The criminal supply chain

Rhino horn trafficking as a form of transnational organised crime 2012-2021

2022 GLOBAL THREAT ASSESSMENT
The Wildlife Justice Commission acknowledges the immense challenges facing law enforcement agencies that are investigating the transnational organised criminal networks trafficking in rhino horn. These challenges include legislative deficiencies, insufficient resources, mandate, technical capacity, intelligence sharing issues, and of course, the scourge of corruption. We also pay our respects to those officers and rangers who have paid the ultimate price and those who continue to risk their lives on the frontline preventing the poaching of rhinos and investigating these criminal networks.

The Wildlife Justice Commission is committed to continuing to support law enforcement agencies as they work to end the trafficking of rhino horn.

It is with this mission that we produce this threat assessment. It aims to share strategic intelligence that identifies and provides insights on present and emerging organised crime threats relating to rhino horn trafficking. It interprets and analyses intelligence holdings and information from open sources to build the global intelligence picture, propose hypotheses about the immediate or imminent threats, identify where intelligence gaps exist, and highlight vulnerabilities that could become potential threats in the future.

We hope that this assessment will go some way towards assisting law enforcement agencies working across the illegal rhino horn supply chain to maximise their response and impact in addressing this issue, and to continue to build on the important progress and achievements that are being made.

The full report is set out in 10 chapters covering key criminal elements of the illegal rhino horn trade.

Recognising the density of detail in the report, each chapter is written to be able to be read as a standalone topic with the aim of making the report more accessible and useful for policy makers, practitioners and researchers interested in a specific aspect of criminality. The stand alone publication focuses on the criminal supply chain.
Acknowledgements

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## Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>AIS</td>
<td>Automatic Identification System</td>
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<td>ANAC</td>
<td>National Administration of Conservation Areas</td>
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<td>ASB</td>
<td>Anti-Smuggling Bureau</td>
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<tr>
<td>CITES</td>
<td>Convention on International Trade in Endangered Species of Wild Fauna and Flora</td>
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<tr>
<td>DFFE</td>
<td>Department of Forestry, Fisheries, and the Environment</td>
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<td>DRC</td>
<td>Democratic Republic of Congo</td>
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<tr>
<td>EEFC</td>
<td>Environmental Enforcement Fusion Centre</td>
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<tr>
<td>FRELIMO</td>
<td>Liberation Front of Mozambique</td>
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<tr>
<td>HAWKS</td>
<td>Directorate for Priority Crime Investigation</td>
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<tr>
<td>KLIA</td>
<td>Kuala Lumpur International Airport</td>
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<tr>
<td>OBK</td>
<td>Operasi Bersepadu Khazanah</td>
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<tr>
<td>PDR</td>
<td>(Lao) People’s Democratic Republic</td>
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<tr>
<td>PERHILITAN</td>
<td>Department of Wildlife and National Parks Peninsular Malaysia</td>
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<td>RMB</td>
<td>Chinese Renminbi</td>
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<td>SANParks</td>
<td>South African National Parks</td>
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<td>SAPS</td>
<td>South African Police Service</td>
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<td>SAR</td>
<td>(Hong Kong) Special Administrative Region</td>
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<td>SERNIC</td>
<td>National Criminal Investigation Service</td>
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<td>TCM</td>
<td>Traditional Chinese medicine</td>
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<tr>
<td>UNODC</td>
<td>United Nations Office on Drugs and Crime</td>
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<tr>
<td>USD</td>
<td>United States Dollar</td>
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<td>VND</td>
<td>Vietnam Dong</td>
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Rhino horn trafficking remains a severe problem that needs to be addressed with a new sense of urgency as transnational organised crime. Over the past 10 years, the illegal killing of rhinos and trafficking of their horns has grown as a global criminal enterprise, comprising multiple criminal components dominated by greed and the pursuit of substantial profits.

This threat assessment presents a comprehensive analysis of rhino horn trafficking during the decade from 1 January 2012 to 31 December 2021.

It was compiled following analysis of 674 rhino horn seizure incidents collected from open-source reports that occurred globally during this decade, in addition to seven years of criminal intelligence and findings from Wildlife Justice Commission investigations into rhino horn trafficking conducted since 2015, and other open-source research.

This assessment aims to examine the driving forces behind the trade and changes in the criminal landscape. It also considers the threat to rhinos in 2022, with recommendations to help inform interventions to address this issue and ensure the global response is commensurate and appropriately targeted to current and future needs.
Since 2015, the Wildlife Justice Commission has collected extensive volumes of intelligence and evidence on the composition of criminal networks and the inner workings of the rhino horn supply chain from Africa to Asia. These investigations have focused on major source, transit, and destination locations of concern, primarily South Africa, Mozambique, Malaysia, Vietnam, and China. This chapter is largely based on a compilation of these findings over the past seven years, interspersed with additional information collected from open sources. While it does not provide a complete picture of the entire global supply chain, it does provide valuable insight into how a large proportion of rhino horns are moving via trafficking networks that operate as organised criminal businesses with clear roles and responsibilities of individuals facilitating the movement of goods from source to consumer.

1. Sanitised intelligence and findings from seven years’ worth of Wildlife Justice Commission investigations are interwoven throughout this threat assessment to provide context and insights into changes in the criminal dynamics of rhino horn trafficking. Where information is drawn from any other source, it is referenced with footnotes and acknowledged as such. Any non-referenced information, inferences or interpretation should be understood as being sourced from Wildlife Justice Commission intelligence analysis.
KEY FINDINGS

- The decade since 2012 saw the increasing prominence of Mozambican poaching networks operating in South Africa.

- Poached horns continue to be a key source for the illicit supply chain, primarily from South Africa where poaching rates remain high despite decreasing more than 50% since the peak in 2014, but also from other key range States including Botswana, Namibia, and Zimbabwe.

- Intelligence indicates that diverting harvested horns from privately-owned stockpiles in South Africa has also become a major source of rhino horns in illegal trade.

- Prolific Vietnamese and Chinese criminal networks are driving rhino horn trafficking throughout the supply chain.

- After export from Africa, rhino horn shipments generally move through one or more transit points before reaching the intended destination.

- Switching bills of lading, unloading and repacking products in new shipments, utilising front companies, and exploiting corrupt customs and transportation connections to facilitate the clearance of shipments are common trafficking modus operandi.

- A substantial proportion of rhino horn entering Vietnam is sold to Chinese buyers and smuggled overland into China, suggesting that although Vietnam plays a major role in the illegal trade, the significance of its domestic market may have been previously overstated.

- Small retail markets for rhino horn also exist in Cambodia, Lao PDR, Myanmar, Thailand, Japan, South Korea, and Taiwan.
3.1. Rhino poaching and supply of rhino horn

Although all the major African rhino range States have been affected by poaching to varying degrees, South Africa and its largest wildlife reserve, Kruger National Park, have consistently been at the epicentre of the crisis. As the main target of rhino poaching networks since 2008, South Africa is the fundamental starting point for analysis of the criminal supply chain.

Up to 2012, rhino horn was sourced from the rapid escalation of rhino poaching, the sale of unregistered “loose” horns from privately owned stockpiles, and through “pseudo-hunting” scams in South Africa involving non-traditional hunters from Vietnam and Thailand. The early years of the poaching crisis in South Africa were understood to be largely led by South African poaching groups, with the involvement of a small proportion of corrupt game industry insiders such as game ranch owners and professional hunters, and the use of high-calibre weapons. Although South Africa scaled up its law enforcement response, introduced a moratorium on domestic trade of rhino horn and policy changes to clamp down on abuse of the hunting permit system, poaching rates continued to worsen.

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4. Ibid.
The decade since 2012 saw the increasing prominence of Mozambican poaching networks and deeper entrenchment of Vietnamese trafficking networks operating in South Africa and Mozambique. Poaching rates peaked in South Africa in 2014 and across the African continent in 2015 (Figure 5 of the full report, page 43). Some opponents of South Africa’s trade moratorium argued that it catalysed the increase in poaching to meet the ongoing market demand.\(^5\) Although poaching losses have decreased by more than 50% since these peaks,\(^6\) poaching continues to be a key source of rhino horns.

According to the Wildlife Justice Commission’s intelligence picture, the poaching landscape in Mozambique is a fluid network of poachers who know each other, occasionally coordinate with each other, and access many of the same facilitators including corrupt officials, weapons suppliers, and transport providers. Poaching is coordinated by a relatively small number of individuals, while the organised smuggling of products out of Africa is suspected to be facilitated by even fewer individuals, many of whom have been operating successfully and undetected for several years. The persistent involvement of many well-known Mozambican nationals who are able to evade law enforcement detection, as well as the emerging presence of newer players, implies that the illegal trade remains attractive to criminals.

At this early stage of the supply chain, there are three main roles of individuals in the supply of poached rhino horn:

- **Poaching coordinators** organise teams to poach rhino horn on their behalf.
- **Facilitators/brokers** support rhino horn transactions by brokering introductions and meetings.
- **Traffickers** sell and/or smuggle larger quantities of products to the international market.

**Poaching coordinators**, known locally as “bosses” in Mozambique, typically mobilise multiple teams of three poachers to enter Kruger National Park. Many poaching coordinators are known to be based in Massingir, which is in close proximity to the eastern border of Kruger National Park, Mavodze just to the north which borders Limpopo National Park, or Magude. From data collected in South African court case records, 10 accused poachers indicated that their recruiter

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6. Poaching rates in South Africa steadily declined from 2015 to 2020, but it wasn’t until 2018 that the rate dropped below 1,000 rhinos killed per year. Less than 500 rhinos were killed in 2020 and again in 2021, although the rate increased by 14% in 2021 compared to 2020. In 2021 the poaching rate has returned to equivalent levels seen in 2011 in the early years of the crisis, which was viewed as “alarming” at that time. [https://www.dffe.gov.za/mediarelease/rhinopoaching_2021](https://www.dffe.gov.za/mediarelease/rhinopoaching_2021)
was based in Mozambique, typically in Magude or Massingir. Recruiters were also identified as being based in locations in South Africa around Kruger National Park, such as Mkhuhlu and Matsulu. Poaching coordinators are not directly involved in poaching activities, but instead manage the organisation, facilitation, and supervision of poachers on the ground. Each poaching team is equipped with a high calibre hunting rifle (often fitted with a silencer), a tool to remove the horn such as an axe, and supplies to sustain them for several days in the bush. Incursion points into the park vary and many poaching coordinators travel long distances from their towns and recruitment grounds to drop off poaching teams. Kruger National Park rangers have also identified poaching teams that have travelled over 100 km on foot from incursion points.

South African court case records detail the ‘drop-off’ modus operandi used by South African poaching teams. In these incidents, the driver enters Kruger National Park alone, and obtains an individual permit for himself and exits on the same day, only to return later that day with a group of poachers he intends to drop off to engage in poaching. In doing so, he obtains a permit for himself and a group permit. If stopped, the driver can avoid suspicion and detection by offering the individual or group permit, as applicable. South African Police Service (SAPS) advised that drop-offs are a significant challenge to anti-poaching and law enforcement efforts as it is difficult to detect an incursion and thereafter follow up and carry out an arrest.

Figure 1: Map showing key entrepôts in Mozambique for illegal rhino horn trade in relation to Kruger National Park.

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Rhino horn, hunting equipment and weapons are concealed in vehicles in various ways including in engine compartments, roof consoles, door panel cavities, under or behind rear seats, and so forth.

Intelligence collected by the Wildlife Justice Commission indicates that recruitment grounds and penetration points into Kruger National Park are varied as a tactic to evade detection, but also to avoid an over-concentration of poaching activities in a single area. Poaching coordinators appear to be aware of where other groups are operating, indicating a level of coordination between them. They also have suspected connections with corrupt rangers working with Kruger National Park and Limpopo National Park, who scout out where rhinos are roaming and forward this information to the poaching coordinators, who arrange to deploy their poaching teams in those locations.

Although the eastern boundary of Kruger National Park is closest to key poaching bases in Massingir, Mavodze, and Magude, intelligence received at the end of 2021 indicated a change in modus operandi as poaching teams from Mozambique were being transported to the western border of the park and entering from that side.

**Facilitators/brokers:** Once the rhino horn is collected from the poaching grounds, intelligence indicates it is trafficked through one or more middlemen or “facilitators”, who are usually low-level traders operating in the vicinity of poaching areas. These actors are the connecting link between the poaching coordinators and the traffickers for the onward movement of products through the supply chain. Intelligence suggests the horns are usually transported in vehicles that are specially modified with secret compartments to conceal the contraband and weapons. One Mozambican facilitator claimed to have access to five cars with secret compartments that he used to carry rhino horns from South Africa to Mozambique.

Chokwe and Magude are becoming more relevant locations for facilitators, with several known to be based in these towns. For example, two facilitators who are subjects of a Wildlife Justice Commission investigation are partners in a transport company based in Chokwe, with a known history of contact with Massingir-based poaching coordinators and business associations with Maputo-based traffickers. Both men appear to be relatively wealthy, with content on their social media accounts indicating they each own multiple large houses and vehicles.

In South Africa, horns poached in Kruger National Park may be taken by car to Johannesburg or Pretoria to sell. This aligns with findings in Chapter 2 of the full report that point to OR Tambo International Airport as a primary exit point for smuggling horns out of South Africa.

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A potential trend emerging in 2021-2022 among brokers at this stage of the supply chain is the refusal to sell front and back horns separately. There have always been price differences between front and back horns, and front horns are more highly sought after in the trade compared to back horns due to their size. The change to only selling horns as a pair could be due to brokers being unwilling to risk being left in possession of back horns that are more difficult to sell, compounded by the COVID-19 pandemic and more challenging conditions to move products.

Around 2017, the open-air Feima market in Maputo was known as a location for rhino horn traders, although due to its high value it was usually kept off-site and shown to prospective buyers as photographs on mobile phones. Traders at the market could speak a few words of Chinese, including the words for “rhino horn” and “ivory”, and behaved similarly to a network, directing customers to the right stall holder to find the illicit commodity they wanted, and keeping a lookout for each other for any sign of law enforcement authorities. While other wildlife products such as ivory, big cat products, and timber carvings can still be easily procured, it appears that rhino horn traders no longer frequent the market, possibly due to increased law enforcement risk during the last two to three years.

**Traffickers:** Many traffickers in Mozambique are based in Maputo or have strong links to the city, and many are Chinese or Vietnamese nationals. Their role involves the acquisition, storage, and consolidation of rhino horns for packing and export out of the country to Asia, and high-level criminality can be observed among some traffickers operating at this stage of the supply chain. Intelligence suggests that some traffickers are directly connected to poaching coordinators and regularly visit towns where they are based to collect rhino horns.

For example, in 2018, the Wildlife Justice Commission received intelligence that a Chinese national who owned a drilling company in Mozambique was using a private helicopter to transport rhino horn from various locations to Maputo, such as Bilene or Macia, and at times from the bush when rhino poachers returned from Kruger National Park. Unconfirmed intelligence also indicated this suspect sometimes chartered a helicopter to collect rhino horn from South Africa and brought it to Mozambique for consolidation and export.

One of the main methods that traffickers use to smuggle rhino horns out of Mozambique is carrying them in passenger luggage on commercial flights out of Maputo International Airport. Some

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10. Refer to Chapter 5 of the full report for further details on price differences between front and back horns.

11. The Wildlife Justice Commission has assessed several traffickers operating in Mozambique as being Level 5 subjects. Refer to the Methodology section at 1.2 of the full report for explanation of the subject level definitions.
traffickers use VIP tags on hand luggage to avoid baggage checks at the airport. One Mozambican trafficker reported exploiting a “free walk” card to circumvent security at Maputo airport when travelling to China and Vietnam with rhino horn shipments, which he claimed was given to him by FRELIMO party members.12

The other key method is smuggling rhino horns by sea on container ships, with seaports at Beira, Nacala, and Maputo being linked to previous shipments. Undercover engagement with traffickers during Wildlife Justice Commission investigations suggests that many major shipments of rhino horn have been successfully transported by sea over the years. For example, a high-level trafficker in Vietnam who is currently serving an 11-year prison sentence for ivory trafficking, Nguyen Van Nam, discussed a shipment of 300 kg of rhino horn and 10 tonnes of ivory that “floated on the sea” for one month from Africa to Vietnam in 2017. Intelligence collected on a Vietnamese trafficker based in Mozambique indicated he had facilitated a large shipment of 200 kg of rhino horn to Vietnam via shipping container in early 2018. In July 2018, investigators engaged with another trafficker in Vietnam who was arranging buyers for a consignment of 400 kg of rhino horn, 7 tonnes of ivory, and 2 tonnes of shark fins that was arriving imminently by shipping container. This intelligence and the limited number of seizures of maritime shipments suggests this transportation method could be an underrepresented threat for rhino horn smuggling.

A common modus operandi is concealing horns in timber shipments, and several Vietnamese traffickers have been identified as owning timber companies located in or near Beira or having family connections to such timber companies. For instance, intelligence in 2017 indicated that a Vietnamese trafficker stored rhino horns at his family’s timber warehouse in Beira, which were later smuggled out in 20-foot shipping containers filled with cut timber pieces. Another Vietnamese trafficker was also known to have control of a large amount of rhino horn stored in the Beira area in 2018 and had recently facilitated a shipment of 200 kg of rhino to Vietnam via shipping container. Intelligence indicated this same trafficker was in the process of establishing a timber business in Quelimane, a port town about 500 km north of Beira, due to the impact that the Mozambican government’s crackdown on illegal timber trafficking was having on businesses in the Beira region.

Many traffickers have links to legitimate businesses in rhino horn source countries which are exploited to support their criminal operations. This can occur by co-opting contacts, business infrastructure, transportation lines, goods, or services to commit trafficking crimes. The use of timber businesses in

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12. FRELIMO (Liberation Front of Mozambique) is the dominant political party in Mozambique.
Mozambique to store and smuggle products is one example, while others include a major Vietnamese trafficker in South Africa who chairs the Board of Directors of a joint-stock shipping company and a prominent trafficker in Maputo who runs a business specialising in the export of semi-precious stones to Asia and is suspected to smuggle rhino horn and ivory in the same containers.

A clear dynamic that is unique to the illegal rhino horn trade is the swiftness with which it moves through the supply chain. Unlike other high-value wildlife commodities such as ivory or pangolin scales that can be stockpiled until an opportunity to consolidate a shipment presents itself, rhino horn is not handled in the same way. It is commonly available for sale one day and is sold the next. This fast-moving supply chain could be attributed to the desirability of horns to be purchased in a “fresh” condition.

Poached horns are usually between two days old to three months old by the time they exit Mozambique, depending on the length of the poaching trip and the market season. It is possible that air transportation could be the preferred method to smuggle recently poached horns to maintain the freshness, as it is much faster than sea shipments which can take around one month to reach Asian destinations. Poached horns are often wet with flesh and blood still attached to the base of the horn and are known to deteriorate quickly if not dried and packaged properly. In 2017, Wildlife Justice Commission operatives discussed the purchase of horns that arrived in Vietnam by sea with mouldy bases, with the broker admitting: “The base there is a little bit rotten, only outside, it’s ok, the middle and the tip definitely not rotten.” Operatives have also observed traders in Vietnam drying newly imported horns with a hair dryer to prevent them from decaying.
**Supply from stockpiled sources:** Aside from poaching, intelligence from Wildlife Justice Commission investigations indicates that a major source of rhino horns in illegal trade comes from privately owned stockpiles of harvested horns in South Africa. According to traffickers in Asia, it is not only South African nationals who can supply harvested horns, there are also Vietnamese and Thai nationals who own game ranches in South Africa and are involved with this trade as well.

**Processing:** There is the possibility that some processing of rhino horns could occur at this stage of the supply chain, although it is likely to be limited to small quantities. In 2017, South African police uncovered evidence of Chinese-run rhino
horn processing facilities that were producing carved rhino horn products in South Africa prior to smuggling to consumers in Asia. They reported several small home workshops manufacturing rhino horn beads and bracelets for export, along with horn offcuts and powder. Bags of rhino horn offcuts, beads and cylinders have also been seized in Mozambique, although the goods may have originated from South Africa or elsewhere.  

**Other service providers:** Beyond the primary actors directly handling the sourcing and supply of rhino horn products (poachers, coordinators, brokers, and traffickers), there is a substantial layer of secondary actors who provide essential support services such as transportation, facilitation, and money laundering. For example, undercover investigations have identified a Chinese money launderer based in Mozambique who sends and receives funds to and from Vietnam and China to distribute payments to network members based in Africa. In addition, there are officials who benefit from the trade by taking bribes to provide information, protection, or turn a blind eye, such as rangers, local police, or customs officers.

**Supply from other locations:** The sourcing and supply of rhino horn from locations other than South Africa and Mozambique generally involves much smaller quantities of contraband. According to intelligence collected by the Wildlife Justice Commission, traffickers in DRC appear to source their horns primarily from rhinos poached in Kenya, Namibia, and Botswana, and some have used Zambia as a location to store and consolidate horns, particularly during the COVID-19 pandemic. This could have been due to Lusaka being one of the only international airports in the region that maintained regular flights to key destination countries in Asia. During 2020, one trafficker based in DRC claimed to have access to 100 pairs of horns stored in Lusaka, owned by a friend but accessible to him. From there, traffickers recommend sending shipments by air using courier services such as DHL or EMS. Some large shipments are also known to have been shipped by sea, departing from the port of Matadi, DRC and using cover materials such as timber, rubber, green malachite, or coffee. DRC traffickers appear to have less liquidity in their operations, more often requiring the full upfront payment for products.

**Intelligence gap:** The Wildlife Justice Commission is aware of Vietnamese traffickers who appear to be based in southern Africa but travel to Russia and use Russian mobile phone SIM cards to conduct their criminal business, although it is not yet understood how Russia is connected to the rhino horn supply chain.

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14. Refer to Chapter 8 of the full report for further discussion of corruption.
After being exported from Africa, whether by air or by sea, rhino horn shipments generally move through one or more transit points before reaching the intended destination. During this middle stage of the supply chain, the primary role of transporters is to facilitate the international trafficking of the products, ensuring that shipments are cleared through seaports and airports by utilising their connections in customs authorities, freight forwarding agencies, airlines, and shipping and logistics companies.

To avoid detection, transporters often export goods to a specific location under the cover of one bill of lading, from where the shipment will then be re-exported to the destination or to additional transit points under a “new” bill of lading. Complicit clearing agents may switch the bill of lading while shipments are unloaded and repacked, perhaps with new cover materials or in different shipping containers. Transporters may also utilise front companies with existing access to shipping routes and other useful business infrastructure to facilitate the passage of contraband.

### Modus operandi 1: Trafficking via an independent operator

The Wildlife Justice Commission has collected significant intelligence on the inner workings of rhino horn trafficking operations using Malaysia as a transit location. It is believed that since around 2014 one major transporter has risen to control this market, who works as an independent operator with multiple criminal networks in Africa and Asia as his “clients”. He provides transportation services from Africa to Malaysia as a middleman only and does not participate in trade. He can clear shipments in Malaysia and provides an onwards transfer service to other locations in Asia if requested by the client, but he does not provide the clearance of shipments at other locations. As part of his service, he would take financial responsibility if the loss of products occurred in Malaysia, but if they were seized en route to Malaysia or to the destination, the responsibility was not on him.
This transporter appears to vary his modus operandi, sometimes using fictitious Malaysian consignee companies and Malaysian freight forwarders on air waybills and bills of lading. He also varies the transport routes in response to law enforcement controls if necessary. For example, in 2018 he indicated that Vietnam was the main country he transferred goods to, and at that point he had not transferred shipments via Lao PDR for over six months or Cambodia for some time due to “problems”. However, in June 2019, his preference was to send shipments overland to Vietnam via Thailand and Lao PDR, due to tighter controls at Hanoi airport. For this route, the service included a USD 6,000/kg guarantee bond in case any incidents took place during transportation. The bond would be wired to the client once the products arrived safely in Malaysia, and it was expected that the client would pay the bond back plus the transportation fee upon the safe arrival of products in Hanoi. This transporter is known to accept payments in RMB which he requests to be paid into Chinese bank accounts held by Malaysian nationals.

Figure 2: Common criminal enabling factors that facilitate rhino horn trafficking.
The transporter disclosed that his business relies on connections with lower and mid-level customs officers in relevant operational positions, and these established relationships are fundamental to the efficient service he offers to clients. To clear rhino horns smuggled in air passenger luggage, the transporter would request the client to send a photograph of the bag in which the goods were packed. The client or their “representative” would travel on board the flight to Malaysia with the luggage and was instructed to pass through the usual Customs and passport control processes and exit the airport, while the transporter would arrange the clearance of the luggage, collect it from the airport and bring it to a nearby hotel where it would be checked by either the client or the representative. If there were no problems, the transporter will “make a call” for the buyer to release the payment to the seller. The whole process was said to take “no longer than one hour, or 20 minutes if we are fast.”

Since 2016, Wildlife Justice Commission investigations have documented various traffickers operating in China, Lao PDR, and Vietnam who claimed Malaysia to be “safe” and “the easiest” transit point for smuggling rhino horns and other wildlife products from Africa to Asia, regardless of whether they are transported by air or by sea. According to one trafficker, “all (products) go through here (Malaysia)” before being unpacked and reloaded for delivery to other destinations in Asia.

In August 2018, Wildlife Justice Commission investigators witnessed a key meeting in Hanoi, Vietnam between the Malaysian trafficker and his Vietnamese criminal associates, who were discussing options to “buy back” a shipment of 50 rhino horns weighing 116 kg that had been seized by authorities at Kuala Lumpur International Airport (KLIA) two days prior. The horns were seized along with a stash of bones and carcasses of tigers or lions, leopards, and other carnivores, which were destined...
for Vietnam. At that time, it was the largest rhino horn seizure ever made in Malaysia. The seizure was not made public until one week later. It is inferred that the major Vietnamese associate at the meeting was one of the financiers and the intended recipient of the shipment. “I have done more than 10 years, never had anything, this is first, not even my fault... This is not my transportation problem, only because they stink, then it happened,” the Malaysian trafficker declared during the meeting. Separate Wildlife Justice Commission investigations in South Africa confirmed that the shipment had been packed there but was detected and seized in Malaysia due to the strong odour and fluid leaking out of the package, as the owners wanted the products to be shipped to Vietnam as soon as possible, before the bones were properly treated with chemicals.

Modus operandi 2: Trafficking handled within the criminal network

In contrast, Chinese criminal networks are often end-to-end operations, controlling all aspects of the supply chain from product procurement in Africa, packing, shipping, international trafficking, smuggling into China, and final sales to buyers.

An example of this structure is demonstrated by the Chen organised crime group that was successfully convicted in China in 2020 and found to be responsible for smuggling at least 20 tonnes of ivory and rhino horn from Nigeria to China between 2013 and 2019. The group’s structure exemplifies many characteristics that are commonly observed in large Chinese wildlife crime networks. The Chen network was structured as a collection of hierarchically-arranged independent persons, each responsible for the accomplishment of a specific function such as financing, sourcing, logistics, money movement, and so forth. It was a family-led criminal group with authority centralised among a father and his two sons, and it appeared to be set up for long-term operation.

While members of the Chen family were known to travel back and forth between China and Africa to oversee the business, a senior Chinese partner based in Nigeria was responsible for sourcing wildlife products, and other Chinese associates based in Nigeria were responsible for packing shipments and organising the shipping logistics. Maritime shipping via container ships was the preferred transportation method. The network utilised its established timber business settings in Nigeria including contacts, business infrastructure, transportation lines, and access to corrupt actors to commit the trafficking crimes. The timber business also facilitated the concealment method for the illicit shipments, with products hidden inside custom-built wooden crates stashed behind stacked timber planks in the shipping container.

The Chen network sent its shipments from Nigeria to Singapore, where the declaration of goods would be changed to timber produced in Malaysia with a forged certificate of origin. The shipments would then be sent to South Korea and then on to China. The Chen network relied heavily on the use of multiple transit points to obscure the originating port in Africa, as well as bribing officials at customs checkpoints and using complicit freight forwarding agencies to clear the shipments and switch the bill of lading for onwards transportation. In total, 19 members of the network were arrested and convicted by Chinese law enforcement, demonstrating the size of the network stretching from source to market.

**Modus operandi 3: Recruiting couriers to hand-carry shipments**

Intelligence from another Chinese rhino horn supplier based in South Africa suggests he often recruits newly released prisoners from China to go to South Africa and act as couriers, smuggling rhino horns in smaller quantities in hand-carried luggage back to China.

**Testing new routes**

A Vietnamese trafficker based in South Africa told Wildlife Justice Commission investigators that when testing a new maritime shipping route, he would first transport legal commodities that could be used as a potential cover material, such as cow hides, to see how well the export goes. He would trial the route in this way a few times, developing a history of legitimate trade in the product, and then start to include “real products” in the shipments.

**Frequency of trafficking**

Intelligence indicates that rhino horn is trafficked from Africa to Asia in large volumes and with high frequency. The Malaysian transporter claimed to work with clients who are shipping rhino horn every month, by air and sea transportation. In 2018 he said he was transferring two or three shipments of at least 50 kg each per month, while the previous month (May 2018) he had moved 300 kg of horn. A Vietnamese trafficker claimed that prior to 2019 when the “road was open” an average of two batches of rhino horn were leaving South Africa every week bound for Asia, the majority of which was poached horn. He said shipments had slowed since then, and more traffickers were starting to build cooperation with private farms to supply horns. Around 2016-2017, another major Vietnamese network in Mozambique claimed to be exporting 100-150 kg of horn per month to Vietnam and offering fast deliveries within 48 hours of placing the order.

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17. The “open road” metaphor is often used by traffickers to describe safe smuggling routes, so when a road is no longer open, it is considered to be high-risk for law enforcement detection.

3.3. Sale of rhino horn in destination markets

The final stage of the supply chain is the destination countries where wholesale traders receive the rhino horn shipments and raw horns are sold to buyers for processing and further onwards sale. Evidence from investigations shows that prolific Vietnamese and Chinese criminal networks are driving rhino horn trafficking throughout the supply chain, and naturally dominate the trade in the destination markets. The seizure data corroborates this, indicating that rhino horn shipments are primarily destined for Vietnam and China.

However, Wildlife Justice Commission investigations have found that a substantial proportion of rhino horn entering Vietnam is sold to Chinese buyers and smuggled overland into China, suggesting that the significance of the domestic market in Vietnam may be overstated in the public sphere. To demonstrate, intelligence received in 2022 concerning a prolific Vietnamese criminal network involved in the wholesale supply of high-value wildlife commodities reports that a stash of 300 kg of rhino horn is currently stuck in Vietnam. The network has been struggling to move the horns into China and is frustrated with this situation due to the loss of revenue this represents.
Vietnam is a crucial gateway for rhino horn trade into China and a conduit between Africa and China, likely due to the lower law enforcement targeting and resourcing to tackle these crimes compared to China that has enabled the trade to flourish in particular hotspots. Small retail markets for rhino horn also exist in other locations including Lao PDR, Cambodia, Korea, Japan, and Taiwan.19

At this stage of the supply chain, the structures in both Vietnamese and Chinese criminal networks have been found to comprise a similar range of distinct roles to facilitate the trade at the wholesale level.

Beyond the wholesale buyer are the roles involving processing raw rhino horns into carved products, sale to retail traders, sale to end consumers in physical and online markets, transport and delivery, and other associated services; however, these are considered a secondary layer of actors that typically occur outside the realm of the major criminal networks.

Wholesale market characteristics in Vietnam

“If you know who to talk to, you’ll find there’s a lot of rhino horn available in Vietnam.”

– VIETNAMESE TRAFFICKER, MAY 2021

Vietnam’s role in the supply chain has evolved over the past 10 years to be a hub for wildlife trade where a range of products are imported, collected, and then distributed to other places. Rhino horn shipments typically enter Vietnam at Hanoi (by air) or Haiphong (by sea) in the north, Ho Chi Minh City (by air or sea) in the south, or Danang (by sea) in the centre of the country. They are then transported domestically for sale or temporary storage by train, truck, or plane. At times when the main ports of entry have been deemed too risky, shipments are known to have entered Vietnam overland via Lao PDR.

Major seizures such as a shipment of 138 kg of rhino horn and 3.1 tonnes of lion bones at Danang

seaport in July 2021\textsuperscript{20} and a shipment of 126.5 kg of rhino horn at Hanoi airport in July 2019\textsuperscript{21} exemplify the large volumes of rhino horn entering Vietnam. Undercover engagements with brokers also suggest vast amounts of horn are available and move quickly in the trade. Buyers are requested to place orders before the products arrive from Africa as brokers tend not to keep rhino horn in stock, unlike other wildlife products such as ivory and pangolin scales.

Nhi Khe village near Hanoi was known as a key physical market for rhino horn trade from as early as 2012. Wildlife Justice Commission investigations found the market to be driven to supply an almost entirely Chinese clientele with worked rhino horn products. Prices were quoted in Chinese Renminbi (RMB), interpreters played a pivotal role in connecting Chinese buyers with Vietnamese traders and facilitating negotiations, and payments were made in RMB to Chinese bank accounts. In addition to physical trade at premises in Nhi Khe, traders were also widely using WeChat and, to a lesser extent, Facebook to advertise illegal wildlife products. While some customers appeared to be Chinese tourists shopping for small items, others appeared to be businessmen looking to purchase wholesale products for their retail business in China. It is believed that the market at Nhi Khe developed off the back of existing legitimate business links with China, with many shops trading timber or rosewood products to timber shops in Guangxi, and guaranteed impunity provided by corrupt local authorities.\textsuperscript{22}

Delivery to China was usually only offered for specific routes, with an apparent preference for smuggling overland into Guangxi province via Pingxiang and Dongxing border towns. For a greater fee, onwards shipment to other locations in China could be arranged. Some traders would send smaller items by postal service. Larger quantities could be delivered faster (on demand), while smaller quantities took longer as sellers would pool consignments together and cooperate to deliver.

Intelligence indicates that some Vietnamese brokers provide additional services to entice Chinese customers and make the purchasing process as easy as possible. For example, some brokers offered to support Chinese guests with visa assistance to visit Vietnam and view products. They would recommend particular hotels to stay at in Hanoi, and if a purchase was made, the broker would pay the bill for accommodation and meals, drive them to the border to return to China, and arrange the transportation of goods separately.

\begin{itemize}
\item \textsuperscript{22} Wildlife Justice Commission (2017), \textit{Black Business: Illegal rhino horn trade dynamics in Nhi Khe, Vietnam from a criminal perspective}. \end{itemize}
Some Chinese brokers are also known to have moved to Vietnam to conduct their business. In 2016, one broker told a Wildlife Justice Commission investigator that he originally came from Fujian province in China but had been living in Vietnam for about a year to focus on building his rhino horn and ivory trafficking business. Analysis of the broker’s WeChat account revealed he posted large quantities of both processed and raw rhino horn and ivory products for sale.

From 2016 onwards, law enforcement inspections in Nhi Khe increased in response to widespread public reports on the extent of illegal wildlife trade that was openly occurring in the village, including a Public Hearing convened by the Wildlife Justice Commission in November 2016 which presented evidence of the magnitude of criminality in Nhi Khe collected during investigations. The Vietnam Environmental Police followed up with multiple arrests and the country’s largest seizures of rhino horn, ivory, and pangolin scales made outside of a port in 2017 and 2018. These cases inevitably had a significant impact on the criminal fraternity in Vietnam, where it became apparent perhaps for the first time, that wildlife crime was being taken more seriously by the mandated law enforcement agencies. Subsequently, the trade became progressively covert and displaced to other locations in Vietnam. Business operations adapted and began to store products and facilitate meetings in other nearby locations such as Bac Ninh, Hai Duong, Vinh Phuc, Dong Ky and others. More recently, during 2020 and 2021, several traffickers have referred to Cau Loi and Dien Chau in Nghe An province in central Vietnam as new hotspot trade locations.

### Smuggling from Vietnam to China

Information published in Chinese court judgements of cases involving the smuggling, purchase, sale, or transportation of raw or processed rhino horn products corroborates many of the intelligence findings and seizure data that show the direction of the trade to China. There have been at least 210 such cases convicted in China between 2017 and 2021, of which the Wildlife Justice Commission conducted in-depth analysis on the 32 largest cases to identify the most prevalent enabling factors and modus operandi.

Analysis of these cases shows that rhino horn products are mostly smuggled into mainland China overland from Vietnam, or by air via transcontinental flights from Africa, often transiting through Hong Kong SAR. In cases where horns were smuggled from Vietnam, Chinese nationals had travelled to Vietnam to inspect, purchase, and smuggle products back to China, or they would contact Vietnamese traders via WeChat to arrange the deal and Vietnamese couriers would smuggle the products to Chinese border towns such as Dongxing. Most of the cases where horns were smuggled on passenger flights from Africa

involved Chinese nationals travelling from South Africa to China carrying rhino horns in their luggage. In 11 of the 32 cases analysed, Hong Kong SAR was used as a transit point for smuggling products into mainland China — twice in 2017, six times in 2018, and three times in 2019.

One case involved rhino horn products sent by airmail parcels from Europe directly to China. After several parcels were seized, the defendants started sending products to an associate in Lao PDR, who would organise the smuggling into China via bus drivers concealing products in hidden compartments in the bus. Later, the criminal network realised it would be cheaper to order rhino horn products from Japan instead of Europe but continued to use Lao PDR as a transit point.

Once the products enter China, they appear to mostly move between cities and provinces using delivery services, or the Chinese traders themselves would transport the products to meet with potential buyers. The cases show that WeChat continues to be the preferred communication platform to arrange the deals.

Smuggling of large shipments from Vietnam to China became increasingly difficult from 2017 onwards, likely due to China’s strengthened law enforcement focus on wildlife trafficking as it prepared for the introduction of a national ivory trade ban.24 Prior to 2017, couriers would take full responsibility if products were seized during transportation from Vietnam to China. But by May 2017 the 100% courier liability model had changed, with a 50% payment required upfront and any losses would be shared equally between the courier and the buyer.

Intelligence indicates that rhino horn carving is primarily done in China because the quality of the craftsmanship is considered to be superior to Vietnamese carvers. Therefore, the flow of products between Vietnam and China is likely to be two-way, with raw rhino horn moving into China for carving, carved products coming back to Vietnam (and retail markets in other countries) for sale, and then returning to China after purchase by end consumers.

### Other rhino horn markets

Wildlife Justice Commission intelligence indicates that some Chinese traders sell rhino horn products to buyers located elsewhere in Asia, including South Korea, Japan, and Taiwan. Rhino horn has also been observed openly displayed at markets in Myanmar, Thailand, Lao PDR, and Cambodia, some of which cater specifically to a Chinese clientele.25

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Wildlife Justice Commission investigators observed rhino horn for sale in Lao PDR at markets in Luang Prabang, Vientiane, and the Golden Triangle Special Economic Zone (SEZ). In 2016 it was found to be available in various forms, including carved products (libation cups, pendants, and sculptures), cut pieces, shavings, and powder. All locations appeared to be targeting Chinese clientele, and buyers were advised to simply wear or hand-carry their items back across the border to China. Although the open trade has declined since then, an individual with a Chinese name using a Laotian mobile service was found to be selling rhino horn products on Facebook in November 2020, and a rhino horn shipment seized in October 2022 in Singapore was found to be destined for Lao PDR. These instances could suggest the trade in Lao PDR may be continuing online or physically in a more covert manner.

The Wildlife Justice Commission has also collected intelligence on the smuggling of rhino horn overland from southern Vietnam to Cambodia. In May 2021, rhino horn was reported to be risky but profitable in Cambodia due to wealthy Cambodians seeking to buy whole horns. A Vietnamese trafficker engaged in this trade said that Cambodian and Chinese customers in Cambodia are prepared to pay much higher prices than Vietnamese buyers. He claimed to have developed a strategy to smuggle rhino horn through the border checkpoint in his car and would travel to meet customers so they could inspect products in person. In 2019, the Wildlife Justice Commission encountered retail traders selling carved rhino horn products at the Tuol Tompoung Market (Russian Market) in Phnom Penh, including libation cups and pendants. One trader claimed that government officials from both China and Cambodia would bring customers to her, for which she would pay them commission. Products were reportedly carved in Vietnam or China and then sent to Cambodia for sale. Investigators were also offered a back rhino horn from a person of interest connected to an ivory carving factory in Phnom Penh in 2019.


Case study: China’s largest seizure reveals extent of transnational organised crime in rhino horn trafficking

In January 2019, Xiamen Customs Anti-Smuggling Bureau (ASB) received intelligence of a large shipment of rhino horns and elephant ivory that would be smuggled into China through sea channels. The intelligence indicated the shipment would arrive in Fujian province and was suspected to be connected to Wang Yongming, a businessman from Zhejiang province who had recently returned from Mozambique.

Xiamen ASB began inspecting all incoming fishing boats and vessels in Fujian province in search of the shipment and monitored Wang’s accounts. In early February a large amount of funds was deposited into Wang’s account, indicating the shipment had been received, but its size and location was not known. The investigation found that once the rhino horn entered China, it changed hands and moved quickly in the trade networks. Investigators missed the opportunity to seize this shipment, but continued monitoring Wang in anticipation that another shipment would be organised.

A few weeks later in early March 2019, investigators received intelligence that Wang had dispatched a deep-sea fishing vessel (1,600 tonnage, 70 metres long) from Zhejiang province, which was headed to Mozambique. The vessel was flagged to Belize and the crew members were mostly from Myanmar. The vessel was later detected leaving port in Mozambique on 15 May, but shortly afterwards turned off its AIS navigation system and communications and became a “ghost ship” at sea.

It was now almost impossible for investigators to track the vessel. Using big data analysis, satellite images and sporadic information from other ships moving through the monitored sea area, investigators estimated the shipping route and speed, calculating that it may enter the South China Sea from the Malacca Strait in mid-June.

On 17 June 2019, the vessel’s signal appeared in the waters around the border of Fujian and Guangdong province, and the arrest operation was quickly planned. Smuggling ships are often known to stop on the high seas just outside of China Customs law enforcement jurisdiction and tranship their contraband to small boats which then wait for the opportunity to smuggle it into mainland China. Investigators also feared the vessel could flee to the waters of the Taiwan Strait to avoid arrest.

The arrest operation was executed later that same night, involving 120 ASB officers, 288 maritime police officers and soldiers, eight vessels and 18 action teams distributed in the border waters of Fujian and Guangdong, as well as several locations on land at Fuzhou, Quanzhou, Wenzhou, and Dalian.

When the ASB officers boarded the vessel, the crew were reportedly “confident” that it was just a routine inspection and did not alert the smuggling...
bosses to the incident. On searching the vessel, officers found it to be almost empty with no evidence of any smuggled goods. However, Xiamen Customs Operation Command was certain of the intelligence assessment and insisted the search continue. Officers eventually found 14 nylon bags hidden in a special compartment next to the engine, containing 250 kg of rhino horn. The seizure included a total of 110 whole horns and 35 pieces, of which 70 horns contained microchips, indicating they originated from legal stockpiles. This case set a record for the number of rhino horns seized by China Customs in recent years. At the same time, five suspects were arrested in the coordinated operation on land, including Wang Yongming in Wenzhou, and more than 30 pieces of ivory, one leopard skin, and ivory necklaces were seized.

This case is significant not only for its size, but also for its sophisticated modus operandi previously unseen for wildlife crime, but which would be more typically associated with drug trafficking. Whereas wildlife smuggling by sea typically involves concealing products in shipping containers for transportation on commercial container ships, this case deployed a fishing vessel for the sole purpose of transcontinental smuggling from Africa to China. The vessel travelled a direct route from Mozambique to China with no transit points and carried no other goods. With the total return distance of approximately 20,000 nautical miles, the cost of a single smuggling trip would have amounted to tens of thousands of dollars in fuel alone.

The investigation found the criminal network to be well-organised and highly professional, with clearly defined roles for overseas procurement of products, receiving and loading products in Africa, maritime transportation, smuggling into China, and rapid distribution of products to buyers in-country. Each smuggling role was distinct and independent of the others, but closely linked in the network. Wang Yongming was identified as the ultimate owner and organiser of the shipment and also owned a shell trading company which was used to transfer funds for payments in Africa. All network members were said to be “smuggling experts” with previous criminal records. Local police in Mozambique were bribed to help transport the rhino horns for loading onto the fishing vessel, while one of the shareholders of the vessel was identified as the chairman of the Fujian Chamber of Commerce of Portuguese-Speaking Countries. These findings show the complex and organised structure of the criminal network, which would have taken many years to establish and likely smuggled many successful ivory and rhino horn shipments before it was detected and dismantled in June 2019.

The rhino horns were found in 14 nylon bags hidden in a special compartment next to the ship’s engine.

Source: https://www.sohu.com/a/467797582_404517

Of the 110 whole horns in the shipment, 70 were found to be implanted with microchips, identifying them as having originated from legal stockpiles as opposed to poaching.

Source: https://www.sohu.com/a/467797582_404517

The seizure included 250 kg of rhino horn from the fishing vessel, as well as ivory and a leopard skin from locations on land.

Source: https://www.sohu.com/a/467797582_404517

Image 7: Image of whole horns in front and further back those with flat bases and registration markings, indicating they were harvested from dehorning.

Source: https://www.sohu.com/a/467797582_404517

Image 8: The rhino horns were found in 14 nylon bags hidden in a special compartment next to the ship’s engine.

Source: https://www.sohu.com/a/467797582_404517

Image 9: Of the 110 whole horns in the shipment, 70 were found to be implanted with microchips, identifying them as having originated from legal stockpiles as opposed to poaching.

Source: https://www.sohu.com/a/467797582_404517
Law enforcement and legal experts fighting transnational organised wildlife crime.