

# Criminal networks and illicit wildlife trade

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## Question

*What is the current state of the evidence regarding criminal networks and the illicit wildlife trade in the East and Southern Africa region?*

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## 1. Overview

The illicit trade in wildlife has been estimated to be worth between US\$ 7–19 billion annually, involving a wide range of species including insects, reptiles, amphibians, fish and mammals. It concerns both live, and dead, specimens and products. The specimens and products are used for pharmaceutical, ornamental or traditional medicinal purposes. The current state of the evidence regarding criminal networks and the illicit wildlife trade in the East and Southern Africa region is limited, often relying on limited data and anecdotal evidence. The evidence that does exist, points to an increasingly organised trade involving a diverse range of wildlife and a multitude of actors operating locally and internationally. It encompasses both loose connections between illicit hunters, corrupt officials and much more powerful organised crime networks. There has also been an increasing concern that such networks might be working with militias and terrorist networks which target wildlife to generate funding.

This five day help desk review provides an overview of academic, policy and practitioner literature that examines the illicit wildlife trade and criminal networks. Whilst there exists a broad consensus that illegal wildlife trade is a pressing and growing concern, there is much debate as to what this trade entails and who the key actors are. It is important to highlight that illicit wildlife trade involves a broad range of actions, receiving different levels of attention from various academic, policy and practitioner communities. This being said there is increasing agreement on the stages involved in the illicit wildlife trade and the nature of the criminal networks involved. Key messages include:

- Studies of the illicit wildlife trade and the criminal networks involved, often involve certain assumptions. These require further critical analysis to explore the complex dynamics of the illicit wildlife trade. It is a diverse and fluid phenomenon, confounding attempts to characterise it as a singular trade that can be tackled by a common approach.
- The illicit wildlife trade is not exclusively a problem of extracting high-value wildlife products to generate profits for organised criminal networks. The trade may also be part of local livelihood strategies in poor and marginalised communities.
- Illicit trading networks defy neat categorisations of legal–illicit, state–society, public–private and formal–informal. Rather, they span a range of relationships and links which are difficult to capture using singular and unproblematic definitions.
- The illicit wildlife trade involves a number of broad stages or elements. Providing a breakdown of these enables a greater sense of how criminal networks are formed of different actors up and down the supply chain. The logistics of wildlife trafficking are complex and highly variable across Africa, but there are commonly three distinct phases - poaching, trafficking, and retail. Each of these stages is increasingly professionalised and dominated by criminal and corruption networks.
- The illicit wildlife trade is trans-boundary and involves cross-border criminal syndicates. In the era of global free trade, the ease of communication and movement of goods and money facilitate the operations of groups involved in illicit trade. Driven by perceptions of low risk and high profit, indications have emerged of the illicit wildlife trade attracting greater interest from organised crime groups. These criminal syndicates are moving poached or illicitly harvested wildlife with the help of the same techniques and networks used for illicit trafficking in persons, weapons, drugs etc. The sourcing of wildlife is often undertaken by local groups including pastoralist communities, artisanal or subsistence hunters and even militias and terrorist groups.

## 2. Criminal networks and the illicit wildlife trade

The illicit wildlife trade is regarded as a high profile and pressing issue, it includes a broad range of species that are traded for food, jewellery, clothing, pets, medicines, ornaments and souvenirs (Duffy, 2016). A 2014 report by the United Nations Environment Programme and INTERPOL states that wildlife trade is no longer a marginal issue (UNEP & Interpol, 2014: 7). The trade encompasses demand that is driven by a desire for luxury products as well as for meeting daily needs for food, clothing or medicine (Duffy, 2016: 109). The illicit trade in wildlife has become increasingly sophisticated and poaching of wildlife, especially of high value species (e.g. tigers, elephants and rhinoceros), has increased substantially.

Ayling (2013) argues that any explanation for the persistence of the illicit wildlife trade requires an understanding of the criminal networks involved. These encompass loose connections between illicit hunters, corrupt officials and much more powerful organised crime networks. There has also been an increasing concern that such networks might be working with militias and terrorist networks which target wildlife to generate funding (Wyatt & Kushner, 2014). The emerging picture of the illicit wildlife trade is that organised criminal networks provide the trafficking routes and methods to join together source countries with increasingly wealthy end-user markets, primarily in Asia (Burn et al., 2011).

This assertion is underscored by research commissioned by Interpol who assert that a significant proportion of wildlife crime is carried out by organised criminal networks, drawn by the low risk and high profit nature of these types of crime (UNEP & Interpol, 2014; UNODC, 2015). The same routes used to smuggle wildlife across countries and continents are often used to smuggle weapons, drugs and people. Indeed, wildlife crime often occurs hand in hand with other offences such as passport fraud, corruption, money laundering and murder<sup>1</sup>. Accordingly, there has been a growing concern about the relationships between poaching, wildlife trafficking and regional or global security (Duffy, 2014; Wyatt & Kushner, 2014). These relationships range from those that involve opportunistic criminal groups and enterprises that temporarily engage in the illicit wildlife trade, to organised crime networks that deal in wildlife as well as other products, to illicit wildlife specialists, militias and standing armies that use the trade as a means to finance their activities.

### Challenges in assessing the illicit wildlife trade and criminal networks involved

It is important to note the challenges of making definitive statements about the scale and nature of illicit wildlife trade and the criminal networks involved. Given its illicit nature, those analyses that do exist often rely on limited data and anecdotal evidence. What is clear from these attempts to explore the issue is that the global trade in illicit wildlife is a multi-billion dollar and highly adaptive industry that threatens biodiversity. Despite the broad-sweeping implications of illicit wildlife trade, commentators have yet to describe the scope and scale of the trade (Rosen & Smith, 2010). In what follows I provide a broad overview of caveats that should inform the reading of this report:

- There is a lack of information and understanding of how international markets for traded wildlife operate, data on clandestine markets are limited. The information that does exist

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<sup>1</sup> <https://www.interpol.int/Crime-areas/Environmental-crime/Environmental-crime>

is often out-of-date and frequently conflicting. Quantitative estimates, in particular, are imprecise, often offered only to give a sense of the relative order of magnitude of these problems (UNODC, 2010).

- Studies of the illicit wildlife trade and the criminal networks involved, often involve certain assumptions. These require further critical analysis to explore the complex dynamics of the illicit wildlife trade. It is a diverse and fluid phenomenon, confounding attempts to characterise it as a singular trade that can be tackled by a common approach (Duffy, 2016).
- There are few if any comprehensive reports documenting the global trade in illicit wildlife. In part, this is because the data are inherently incomplete. Confiscation records provide the only available data on the scope and scale of illicit trade. Nevertheless, they offer the best evidence available to begin to describe the number and diversity of wildlife illicitly traded around the world (Rosen & Smith, 2010).
- Efforts to control illicit wildlife trade vary, as effective law enforcement is often impeded by the secrecy of the trade, lack of infrastructure, and a shortage of wildlife law enforcement officers. Without independent records of illicit trade activity and enforcement, no inference can be drawn from these records about a country's effort or progress in controlling illicit wildlife trade (Weru, 2016).
- The illicit wildlife trade is vast in species diversity and geographic scope. Smugglers conceal their goods in a variety of ways. False or invalid Convention on International Trade in Endangered Species (CITES) permits are used, or CITES-listed specimens are concealed among similar-looking non-CITES species. Wild-caught specimens may be falsely declared as captive-bred. Ivory is disguised as wood. In Asia, large quantities of wildlife are transported across borders by truck without any effort at concealment. Amphibians and reptiles are found in luggage at airports. Smugglers of birds and reptiles commonly conceal specimens and eggs on their persons, sometimes in specially designed vests or underwear with pockets to hold their cargo (Rosen & Smith, 2017: 27).
- The illicit wildlife trade is not exclusively a problem of extracting high-value wildlife products to generate profits for organised criminal networks. The trade is also part of local livelihood strategies in poor and marginalised communities (Roe et al., 2014).
- Illicit trading networks defy neat categorisations of legal–illicit, state–society, public–private and formal–informal. Rather, they span a range of relationships and links which are difficult to capture using singular and unproblematic definitions (Duffy, 2016).
- The ability to adapt poaching operations and choose optimal trafficking routes is generally a feature of increased network organisation and capability. There are likely limits to this adaptability (for example a Ugandan regional middleman may easily displace his poaching networks across countries in Central Africa but would find it harder to operate outside the region), however there is some evidence of extreme displacement, such as West Africans trading in Mozambique. The most vertically integrated syndicates may have no regional boundaries at all (Viru & Ewing, 2014).

## Scale of the illicit wildlife trade

Whilst evidence suggests that many African countries have been affected by organised criminal groups, limited attention has been given to a systematic analysis of the problem in South and East Africa (UNODC, 2009). Anecdotal evidence suggests that with the growth of international trade, its geographical location, long coastline, instability along with weak law enforcement

structures, the region has become an important source and transit location for the illicit wildlife trade (UNODC, 2009: 6).

The illicit wildlife trade is a complex logistical enterprise that transports products from Africa to international markets (Lawson & Vines, 2014). Local communities at point of source do much of the physical hunting. It is noted that current levels of poaching cannot be sustained without financial support (Duffy & St John, 2013). Viru and Ewing (2014) suggest that poachers rely on middlemen further up the value chain for weapons, ammunition, rations, and other forms of support. This “seed capital” has allowed illicit criminal networks to indirectly control the scale and location of poaching, as well as indenture local hunters into service (Viru & Ewing, 2014: 10). Professionalisation has changed the paradigm of poaching from that of an “economy of proximity” to a networked transnational enterprise (Viru & Ewing, 2014: 10). Whilst South and South-East Asian demand fuels the trade in wildlife, local hunters do not source directly to organised crime groups. They are instead incentivised by more local sources of demand in trade and transportation hubs around wildlife range areas.

The international wildlife trade is estimated by CITES to include hundreds of millions of plant and animal specimens<sup>2</sup>. CITES note that the trade is diverse, including live animals, plants and an array of wildlife products derived from them, including food products, exotic leather goods, wooden musical instruments, timber, tourist curios and medicines<sup>3</sup>. A number of species such as rhinos, tigers, great apes and elephants are also victims of the illicit trade.

In 2005, TRAFFIC Europe estimated that the total legal trade in wildlife (not including fish and timber) was worth € 17.2 billion, equal to US\$ 22.8 billion (Engler & Parry-Jones, 2007: 10). Other estimates list the legal trade at US\$ 25 billion. Illicit trade is estimated to be around one-third of the legal trade, at between US\$ 7.6 and US\$ 8.3 billion (Hacken, 2011). This is reasonably close to the estimate of US\$ 10 billion cited by the Coalition Against Wildlife Trafficking (CAWT), an organisation supported by the U.S. State Department. However, officials of the United Nations Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) highlight that countries’ self-reported data on illicit wildlife trade, can be unreliable (Hacken, 2011: 11).

The scale and magnitude of the wildlife trade has grown tremendously such that income from illicit wildlife trade now ranks among the top global sources of illicit wealth (Weru, 2016). Whilst it is difficult to estimate the total amount of wildlife traded illicitly due to the clandestine nature of the trade, a number of studies have tried to establish values. Table 1 provides a comparison of the scale of illicit wildlife trade compared to other sources of illicit cash.

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<sup>2</sup> <https://www.cites.org/>

<sup>3</sup> <https://www.cites.org/eng/disc/what.php>

Table 1: Scale of illicit wildlife trade as compared to other sources of illicit cash

	<b>Global Financial Integrity 2009 (USD)</b>	<b>Havoscope 2012 (USD)</b>
Drug	\$320 billion	\$323 billion
Counterfeiting Total	\$250 billion	\$450 billion
Humans	\$31.6 billion	\$32 billion
Oil	\$10.8 billion	\$53.64 billion (gas & oil)
<b>Wildlife</b>	<b>\$7.8 to 10 billion</b>	<b>\$19 billion</b>
Timber	\$7 billion	\$30 billion (illicit logging)
Fish	\$4.2 to 9.5 billion	\$23.5 billion (illicit fishing)
Waste Dumping	No data	\$11 billion
Art and Culture Property	\$3.4 to \$6.3 billion	\$10 billion
Small arms and Light weapons	\$0.3 to \$1 billion	\$ 1 billion

Source: Haken (2011) Havoscope (2012) cited in UNEP (2012: 3)

According to Hacken (2011), Sub-Saharan Africa and South-East Asia are the major supply regions for several of the largest illicit animal markets, including elephant ivory, rhino horn, and tiger parts. On the demand side, it is broadly accepted that the largest consumers of illicit wildlife are China, the United States, and the European Union (Hacken 2011). See table 2 for an overview of traded wild fauna in Kenya.

Table 2: Overview of traded wild fauna in Kenya

<b>Group/Species</b>	<b>Part/Form</b>	<b>Destination</b>
Elephant	Ivory (raw & worked)	East Asia
Rhino	Horns	South-East Asia
Cat family (Lion, Cheetah, Leopard)	Skins/live pets	Middle East, Europe, USA
Reptiles (chameleon, lizards, snakes and tortoises)	Live pets, venom	Europe, America, Asia
Pangolin	Live specimens, scales	East and South-East Asia

Source: R. Muasya, Kenya Wildlife Service cited in Weru (2016: 12)

## Stages of the illicit wildlife trade

The illicit wildlife trade involves a number of broad stages or elements. Providing a breakdown of these enables a greater sense of how criminal networks are formed of different actors up and

down the supply chain. The logistics of wild life trafficking are complex and highly variable across Africa, but there are commonly three distinct phases - poaching, trafficking, and retail. UNEP and Interpol (2014) comment that each of these stages is increasingly professionalised, dominated by criminal and corruption networks. Viru and Ewing (2014: 10-11) provide a descriptive account of these stages.

**Poaching:** During the poaching phase, animals are killed and valuable parts removed. Poachers - often poor subsistence farmers - are recruited by organised crime figures from African bush towns that act as trafficking middlemen. These middlemen outfit the poachers with weapons and supplies. At this stage, profits are lowest and adverse human impact highest. Poaching parties comprised of 10 individuals or more are paid as little as \$30/ kg for their time in the bush, a fraction of the value of animal parts at Asian retail prices, or even at prices in intermediate African trafficking hubs (Viru & Ewing, 2014: 10). Marginalised populations living along the peripheries of ranges bear the full brunt of the trade's negative externalities: militarisation and banditry, increased petty corruption, and the destruction of tourist-drawing nature reserves.

According to Viru & Ewing (2014: 11) actors up the supply chain are able to "capture" poorer neighbours, turning artisanal hunters and local actors into the agents of a transnational criminal enterprise. Poaching is not a uniform enterprise, and local trends play an important role in influencing the nature of poaching and the manner in which poachers interact with middlemen, "kingpins," and individual traffickers. Table 3 highlights flows of ivory goods within Africa.

**Trafficking:** Once animal parts have been poached, these are transported to a retail market, generally in Asia. Trafficking can be roughly divided into two stages, the first of which includes all trafficking activities within Africa, before the contraband is packaged into a container (containerised) for international transport. Here, profits begin to rise, principally accruing to individuals whose actions drive the trade: the middlemen, corrupt politicians, conflict generals, and logistics specialists (Viru & Ewing, 2014). The second phase of trafficking encompasses all activities after a consignment is containerised. This division is not arbitrary; it is generally at this stage that transnational syndicates and Asian organised crime get involved in the trade.

**Retail:** At the retail phase, animal products are worked, carved, and sold, generally in an Asian country. Further analysis of retail markets is essential to forging a long-term solution to the poaching crisis.

Table 3: Ivory hot spots and flows

Poaching area	Poaching pressure	Approximate Elephant Population	Main Ivory Exit Routes
DRC	High, Decreasing	4,704	Uganda, Kenya, Sudan
CAR/Chad Northern Cameroon	High, Decreasing	2,131	Sudan, Libya
Gabon/ROC Southern Cameroon	High, Increasing	74,584	Togo, Cameroon, Nigeria
Tanzania Northern Mozambique	High, Increasing	74,629	Tanzania, Kenya, Mozambique
Southern Mozambique/ South Africa	Low*	23,889	Mozambique, South Africa
Kenya	Medium, Increasing	27,136	Kenya
Zimbabwe	Medium, Increasing	51,141	Zimbabwe, Mozambique, South Africa

\* In South Africa, the trade is primarily in rhino, where poaching levels are high, and rising

Source: Viru & Ewing (2014: 11)

### 3. Actors and groups involved in the illicit wildlife trade

The illicit wildlife trade is trans-boundary and involves cross-border criminal syndicates. In the era of global free trade, the ease of communication and movement of goods and money facilitate the operations of groups involved in illicit trade (EIA, 2008). Driven by perceptions of low risk and high profit, indications have emerged of the illicit wildlife trade attracting greater interest from organised crime groups (UNEP, 2012). These criminal syndicates are moving poached or illicitly harvested wildlife with the help of the same sophisticated techniques and networks used for illicit trafficking in persons, weapons, drugs and other contraband (Scanlon, 2012). Simultaneously, the sourcing of wildlife is often undertaken by local groups including pastoralist communities, artisanal or subsistence hunters and even militias and terrorist groups. Below is a brief overview of the range of groups involved in wildlife crime and trade (Viru & Ewing, 2014; ESAAMLG, 2016: 22-28; Weru, 2016):

**Subsistence or artisanal hunters/poachers:** Weru (2016) comments that poaching and trafficking networks are usually diffuse but highly integrated. The poachers are often locals with knowledge of the terrain and affiliated with one or more middlemen (Weru, 2016). Analysis undertaken by the ESAAMLG (2016) highlighted that member countries identified poverty as the driving force for subsistence poachers, exploited by syndicates to coerce people to take part in poaching activities. The poachers take high risk for comparatively little reward. They will usually pass the horns to a syndicate member after the killing has been done.

These groups initially poached to supply local markets, but the emerging trend is that they have been co-opted or crowded out by an illicit commercial trade that is monopolised by organised

crime, and enabled by government functionaries, security forces, and businessmen (Weru, 2016). Poachers that are not connected to networks will often be involved in killing animals, but usually expose themselves to arrest while searching for buyers.

Not all actors in the market are full-time professionals, however, and some of those sourcing wildlife products may be informal participants. Hunting remains a form of livelihood for communities in both Africa and Asia (UN, 2010). Poachers may also approach local hunters with an offer to buy the wildlife products desired (UN, 2010: 152).

**Professional poachers/snipers:** Well-organised groups have been documented, and it is clear that some have turned the illicit wildlife trade into a business (ESAAMLG, 2016). ESAAMLG (2016) found that unlike subsistence poachers, professional poachers/snipers have well-structured operations and use high technology methods for poaching activities.

ESAAMLG (2016) found that they are occasionally in formal employment, in some other profession or in business (e.g. police officers, soldiers, security intelligence operatives, etc.). Their role is to procure firearms, spot/track and kill the animals. In contrast to subsistence poachers, snipers are contracted on account of their perceived expertise in killing specific targeted animals, as well as their skills in using firearms. ESAAMLG (2016) note that in some countries, especially those with a recent history of conflict, poachers have had military training. This group sometimes involves experienced criminal gangs that are part of a more organised and structured group.

**Corrupt officials:** Every year, the national parks of Africa and Asia report thousands of cases of poaching. It is unclear how many of these cases involve the collaboration of rangers. The concentration of endangered species in game parks may make the professional poacher's job easier. If they are able to corrupt game wardens, they can secure access to a steady stream of well-tracked and healthy animals (UNODC, 2010: 152).

**Militant and terrorist groups:** The links between the illicit wildlife trade and militant and terrorist groups, while they have received wide coverage, are tenuous. The United Nations report that Al-Shabaab in Somalia use proceeds from illicit charcoal trade to finance their operations, earning between US\$ 38 and US\$ 68 million a year from charcoal sales and taxation (UNODC, 2015). However there is no conclusive evidence that al-Shabaab is also involved in the illicit trafficking of ivory, rhino horn, or other wildlife products. Indeed, a study by Schneider (2014) argues that the linkages between ivory trafficking and terrorist groups are exaggerated and at times imaginary.

In contrast, other known militia groups operating in central African countries and South Sudan may be benefiting from illicit ivory transhipped through Kenya (UNODC, 2015). A study commissioned by the United Nations Environment Programme (UNEP) and INTERPOL has linked ivory trafficking worth US\$ 4–12 million each year to the Janjaweed militia operating in Sudan, Chad and Niger. The report also describes how the poaching and trafficking of forest elephants provides income for militia groups in the DRC and Central African Republic (CAR), likely including the Lord's Resistance Army (LRA) (UNEP & Interpol, 2014; Schneider 2014).

**The military:** Historically, militaries have been able to dominate poaching because they were among the few organisations with the logistical capability to access global markets (Viru & Ewing, 2014). The role of standing armies or the use of poaching and smuggling as part of a war strategy by states is often overlooked in debates about the illicit wildlife trade; yet high-value wildlife products are highly 'lootable' and have served as the financial underpinning for numerous

conflicts across sub-Saharan Africa, including Uganda in the 1970s and 1980s, Angola and Mozambique in the 1980s and the Great Lakes region since 1996 (Humphreys & Smith, 2011).

Today, the environment is different. Better infrastructure, technology, and individual empowerment have facilitated the expansion of illicit transnational economies, including in wildlife. Most subsistence or artisanal poaching for supply to local markets has since been co-opted or crowded out by an illicit commercial trade that is monopolised by organised crime, and enabled by government functionaries, security forces, and businessmen (Viru & Ewing, 2014).

**The porters (transporters):** According to EASSMLG (2016), porters are the individuals that establish and maintain radio contact with the snipers (poachers). Law enforcement agency reports indicate that the snipers inform the porters of the location of a shooting, and direct them to retrieve the tusks and/or horns. Their role is to carry them through secret routes to the point at which they will be passed on to intermediaries. The latter may be involved in some of the transportation, if distances are long, by picking up consignments at agreed points.

**Possible involvement of corrupt public officials and law enforcement:** According to EASSMLG (2016), member countries indicated that they had identified cases in which law enforcement officials had been involved in illicit wildlife trafficking for financial gains by corruptly assisting the criminals. However, the countries could not indicate methods in which finances or bribes were channelled to such corrupt officials.

**First level intermediaries:** Usually located in an urban area to receive the products from the porters and arrange further transportation to the dealer. Also responsible for hiring of lower level actors and for paying them. The types of businesses in which intermediaries tend to be involved in the ESAAMLG region are cash intensive. In retail, they would involve fast moving merchandise, such as clothing, textiles, construction equipment and pharmaceuticals. Cash generating businesses are strategic. They provide a pretext for possession of large sums of money, which can be mingled with proceeds of trafficking.

**Second level intermediaries:** They are often closely connected to markets, which are predominantly Asian. This level of intermediary has a presence in the ESAAMLG region, often disguising illicit activities through running a legitimate, but often-strategic business in commodity import/export, transportation, pharmaceuticals, scrap metal or general retail. Familiarity with customs processes and personnel is considered to be important, as is access to trade routes.

**Alternative to first and second level intermediaries (as per above):** There may be only one level of intermediary, who is based locally but connected (by nationality or/and through trade relationships) with dealers in Asia.

**Courier:** Usually hired by 2nd level intermediaries for cross border transportation of products. Consignments transported by air are usually accompanied by couriers, and may be concealed in diplomatic luggage. In the case of larger volumes or consignments that are bulky in nature, shipment is preferred. Risk of detection determines whether it is necessary to involve a shipping agent or the operator of the vessel (ESAAMLG, 2016).

**Processing points and retail markets:** Following its procurement, ivory and rhino horns have to be transported to processing points and retail markets, most of which are currently in China, Taiwan and Vietnam. It is generally at this stage that transnational syndicates and organised crime get involved. A growing number of intermediaries are expatriate Chinese and Vietnamese nationals living in Eastern and Southern Africa (ESAAMLG, 2016).

Table 4: Wildlife from Africa and South-East Asia to Asia

<b>Route</b>	
Source	Elephants from Central Africa; rhinoceros from South Africa, Zimbabwe and north-east India; various wildlife from Myanmar, Cambodia and the Lao People's Democratic Republic
Vector	By sea and air from Africa; by land and sea within Asia
Destination	China (including Taiwan, Province of China and Hong Kong, China), Viet Nam, Japan and other parts of Asia
<b>Dimensions</b>	
Annual market volume	Elephant ivory: 75 tons Rhino horn: 800 kilograms Tiger parts: Perhaps 150 tiger skins and about 1,500 kilograms of tiger bones
Annual value at destination	Elephant ivory: US\$ 62 million Rhino horn: US\$ 8 million Tiger parts: US\$ 5 million
<b>Traffickers</b>	
Groups involved	Asian expatriate communities in Africa and Asia Elephant ivory: Militias, rural Africans, businesspeople in Asia and Africa Rhino horn: Organised poaching gangs
Residence of traffickers	Poachers in source countries, wholesalers in Asian and Africa, retailers in Asia and Africa
<b>Threat</b>	
Estimated trend	Elephant Ivory: increasing in some areas Rhino horn: sharply increasing
Potential effects	Tigers and black rhinos may become extinct in the wild; impact on south-East Asian wildlife unclear; promotion of corruption and organised crime.
Likelihood of effects being realised	For tigers, high; for black rhinos, fair

Source: UNDOC (2010: 151)

## Structure of poaching and trafficking networks

Poaching and trafficking networks are diffuse, spread over numerous individuals linked, at times, by sophisticated financial, intelligence sharing, and transportation networks (UNODC, 2010). Poachers are typically linked to an individual affiliated with one or more middlemen or patrons who, through corrupt means, provide or facilitate access to operational logistics, namely weapons, intelligence on ranger movements, supplies and financing (Virus and Ewing, 2014).

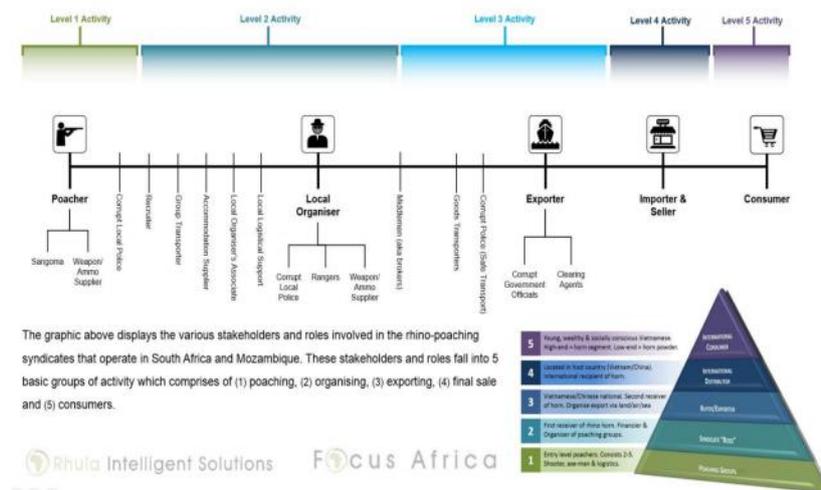
Commentators highlight that poaching has evolved from an “economy of proximity”, in which the primary determinant of poaching was access to wildlife, into an “economy of networks” that links together multiple regions, skillsets, and areas of control within a single ‘syndicate’ (Viru & Ewing, 2014). It appears relatively rare for transnational traffickers to source directly from the forest periphery, or from actual poachers. Instead, a series of local middlemen funnel supplies to a “regional middleman” who serves as an intermediary between local supply and international demand. These individuals or entities coordinate relations between the African and South and South-East Asian end of operations, and generally manage operations prior to containerisation.

African patrons, by virtue of their access to transnational traffickers and their control of local ivory flows, can command significant shares of profit, and can afford to distribute higher than average wages down the value chain (Viru & Ewing, 2014). Their ability to outbid local demand (in addition to available recourse to violence or coercion) allows relatively smaller numbers of syndicates and individuals to dictate the terms of regional poaching and control its scale. Two models of poaching are commonly identified (Viru & Ewing, 2014).

**The “landlord model”**, the poaching patron owns or controls elephant ranges, and can either directly control the hunting or rent out controlled access. Such a network often has a hierarchical form of organisation with static control of territory and strong direct control over hunting parties. The model is best associated with the case studies of Tanzania and Zimbabwe, where powerful businessmen and politicians own licenses or exert strong influence over hunting and safari concessions, and thus seem to be able to control the scale and manner of hunting on their lands.

**The “distributor model”** features a patron who supplies equipment, but exercises little direct control over the hunting. Variations of the distributor model are common and can overlap the landlord model. Conflict generals in the DRC are examples of the distributor model. They supply arms and ammunition to militant groups, and expect ivory to flow back up the chain to their criminal networks, but appear to have little concern over how and where hunting occurs.

Figure 2: Poaching Criminal Syndicate Supply-Chain



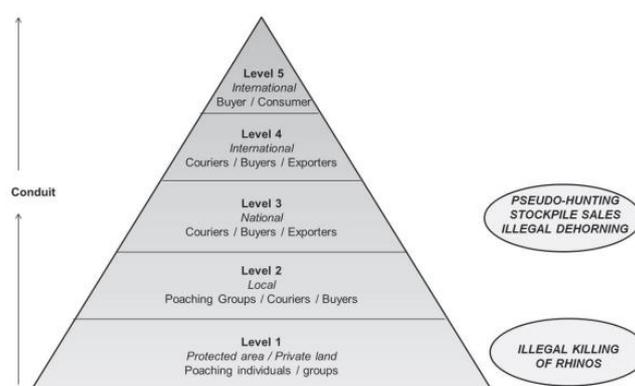
Source: Focus Africa Foundation (2016)

## Structure of rhino horn trade syndicates

The rise in more organised forms of commercial rhino poaching has been detailed in the International Union for Conservation of Nature (IUCN) African Rhino Specialist Group report to the CITES CoP15. It indicated that between 2005 and 2009, the number of rhino deaths due to snaring had declined, while death by shooting had increased (Milliken et al., 2009: 4).

The National Wildlife Crime Reaction Unit (NWCRU) in South Africa has identified five levels at which rhino horn trade syndicates are operating within and outside South Africa (see figure 1). Illicit rhino horn trade occurs along a chain that extends from the poacher at a local level in an African range State to an end-use buyer at an international level, generally in an Asian country and, more specifically, usually Viet Nam. Middleman buyers, exporters and couriers all play roles along the trade chain, dealing with horns derived from all sources, including sport hunted trophies, stock thefts and poached animals (Milliken, 2012: 78).

Figure 2: Levels of organised crime involved in rhino horn trade



Source: Milliken (2014: 18)

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## About this report

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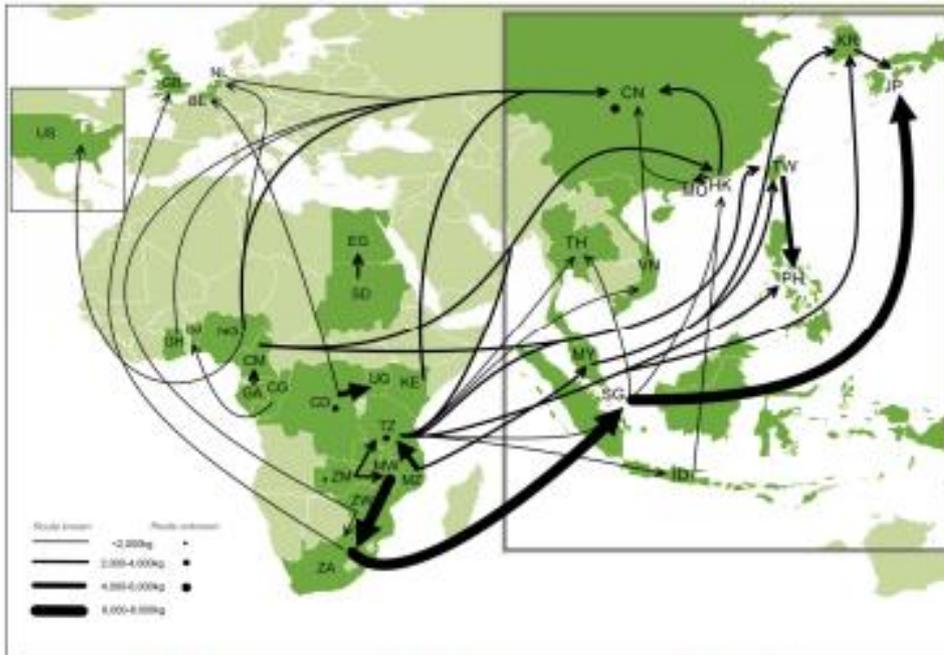
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## 5. Annex 1: Trade routes for seizures of Ivory (2000-2011)

**Figure 8:** Trade routes for large-scale (>500kg) seizures of ivory, 2000 – 2008 (ETIS, 03 November 2013)



Note: The insert map of Asia is at a larger scale than the rest of the map; most trade from CG, CM, GH, KE, MZ, NG, TZ and ZA is by sea even if directional arrows cross landmasses.

**Figure 9:** Trade routes for large-scale (>500kg) seizures of ivory, 2009 – 2011 (ETIS, 03 November 2013)



Note: The insert map of Asia is at a larger scale than the rest of the map; most trade from KE, NG, TZ and ZA is by sea even if directional arrows cross landmasses.

Source: Milliken (2014: 10)