

Explaining Environmental and Organized Crime Convergence Through a Systematic Analysis of the Operational Dynamics of Transnational Criminal Groups

A SUMMARY REPORT*

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Earth
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International



Executive Summary

Environmental crime is one of the world's most destructive, fast-growing, and lucrative transnational organized crimes. These crimes encompass a broad spectrum of activities that include illegal logging, fishing, wildlife trafficking, and dumping of hazardous waste. With an annual increase of 5-7%, which was up to three times the growth rate of the global economy, environmental crime now earns between \$US 110 and 281 billion each year (FATF 2021). Transnational environmental crime makes up nearly two-thirds of the world's illicit crime finance (RHIPTO et al 2018).

What fuels this astonishing growth? **This report greatly advances the recently emerging research and dialogue on environmental crime by shedding light on its key dimensions:** the characteristics of the actors involved; the well-connected, highly sophisticated syndicates they form; and the convergence of this crime with other serious transnational crimes, such as drug trafficking, human smuggling, money laundering, and corruption. Despite these crimes' devastating impacts on the environment and socioeconomic stability, they have long been relegated to low-priority management among state officials and law enforcement agencies across the globe.

Drawing on Earth League International's (ELI's) *years of fieldwork*, which has allowed for the collection of *first-hand information* from the Americas, Europe, Africa, and Asia during its investigations, **this report develops and presents ELI's path-breaking convergence paradigm to show exactly how convergence has integrated wildlife and environmental crime into the heart of global economic and political structures.** Over two dozen case studies emerged from ELI's work as primary sources of data. This report highlights five of those cases that together illustrate the convergence of environmental and wildlife crime with other serious crimes and transnational crime networks. Each case demonstrates how environmental crime networks quickly adapt, diversify, and grow in ways that maximize their power and profit. **ELI has defined, instituted, and analyzed a 4-Type Convergence Classification:**

ELI's Environmental Crime Convergence Paradigm

- 1. Multiple Species Convergence** refers to the trafficking of multiple species at the same time (e.g. rhino horn, ivory, pangolin, jaguar, shark fin, seafood).
- 2. Multiple Environmental Crime Convergence** involves the same traffickers or networks engaging in wildlife crime, plus the trafficking of other natural resources, such as illegal logging, illegal fishing, and illegal mining.
- 3. Serious Crime Convergence** refers to the same traffickers or networks engaging in other serious crimes, such as money laundering, human smuggling, and drug trafficking.
- 4. Transnational Networks Convergence** describes the overlap of transnational organized criminal networks and their activities. Network convergence is multileveled, as these criminal networks have intentionally created a variety of regional, interregional, and transnational points of connection to strengthen their criminal activities.

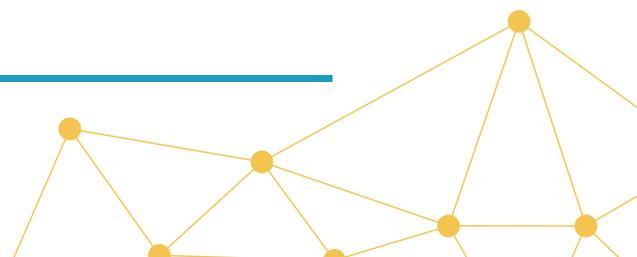
This paradigm requires a holistic re-evaluation of transnational organized crime and of the policies to combat it. In particular, the convergence of criminality upends established views of the structure of organized crime, requiring a new understanding of the increasingly flexible, adaptive operations of criminal networks at all levels. **This new perspective also exposes the multiple gaps in the chain of enforcement, starting with how intelligence is gathered in areas of high criminality to the ways in which environmental laws are adjudicated in court.** Based on these findings, the report proposes a set of practical and effective responses. Given the longstanding challenges of prosecuting environmental crimes, particularly since such crimes are almost always carried out alongside other serious crimes, this report recommends that prosecutorial efforts be shifted to the more serious crimes converging with environmental crimes, which will enable prosecution and punishment of criminal leaders. **Such an approach must be supported by stepped-up investigation, intelligence gathering, and systematic analysis of the data** necessary for the identification and disruption of criminal networks. To institutionalize this approach, it is critical that concerted and joint efforts be made by multiple international actors to bring the issue of environmental crime and its convergence with other serious crimes to the fore of the global dialogue and policy.

Environmental Crime and Convergence

Environmental crime is currently recognized as one of the most lucrative and fastest-growing areas of transnational organized crime (TOC) (OECD 2016). These crimes are broadly defined as illegal acts which directly harm the environment, and include such crimes as wildlife trafficking, illegal logging, and illegal fishing. **Despite being widely recognized as one of the largest TOC industries worldwide, environmental crime has historically been treated as an issue of environmental management and is often seen as low priority for law enforcement and government authorities.** However, in recent years, environmental crimes have garnered increased attention among researchers, government authorities, law enforcement authorities, and the media, and are recognized as a critical and escalating threat to national and human security (Wittig 2017).

It is a well-established fact that environmental crimes converge with other forms of serious crimes. Nevertheless, the discourse on environmental crime convergence with other forms of serious crimes has only emerged recently among advocacy groups and in scholarly circles alike. With the involvement of more serious transnational organized criminal groups in environmental crimes, it is apparent that environmental crime convergence with other forms of serious transnational organized crimes is inevitable. Convergence has been recognized as a critical feature of TOC groups, which have expanded their criminal activities due to globalization, transnational commerce systems, advancements in technology, and the development of online money transfer systems (Interpol 2016). **TOCs have not only become increasingly interconnected, but they are increasingly diversifying their criminal activities,** and reaping benefits by engaging in such serious transnational criminal activities as drug smuggling, human trafficking, firearms trafficking, money laundering, and notably, environmental crime (Van Uhm and Nijman 2020; Moreto and Van Uhm 2021). Yet, there remains a persistent and extensive gap regarding environmental crime and its convergence with other serious crimes (Nellemann et al, 2018).

At present, knowledge on the role of the convergence of various serious crimes within environmental crime is relatively limited, and there is a significant lack of empirical evidence regarding the scope and degree to which these crimes align with other organized criminal activities (Wyatt et al, 2020). Most wildlife and environmental conservation approaches focus almost exclusively on local criminals and poachers, anti-poaching activities, and awareness campaigns, which are ultimately undermined by the impacts of high-level environmental criminals and their international trafficking networks. Furthermore, governmental and law enforcement agencies face multiple barriers when addressing environmental crime, among which are: (a) the lack of understanding of environmental crime convergence with other serious crimes; and (b) their engagement in an asymmetrical war against international criminal syndicates with difficult-to-match resources. Such approaches and gaps in inter-agency collaboration not only hinder the efforts to coordinate long-term intelligence gathering across various international supply chains but also render environmental criminal networks invisible and impenetrable, complicating the existing efforts to combat these serious transnational crimes.



Environmental Crime Convergence Typologies

Given the inherent data limitations, scholars have made significant strides to extrapolate convergence typologies in the past. **Literature in this direction is relatively new and primarily anecdotal, and studies have only begun to emerge in the past several years**, shedding light on the phenomenon of the convergence of environmental crimes with other forms of serious crimes. With the aim of situating ELI's convergence typologies (shown in Figure 1) within the broader discourses of convergence in academic literature, this report will briefly discuss the contributions made to the convergence literature (as they pertain to environmental crimes) by scholars in the past. This review will focus on the methods used by the researchers to devise such typologies.

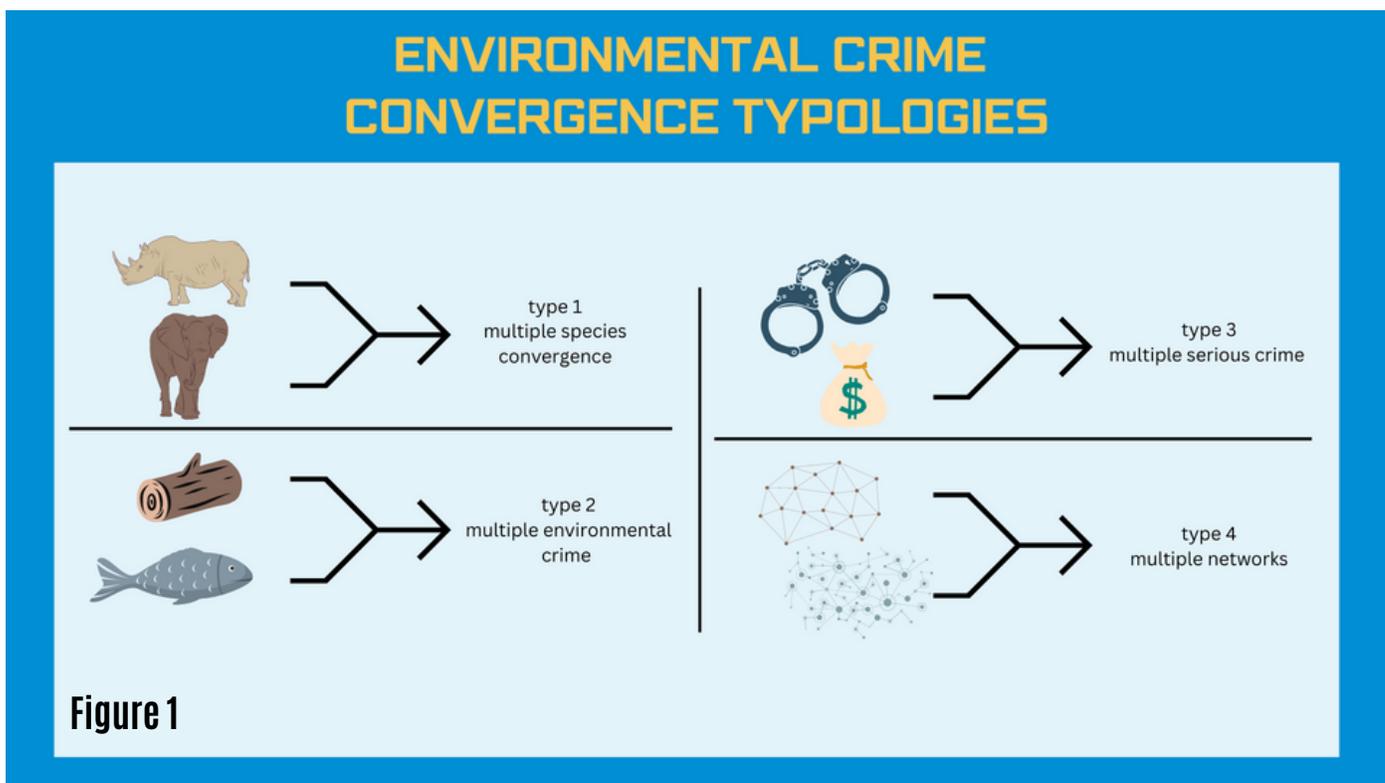


Figure 1

A systematic review of the literature on this topic revealed a limited number of studies that generated convergence typologies related to environmental crimes. This body of empirical literature focused on using various methods and data sources to extract and define these typologies. **An overwhelming majority of these studies (70%) relied on secondary data, literature review, analysis, and review of reports generated from governments and NGOs, as well as other grey literature.** A systematic analysis of the typologies deriving from these studies revealed that these typologies can be easily and constructively classified within the broader umbrella of the environmental crime convergence typologies derived by ELI. Figure 2 shows these classifications.

CONVERGENCE TYPOLOGIES DERIVED FROM EMPIRICAL LITERATURE AND THEIR ALIGNMENT WITH THOSE DERIVED BY ELI

Figure 2



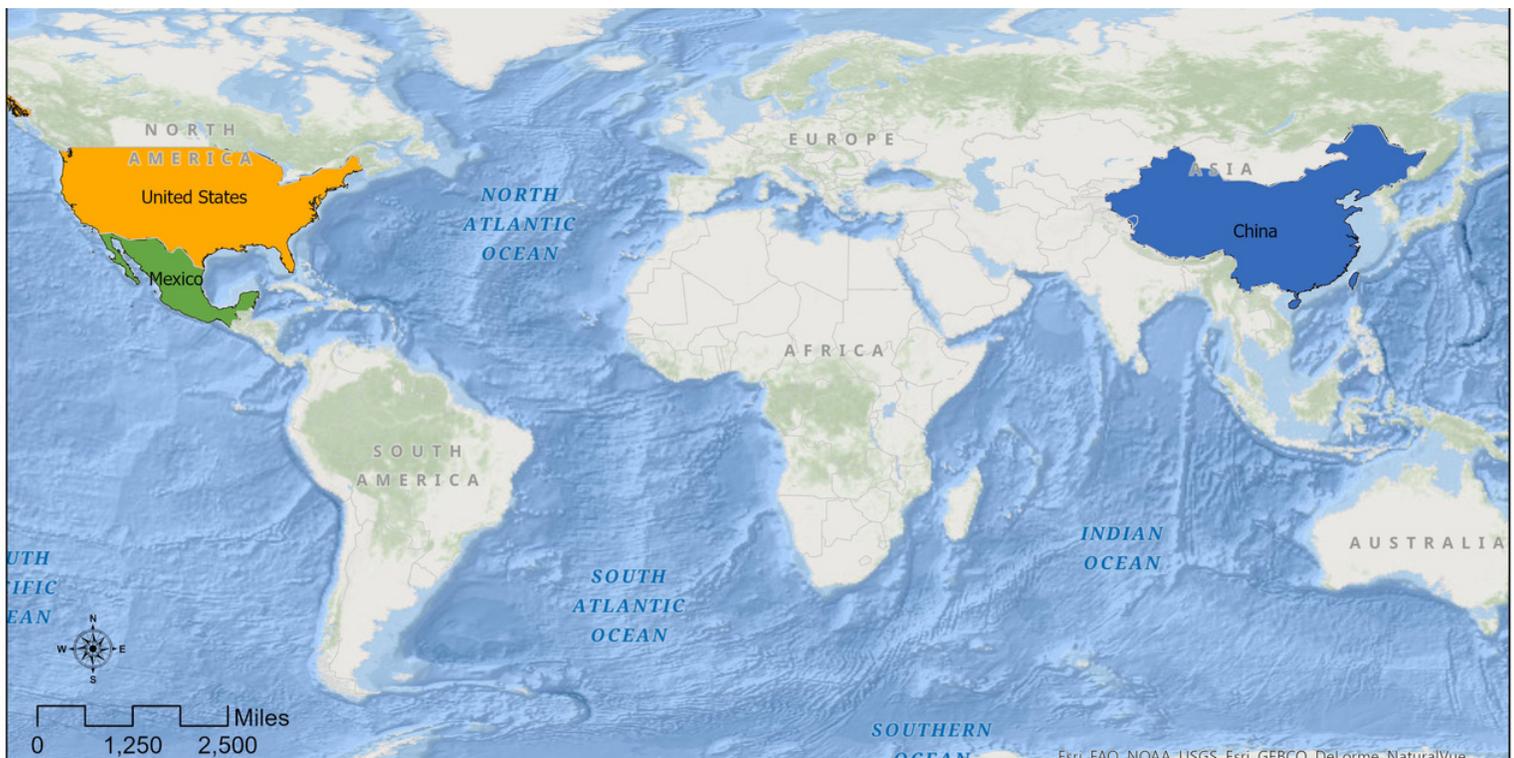
CASE STUDIES OF ENVIRONMENTAL CRIME CONVERGENCE AND CRIMINAL NETWORKS

Case Study 1: CRIMINAL NETWORK M2



ELI's Executive Director, Andrea Crosta, photographs a totoaba swim bladder confiscated in Hong Kong while in transit from Mexico to China

The criminal network M2 was identified as part of ELI's [Operation Fake Gold](#), the most important intelligence-gathering operation on the trafficking of totoaba maw (swim bladder) and seafood in Mexico. **M2 has successfully smuggled totoaba maws for over 12 years**, primarily operating between Mexico, China, and the U.S. Although M2 is heavily involved in wildlife crimes, one of its other main criminal activities is human smuggling. **The ring smuggles Chinese immigrants to the U.S. for 40,000-50,000 USD per person**, charging additional fees if these individuals need temporary or permanent residential cards. According to ELI's sources, M2 has an extremely high success rate of 95% for its human smuggling activities. **M2 is also involved in the illegal drug business with members of the network overseeing drug houses in the U.S.** M2 forces the Chinese immigrants they previously smuggled to illegally grow marijuana. **For all of its criminal activities, M2 works in collusion with the Mexican cartels in some capacity.**



NETWORK M2

Profile

M2 is composed of Chinese nationals residing both in China and Mexico.

M2 is based in Baja California, where they serve as a key supplier of wildlife products. It collaborates with several criminal networks.

M2 is also involved in human smuggling, immigration document counterfeiting, and money laundering.



Mexico, China, & the U.S.

Convergence Types

Type 1: Multiple Species

Totoaba, abalone, shark fin, sea cucumber, & seahorse



Type 3: Multiple Serious Crime

Money laundering, drug trafficking, corruption, & human smuggling

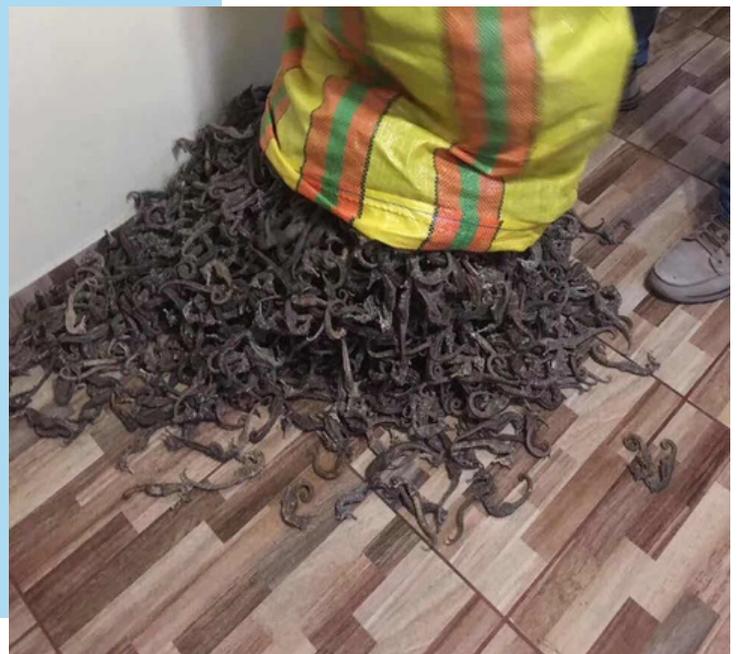


Type 4: Trasnational Networks

Collaboration with the Fujian mafia, Mexican organized crime groups, & drug cartels



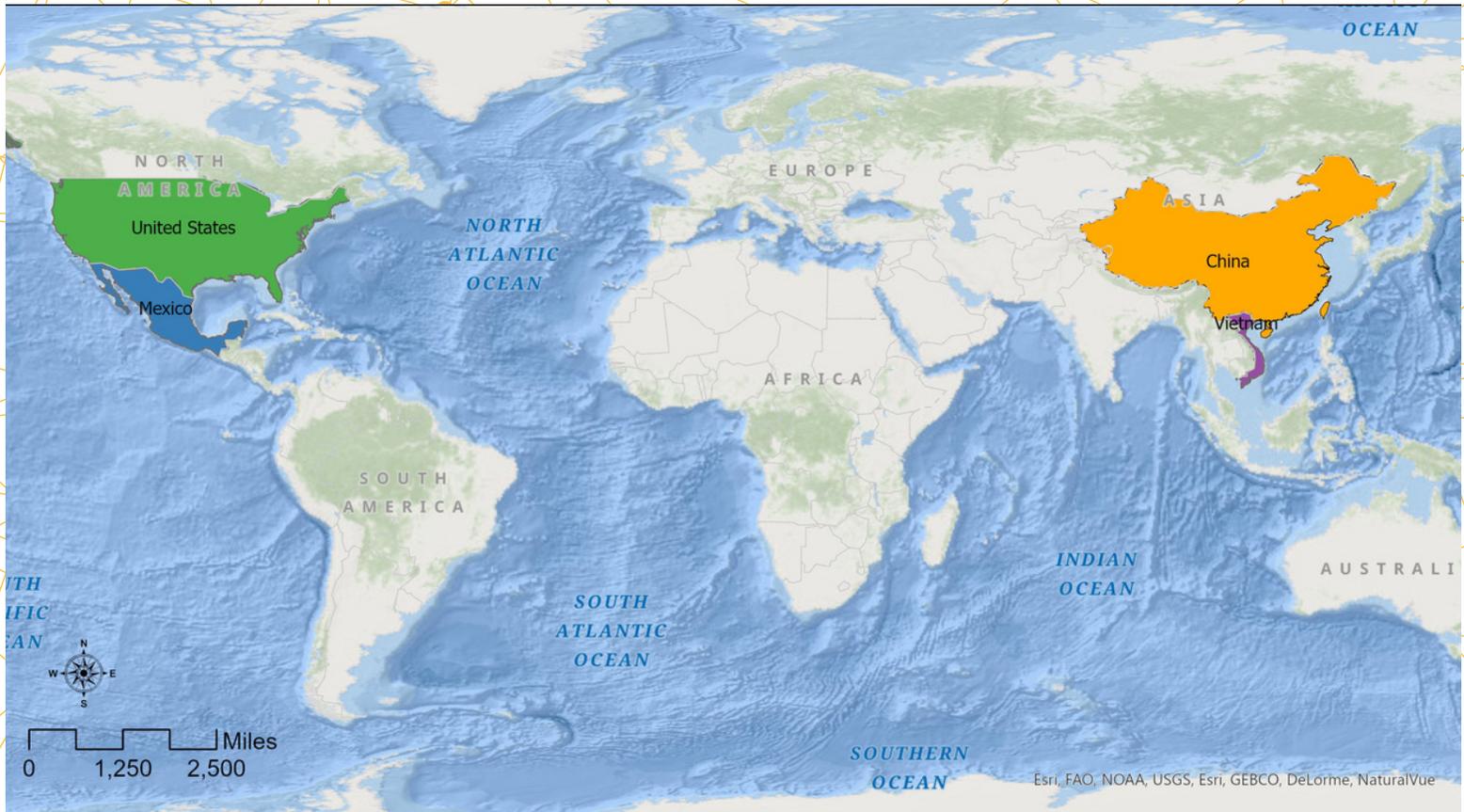
Image (right) Photographic evidence gathered by ELI's investigative team of dried seahorses



Case Study 2:

CRIMINAL NETWORK M3

Since 2017, ELI has been gathering information on the activities of the Chinese community members gravitating around certain restaurants and other seafood providers in Central Mexico. This led to the identification of **M3, one of the most influential networks in the country and a major player in the smuggling of totoaba maws** from Mexico to Asia. In addition to totoaba, **M3 also produces and sells tiger bone wine**, a traditional Chinese medicine remedy. ELI discovered that in **the past three years, several hundred kilos of bones from live tigers were used by M3 to manufacture the wine**. Many of the tigers are bred by the Sinaloa cartel in Mexico. **M3 also assists the cartels in acquiring and transporting illegal drugs**. A source close to the network confirmed that M3's members support the cartels in the distribution of drugs to Chinese groups residing in the U.S. **M3 also achieves its criminal aims through corruption, as it bribes Customs officers and government officials to obtain export permits for its illicit goods and to avoid checks at airports.**



NETWORK M3

Profile

M3 is a Chinese criminal network run by Cantonese nationals based in Central Mexico.

M3 is a key player in the smuggling of totoaba maws from Mexico to Asia.

M3 is involved in money laundering, human smuggling, drug trafficking, and corruption.

M3 collaborates extensively with Mexican cartels, corrupt officials, and the Fujian mafia.

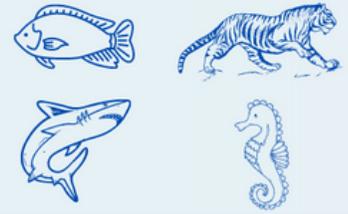


Mexico, China, Vietnam, & the U.S.

Convergence Types

Type 1: Multiple Species

Totoaba, shark fin, sea cucumber, seahorse, & tiger bone



Type 2: Multiple Environmental Crime

Illegal logging



Type 3: Multiple Serious Crime

Money laundering, drug trafficking, human smuggling, & corruption



Type 4: Transnational Networks

Collaboration with cartels, Fujian mafia, & other criminal networks

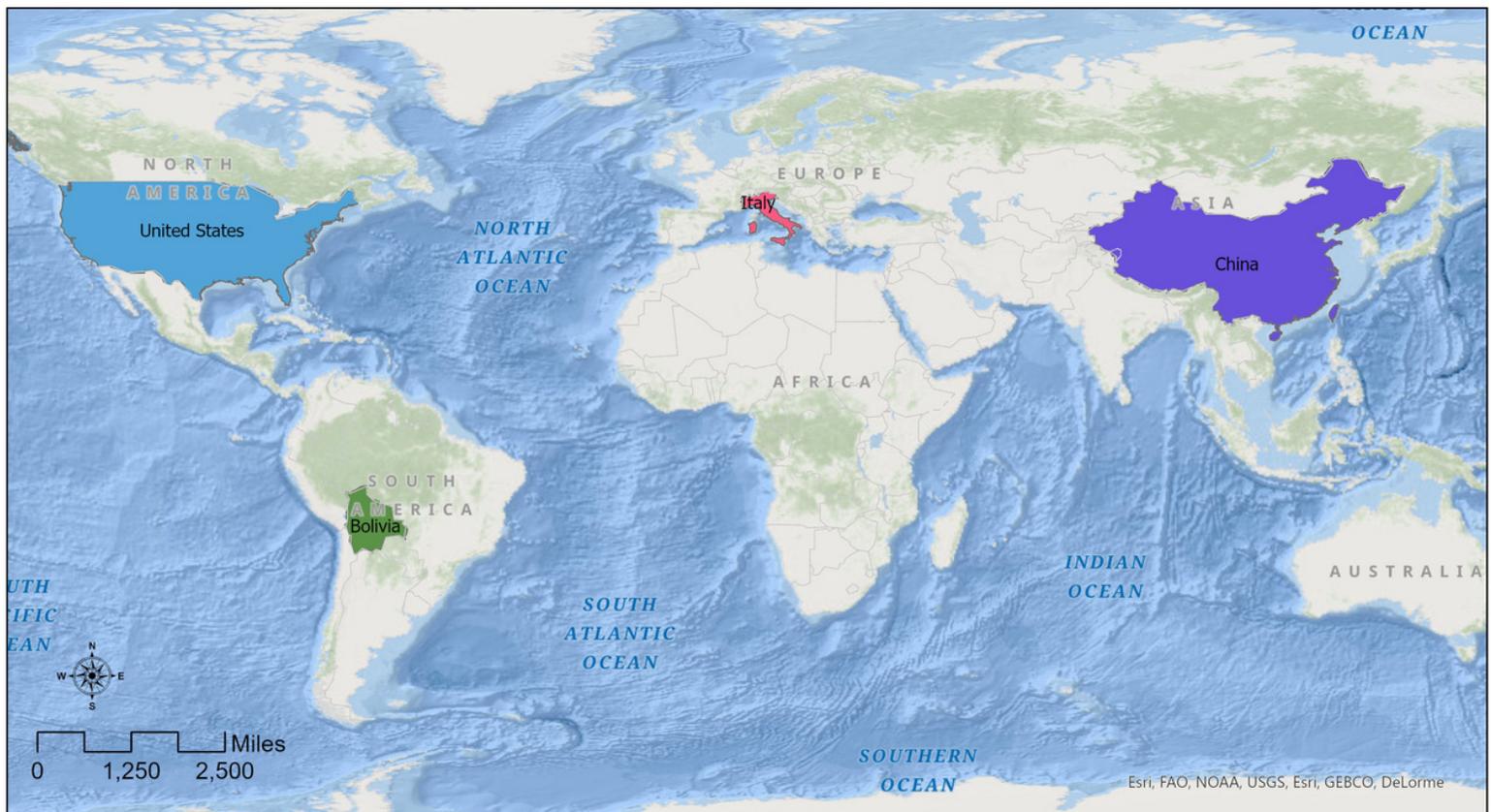


Photographic evidence gathered by ELI's investigative team of the trafficking of totoaba maws by M3

Case Study 3:

CRIMINAL NETWORK SA4

SA4 was initially identified in 2018 as part of ELI's [Operation Jaguar](#) (performed in collaboration with IUCN Netherlands and IFAW, and funded by the Dutch Postcode Lottery), in which ELI's team built a comprehensive understanding of the illegal jaguar trade in Latin America. **SA4 is a Fujian/Putian criminal network based in Bolivia and plays an underlying role in the illegal trade of jaguar-related products**, including fangs, jaguar bone wine, and skins. It was also discovered that SA4 engages in illegal gold mining. **SA4 conducts its illegal mining activities in the Amazonian regions of Bolivia.** Often the network collaborates with Chinese state-owned companies that obtain mining permits from corrupt government officials in Bolivia. In 2021, **ELI discovered that SA4 is associated with a Chinese cocaine trafficking group. Chinese members of this group were arrested** at the airport while trying to ship a package containing drugs to the UK. However, **SA4 bribed authorities to allow for their release, paying 100,000 USD per person.** ELI's intelligence revealed that SA4 is also heavily involved in money laundering with the network, **successfully laundering 3 million USD in one month.** The average profit for the network is 8-9% of the total amount laundered.



NETWORK SA4

Profile

SA4 is a powerful Fujian/Putian criminal network based in Bolivia.

SA4 plays a critical role in the illegal wildlife trade in this region, primarily in the trafficking of jaguar-related products.

SA4 is also involved in a variety of criminal activities, including money laundering and illegal mining. It also collaborates with other criminal networks.



**Bolivia, China,
the U.S., & Italy**

Convergence Types

Type 1: Multiple Species

Jaguar & crocodile



Type 2: Multiple Environmental Crime

Illegal logging & Illegal mining



Type 3: Multiple Serious Crime

Money laundering, drug trafficking, corruption (customs and police officials), & illegal casino business



Type 4: Transnational Networks

Collaboration with various Chinese traders around the world and networks in Italy

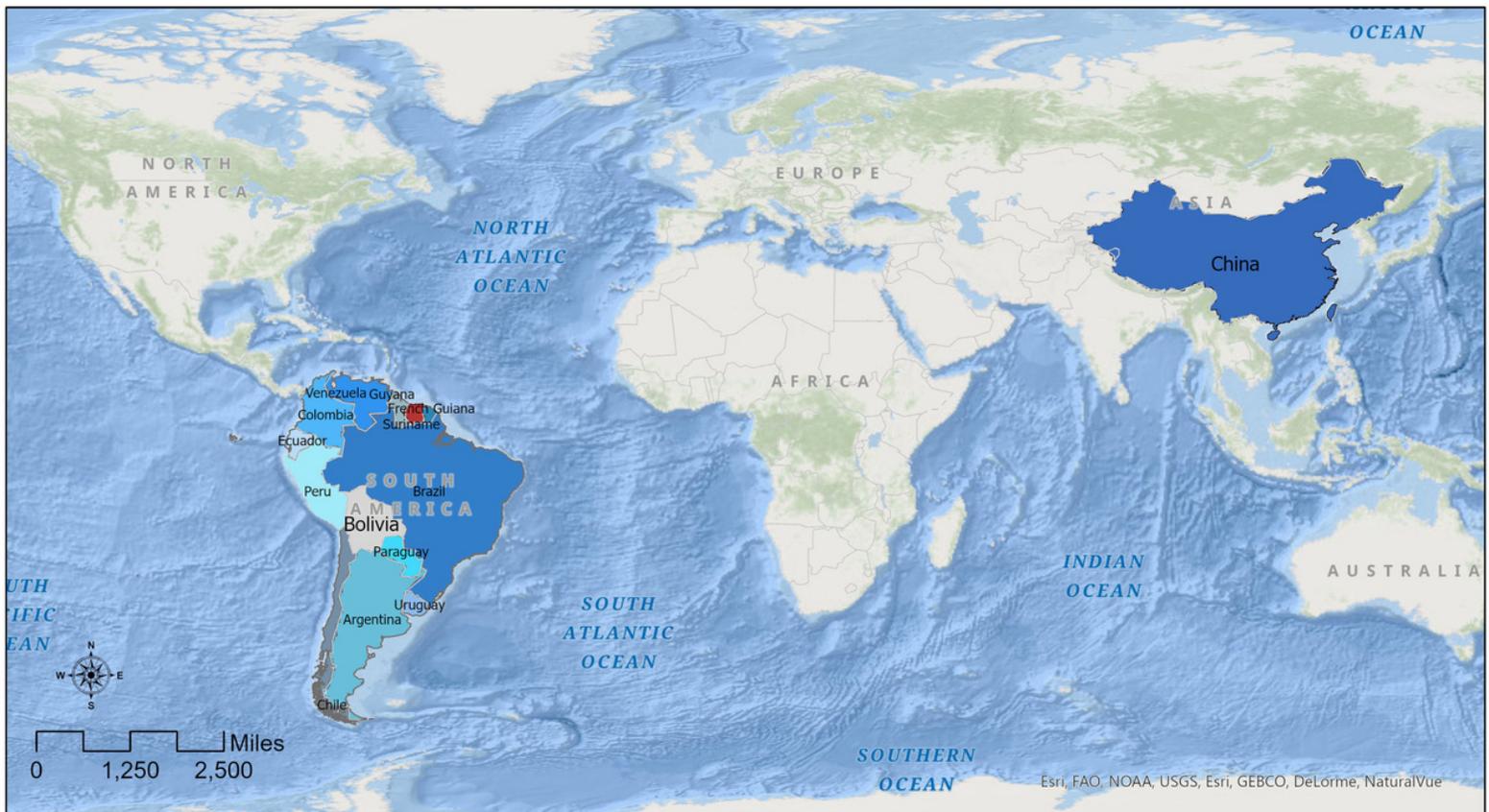


Photographic evidence gathered by ELI's investigative team of a jaguar pelt (left) and jaguar fangs (right)

Case Study 4:

CRIMINAL NETWORK SA1

Over the course of ELI's investigation, it was discovered that **SA1 is a multi-commodity criminal network composed of Chinese nationals with its most important base in Suriname.** SA1 plays a major role in jaguar trafficking across South America, smuggling jaguar products to Guyana, Suriname, and French Guiana. According to sources, **SA1 is also involved in illegal logging and illegal gold mining with the Chinese mafia, Venezuelan mafia, and Brazilian criminal groups.** SA1 smuggles illegal products across borders easily due to its **established links with the police and Surinamese Customs,** whom the network bribes for assistance or to simply disregard their illicit activities. Evidence reveals that **SA1 is one of the largest shark fin trafficking networks in the region, with the capacity to provide 1-2 tons of shark fins per month.** SA1 is also an Important money launderer in the region **successfully laundering half a million USD in one day.** According to sources close to the network, SA1 can smuggle 8 million USD in cash by boat from Colombia to Suriname.





Photographic evidence gathered by ELI's investigative team of shark fins (left) and jaguar fangs (right)

NETWORK SA1

Profile

SA1 is a multi-commodity criminal network composed of Chinese nationals based in Suriname.

SA1 is involved in wildlife crimes, particularly in the trafficking of jaguar parts and shark fin.

SA1 also engages in other serious crimes, such as money laundering and human smuggling. It collaborates with other criminal networks.



Suriname, China, & numerous South American countries

Convergence Types

Type 1: Multiple Species

Jaguar, shark fin, & illegal seafood



Type 2: Multiple Environmental Crime

Illegal logging & Illegal mining



Type 3: Multiple Serious Crime

Money laundering, drug trafficking, human smuggling, & corruption



Type 4: Transnational Networks

Collaboration with drug cartels, mafia, terrorist groups, & other criminal networks



Case Study 5:

NETWORK SA8

SA8 is a multi-commodities and multi-crimes criminal network based in Peru, operating transnationally from South America to Asia. **ELI discovered that SA8 is a very successful jaguar parts trafficking network, serving as one of the largest sources of jaguar fangs in Latin America.** According to sources, the network partners with another criminal group operating in the region, which provide SA8 with fangs by sourcing directly from local communities that live in remote areas. SA8 also plays an influential role in the trafficking of shark fins. The criminal network can ship at least one 40 ft long shipping container to Asia each month. According to biologists, this results in the **fishing and trafficking of up to 490,000 sharks/per year.** **SA8 is involved in human smuggling,** providing authentic Ecuadorian passports, complete with a full name, to Chinese businessmen and officials who are on the run in Peru and South America. Furthermore, ELI's intelligence revealed that **SA8 can launder up to USD 1 million per day. In 2020, SA8 allegedly laundered over 78 million USD in Peru.** ELI's investigations also revealed that SA8 has close relationships with corrupt officials in one of the foreign embassies in Peru, who facilitate the network's wildlife crimes.



NETWORK SA8

Profile

SA8 is composed of members originating from both China and South America.

It is based in Peru and operates transnationally from South America to Asia.

SA8 is a key player in wildlife and seafood trafficking in the region.

SA8 is involved in other crimes such as money laundering, corruption, and passport counterfeiting.



Peru, China, various South American & Asian countries

Convergence Types

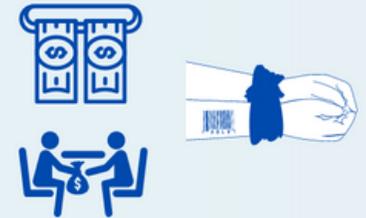
Type 1: Multiple Species

Jaguar, shark fin, seahorse, live turtle, & rhino horn



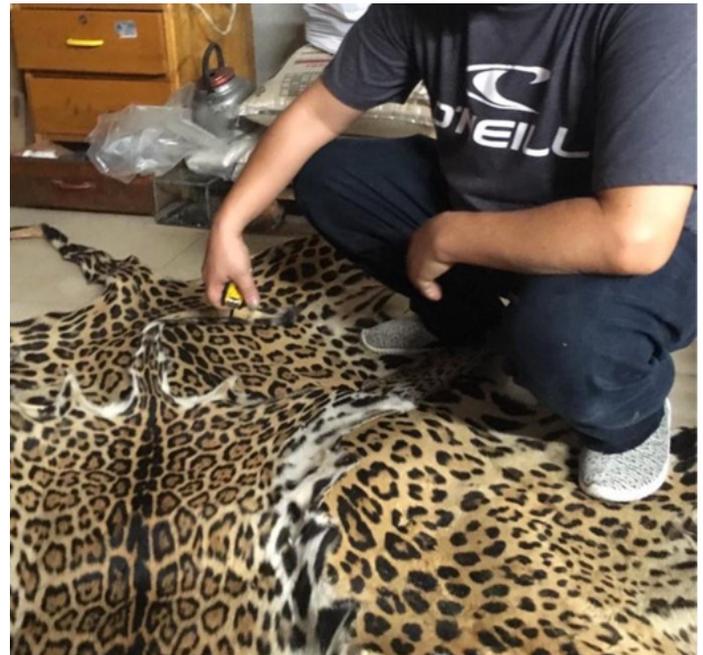
Type 3: Multiple Serious Crime

Money laundering, human smuggling, & corruption



Type 4: Transnational Networks

Collaboration with other criminal networks



Photographic evidence gathered by ELI's investigative team of the trafficking of shark fin and jaguar skin.

Conclusion and Recommendations

Where do we go from here?

This report breaks through long-established frameworks that are no longer capable of grasping and responding to the nature and rise of environmental crime. By exposing the actors and interactions that fuel these crimes, the report provides an immediately applicable and replicable model for tackling their sources.

In particular, we recommend greater training for police on the ground to detect practices of organized crime, map out local networks, and identify hotspots of convergence. Amid the lack of training, prioritization, and material support for law enforcement authorities, environmental criminality has spread unencumbered. **Second, criminal justice officials must make convergence integral to criminal investigations.** As documented by this report, environmental crime is rarely committed in isolation and involves at least one type of convergence with other serious crimes. **A focus on convergence widens the opportunities to detect and capture criminal leaders.** Environmental crimes are extremely difficult to prosecute, and among the small minority that are, sanctions are rarely strong enough to be deterrents. But, as in the case of Al Capone, evidence of other crimes – from money laundering to assassination – are more promising ways to catch them. Activists in Peru, for example, argue that most illegal gold mining syndicates can be most easily prosecuted for forced labor crimes.

Such proactive efforts to broaden systematic investigations and intelligence analysis will increase the likelihood of identifying and disrupting criminal networks. Such an approach will also bring about diffusion of benefits to regional and global security efforts. For example, the increasing prioritization of environmental crime in the US National Security Strategy helped spur actions, such as the US military's Operation Southern Cross deployment and the 2021 Tradewinds Operation, which addressed the illegal supply lines in the Caribbean Basin proliferated by convergence, such as the transport of cocaine in ships that have long engaged in IUU fishing. This report supports international organizations' current attempts at developing a draft Protocol under UNTOC that proposes to criminalize the intentional illicit trafficking of wild fauna and flora specimens. **Specifically, this report provides support for this reform, which should (a) incorporate provisions on the convergence of wildlife crime and other serious crimes; (b) create the framework for mutual legal cooperation between international partners; and (c) offer definitional precision to key legal terms such as “trafficking”, “wildlife organized crime”, and “convergence.”** This approach also draws on the exponentially increasing potential of data mining and sharing, which also serve as one of the quickest and most effective ways to reverse fragmentation among national and international enforcement agencies.

Together, these approaches add up to a powerful and urgently needed roadmap for enforcement and policy against the devastation of environmental crimes not only on the environment but also on the political and socio-economic future of countries around the world.

Download the full report here:

<https://earthleagueinternational.org/crime-convergence-report/>

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