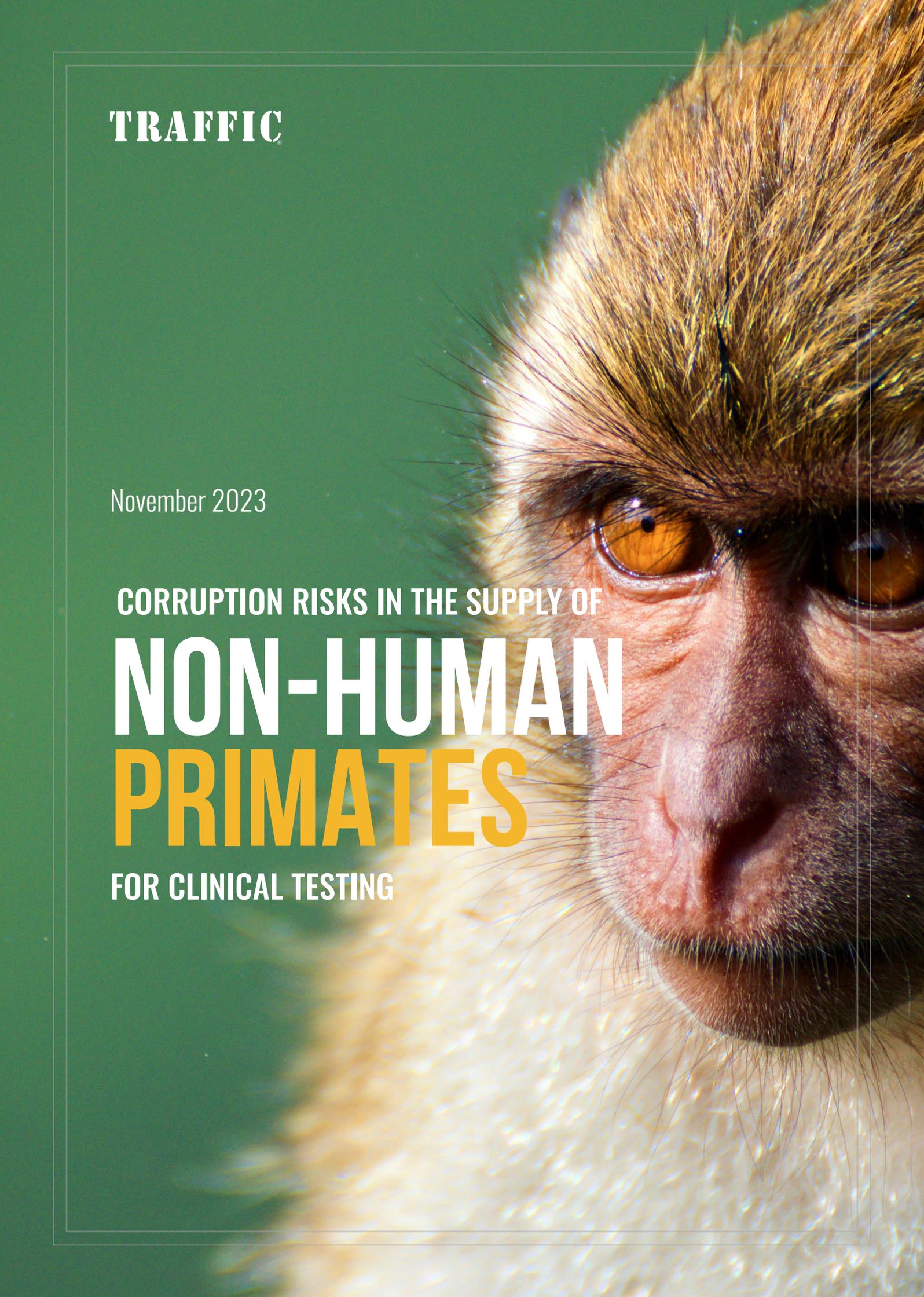


TRAFFIC

November 2023

CORRUPTION RISKS IN THE SUPPLY OF
NON-HUMAN
PRIMATES

FOR CLINICAL TESTING



TRAFFIC REPORT

ABOUT US

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USAID
FROM THE AMERICAN PEOPLE

EXECUTIVE SUMMARY

Non-human primates, particularly long-tailed macaques (*Macaca fascicularis*), represent the major nonhuman primate resource for biomedical research¹ that develops new pharmaceuticals for human use. The increase in the production of biotherapeutics, drug therapy products where the active substance is extracted or produced from a biological source², HIV/AIDS research³, and, most recently, research into COVID-19 treatments has led to an increased global demand for non-human primates in clinical testing.^{4,5}

Long-tailed macaques *Macaca fascicularis* are the most highly traded species of primate in the world. The International Union for Conservation of Nature (IUCN) Red List classified long-tailed macaques as Endangered (EN) in 2022⁶. To prevent overexploitation, permits are required for the international trade of long-tailed macaques due to their listing in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Yet, despite these protections, the CITES permit-based system has been targeted by corrupt actors numerous times⁷. At least part of the motivation for the illegal trade is assessed to be driven by the high value of these animals; the international trade in long-tailed macaques alone was estimated to be worth approximately USD1.25 billion between 2010 and 2019⁸.

In November 2022, eight people were charged by US federal prosecutors for their alleged involvement in international primate laundering. The US Indictment⁹ alleges that the defendants fraudulently and knowingly conspired to illegally export macaques to the United States by submitting documentation falsely declaring that the primates had been born and raised in captivity rather than taken from wild populations.

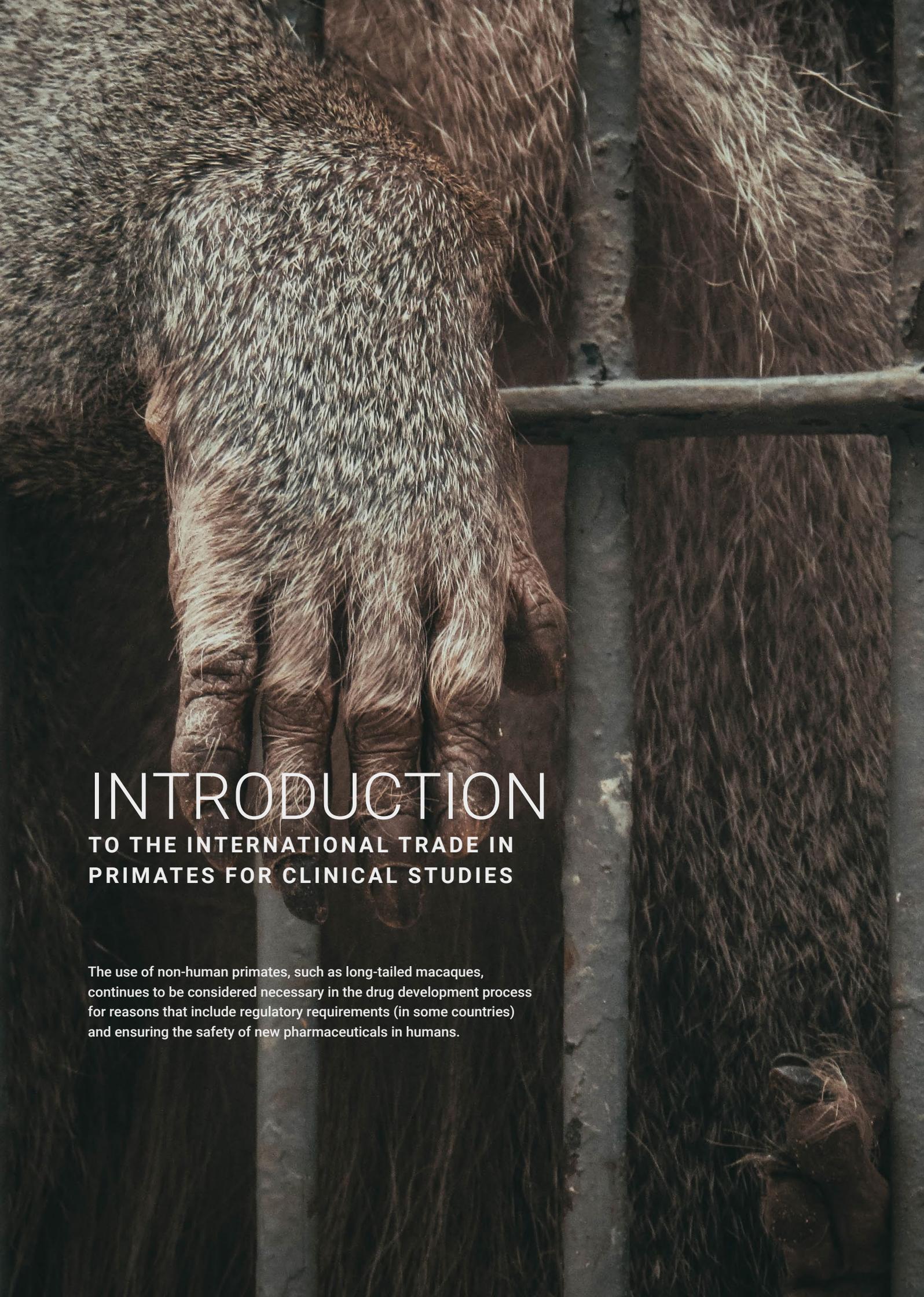
Two individuals named in the indictment referring to the alleged crimes were senior staff within the Ministry of Agriculture, Forestry and Fisheries (MAFF) of the Government of Cambodia; one of the two was reported to be the Chairman of the Cambodian CITES Scientific Authority.

The remaining six people named held roles within or were employed by either 'Vanny Bio-Research Centre' based in Hong Kong Special Administrative Region, later renamed 'Vanny Science Development Ltd', and the subsidiary 'Vanny Bio-Research Cambodia (VBRC)'.

The indictment alleges that between March and October 2020, the VBRC allegedly paid approximately USD2,515,000 for approximately 14,300 wild-caught long-tailed macaques. The indictment covers the import of roughly 3,000 animals into the US. The location or status of the remaining 11,000 animals is unknown.

These alleged crimes bring three serious risks:

1. Illegally captured and undeclared wild-caught animals could compromise the validity of clinical testing regimes as the animals are of unknown disease status. The animals may be sick (and therefore not react or behave normally) due to immunosuppression from the stress of the capture and transport process and exposure to novel viral, bacterial, and parasitic agents, which could undermine vaccine trials and compromise the research programs.
2. Due to the close genetic relationship between non-human primates and humans, zoonotic pathogens are easily exchanged, which can lead to severe and potentially fatal infections in humans.¹⁰ Wild-caught animals being fraudulently declared captive-bred represent a particular risk as protective measures may not be considered necessary when importing the animals as they should have been born and raised in a monitored and controlled environment. It can be hard to detect certain infections, spreading through a captive population following the introduction of illegally laundered wild-caught animals.
3. Long-tailed macaques are an endangered species. For many years now, very large numbers of long-tailed macaques have been exported from Indonesia, The Philippines, Cambodia, and Viet Nam, among others, which trade experts considered as "extremely unsustainable" in 2022.¹¹



INTRODUCTION

TO THE INTERNATIONAL TRADE IN PRIMATES FOR CLINICAL STUDIES

The use of non-human primates, such as long-tailed macaques, continues to be considered necessary in the drug development process for reasons that include regulatory requirements (in some countries) and ensuring the safety of new pharmaceuticals in humans.



With the increase in the development of biotherapeutics (drug therapy products where the active substance is extracted or produced from a biological source¹²) within the pharmaceutical industry in recent years, the number of non-human primates used for testing has also increased.¹³ During the COVID-19 pandemic, research animals were in demand to accelerate the development of COVID-19 vaccines as well as to improve diagnostics and develop additional treatment options.¹⁴ [Note: while there are reports of long-tailed macaques used in COVID research¹⁵, it is believed that rhesus macaques (*Macaca mulatta*) were the primary species used in COVID research.]

Long-tailed macaques *M. fascicularis* are listed as Endangered in the IUCN Red List of Threatened Species¹⁶ and are also the predominant species in the international trade in live primates for use in biomedical research.¹⁷ Both price and demand for *M. fascicularis* increased during the COVID-19 pandemic, relative to the already regular and frequent pre-pandemic capture and trade. This demand is an additional negative pressure on the species that has already been well-documented to be threatened by hunting.¹⁸

While the majority of *M. fascicularis* being traded for medical research are reported in the CITES trade database as being born in captivity from captive-bred parents, the overall trade does affect the management and conservation of the species across its range countries in Southeast Asia¹⁹. The magnitude of *M. fascicularis* trade and use for the purpose of scientific research can be detrimental to the conservation of wild populations. The breeding and trade of macaques historically has been poorly regulated in Southeast Asia, a significant supplier of these animals internationally.^{20, 21}

The CITES Trade Database between 2010 to 2019 inclusive, suggests that 95.6% of world exports of live long-tailed macaques originated from the following eight countries: Cambodia, China, Indonesia, Laos, Mauritius, The Philippines, Thailand, and Viet Nam.²²

The US was the largest importer of long-tailed macaques accounting for 58% of the total as declared on the CITES trade database between 2012 and 2022 (Hansen et al., 2022). Reports throughout Southeast Asia indicate a continued and even increased pressure on *M. fascicularis* throughout large expanses of its current range, with the 2022 IUCN Red List assessment noting a declining trend in its population. Some of the threats they face include from hunting and trapping, believed to be increasing as a result of human-macaque conflict and for subsistence, live animal trade for pets, zoological, and entertainment purposes, and to fuel both the legitimate and illicit trade for research.²³

The threat from wild caught animals being illegally laundered into commercial supply chains can also undermine the very purpose of testing on these animals. The process of using wild caught non-human primates has previously resulted in high levels of morbidity and mortality among these animals. The stress of capture, transport, and exposure to human pathogens resulted in epizootics [a disease event in an animal population akin to an epidemic in humans] of infectious diseases in newly imported populations²⁴. Animals that were already immunocompromised from stress encountered novel viral, bacterial, and parasitic agents²⁵ and were therefore subject to disease outbreaks that caused the loss of animals, poor animal quality, and compromised research programs^{26, 27, 28}.

This issue was also recently described as "illegally captured and undeclared wild-caught animals could pose a problem for the validity of clinical testing regimes as these animals are of unknown disease status and primates have a lot of zoonotic diseases as they are very closely related to people. The animals may be sick (and therefore not react or behave normally) or if they were participating in vaccine trials have pre-existing immunity to the pathogen concerned or cross reactivity to something similar,"²⁹ concluded Rachel Tarlington, a prominent expert on veterinary virology.

INCREASED DEMAND

AND DISRUPTED SUPPLY CREATE CRIMINAL OPPORTUNITY

China was the world's largest exporter of macaques until 2020 when its exports effectively dropped to zero. This fall is likely due to China's ban on the export of live animals due to the COVID-19 pandemic in January 2020³⁰, which contributed, at least in part, to the current global shortage of non-human primates for clinical testing³¹ given the capability of the long-tailed macaque breeding farms is insufficient to meet demand, and sales prices have increased dramatically since 2018³².

There are also reports of an increased domestic demand within China since the start of the COVID-19 pandemic due to the emergence of macromolecular biological drugs (used to treat tumours, autoimmune diseases, and metabolic diseases).³³ The organisations that frequently use them are contract research organisations (CROs), companies providing outsourced research services to the pharmaceutical, biotechnology, and medical device industries, as well as pharmaceutical and vaccine companies themselves.³⁴

ZOONOTIC DISEASE TRANSFER RISKS

Due to the close genetic relationship between non-human primates and humans, disease-causing organisms including bacteria, fungi, parasites, and viruses can be easily exchanged between non-human primates and humans. This risk can be accentuated in clinical settings where stress of capture and transport of wild caught animals can lead to increased disease shedding and frequent and persistent proximity with humans.³⁵ Diseases may be spread by bites, scratches, handling animals or their tissues, airborne transmission of aerosols and droplets, ingestion, and arthropod vectors. Often the non-human primate carries and transmits disease without any visible signs.³⁶

Wild caught animals that are being fraudulently declared as captive-bred represent a particular risk as suitable protective mitigations may not be considered necessary given the animals should supposedly not be exposed to the same diseases as wild populations. Detecting the spread of disease from an illegally laundered animal into a sample of captive bred animals can be particularly difficult for TB (*Mycobacterium tuberculosis*) complex. The tuberculin skin test remains the primary tool for diagnosis and surveillance despite documented evidence of its limitations, including unreliable identification of animals with latent MTBC

CITES DOCUMENTATION

A BRIEF INTRODUCTION

CITES regulates the international trade in over 40,900 species of plants and animals. Trade in specimens of species listed in the CITES Appendices requires issuance of official trade documentation in the form of permits and certificates. This system can result in numerous possibilities for corrupt practice, both when documents are issued and upon inspection at border crossings.³⁷

Captive breeding of wildlife for commercial purposes is often seen as a method to relieve pressure on wild populations, while still allowing trade to continue and contribute to

economic benefits and livelihoods. However, claiming specimens are captive-bred when they are in fact from the wild defeats this purpose.³⁸

The international trade of wildlife and forest products is generally regulated and managed by requirements for licenses, permits, certificates, and other forms of documentation, giving rise to numerous possibilities for corruption. Because officials can transform wildlife contraband into seemingly legal products with a single piece of documentation, these documents potentially have a significant

illicit value, leading to cases of abuse involving corrupt practices. Paperwork needed to move illegal products can be forged or changed, and genuine documents can even be bought from corrupt officials.³⁹ Falsely declaring the source of CITES-listed specimens is a common

form of abuse.⁴⁰ An in-depth review of the problem and recommendations to tackle these challenges can be found in: <https://www.traffic.org/site/assets/files/12675/topic-brief-addressing-corruption-in-cites-documentation-processes.pdf>

CRIMINAL CASE STUDY

THE SUSPECTED LAUNDERING OF 3,000 MACAQUES INTO US FACILITIES

The majority of detail within this case study comes from the US Indictment and from the Vanny group's website: (<http://vannylifesciences.com.hk/company.html>)

Note on Indictments: after a US prosecutor studies the information from investigators and from speaking with other individuals involved, the prosecutor decides whether to present the case to the grand jury. When a person is indicted, they are given formal notice that it is believed that they committed a crime. The indictment contains the basic information that informs the person of the charges against

them. An indictment is only an accusation and a defendant is presumed innocent unless and until proven guilty. (Related court documents and information may be found on the website of the District Court for the Southern District of Florida at www.flsd.uscourts.gov or at <http://pacer.flsd.uscourts.gov>)

The subjects in this case have been indicted but the case has not yet been tried and therefore no suggestion of guilt of the crimes discussed is placed with the individuals or companies described.

Vanny Group's "Campus II" is located in Pursat, about 200km Northwest of the capital Phnom Penh. It was established in 2006 and it is described as "the largest campus in Cambodia" and mentioned frequently in the US indictment (<http://vannylifesciences.com.hk/Campus%20II.html>)

On their website the company described themselves as:

"Vanny Group is established and domiciled in Hong Kong. We have solid development history for 20 years and have established different campuses in Vietnam and Cambodia. Our principal business is production, breeding, and husbandry of cynomolgus monkey for use in scientific and academic researches.

Our group currently employs around 280 staff in 3 operating regions (Hong Kong / Mainland China / Cambodia). The workforce represents an eminent integration of diverse and dynamic work culture. It is made up of management professionals from Hong Kong, qualified veterinaries and technical experts from the Mainland China and versatile domestic workforces from the operating regions."^{41, 42}

Under US law all imports of wildlife, including long-tailed macaques, must be declared to the US Fish and Wildlife Service and made available for inspection. Importers or their agents are required to provide, the source of the wildlife they are importing, specifically whether the wildlife was captive-bred, farm-raised, or wild-caught.

ALLEGED CRIMINAL OFFENCES IN THE INDICTMENT

The US indictment alleges that between 2017 and January 2022, the defendants arranged to illegally purchase additional long-tailed macaques from black market suppliers in Cambodia and Thailand to make up for the lack of supply of suitable monkeys at their breeding centres. US indictment alleges that the “illicit suppliers, including MAFF..., would primarily deliver the illegally acquired monkeys to the VBRC facility at Pursat” in Cambodia.

The US indictment alleged that CITES staff within Cambodia’s MAFF have facilitated:

1. Securing fraudulently obtained CITES export permits which falsely identified wild-caught macaques as captive-bred in the VBRC facilities;

2. The supply of wild-caught macaques from Cambodian National Parks and protected areas to VBRC for later sale and export;
3. The supply of fraudulent Transport Permits which allowed macaques unsuitable for the export trade to appear to have been captive bred at VBRC facilities;
4. To provide unofficial collection quotas, falsely suggesting that the populations were numerous enough to support a level of wild capture.

Upon entry into the United States, the long-tailed macaque shipments would allegedly be forwarded by truck from the port of entry to “a quarantine facility designated by the importer/consignees”, who were located in various States, including the Southern District of Florida.

SPECIFIC RISK INDICATORS AND POINTS OF NOTE

A few specific points came to light within the indictment that could assist businesses within the biomedical research supply field and their financial providers in managing their risk from this type of crime.

1. THE PRIMATE LAUNDERING PROCESS

While the exact details of the alleged process of how the wild animals were disguised as captive bred isn’t clear from the indictment, it does allege that;

“The defendants and their unindicted co-conspirators established a logistics system to allow buyers to inspect macaques prior to sale, including through the use of veterinarians, to test the monkeys for disqualifying conditions, quarantine shipments prior to export, and arrange the necessary ground and air transportation to facilitate the transactions.” The defendants allegedly supplied fraudulently obtained but genuine “Transport Permits which allowed macaques unsuitable for

the export trade to be sent from the Pursat facility to the Phnom Penh facility where they were euthanized and their identification tags transferred to wild-caught macaques, to make it appear the black-market monkeys were captive bred at VBRC facilities.”

“To secure CITES export permits which falsely identified wild-caught macaques as captive bred in the VBRC facilities.”

COMMENT: The alleged offences described appear throughout the supply chain and its oversight process making it particularly dangerous as it defeats the protections that should:

- A. ensure that the animals are suitable for clinical testing, thereby defeating the entire purpose of the animals as clinical test subjects,⁴³
- B. have protected as a species assessed to be endangered, and⁴⁴
- C. Controlled the movement of animals with a history of zoonotic disease transfer between primate species.⁴⁵

2. SUSPICIOUS TRANSACTIONS – ROUND NUMBER PAYMENTS

During June 2018, four defendants allegedly received a remittance document from an employee at Vanny HK reflecting that USD83,259 originating from Vanny Chain Technology (Hong Kong SAR) Limited passed through the Bank of America, N.A. in New York, NY and was received by VBRC’s Cambodian bank. Itemised on the remittance was USD40,000 for “PP Animal Collection 2,000 Heads.”

Also in June 2018, an employee of Vanny HK is alleged to have sent a Purchase Application Form for a “Donation for CPP Party” in the amount of USD10,000.

COMMENT: While round-number payments are a well-known risk indicator of a suspicious

transaction their presence here demonstrates this warning is still relevant. Genuine business payments for thousands of any item are unlikely to result in an exact round figure, particularly where currency exchange and import duties etc could be expected to play a part. If round payments are made to government officials it may be reasonable to conduct further checks on the nature of these transactions.

It should be noted that due to banking secrecy legislation and “tipping-off” offences it cannot be determined whether banking providers submitted suspicious transaction reports (STR), it is possible that this investigation was triggered by an STR.

3. CASH PAYMENTS FOR CORRUPTION

Around October 2019, VBRC staff allegedly discussed by email that they didn’t have enough cash on hand after having made payments to “MAFF” and requested USD30,000 from the VBRC Finance Manager for the collection fund to pay for an additional 100 animals which were in transit.

Between March and October 2020, VBRC allegedly paid approximately USD2,515,000 for approximately 14,300 wild-caught Long-tailed macaques received from seven black market suppliers.

COMMENT: the role of cash in criminality is very well documented, but its alleged use clearly continues. While it is unknown what percentage of the total illicit payments were made in cash it is likely that at least some proportion was in cash and that there would not be a legitimate reason for this cash. Given the nature of the trade this could have been an indicator of possible criminality.

CORRUPTION

AND ILLICIT FINANCIAL FLOWS WITHIN WILDLIFE MANAGEMENT AUTHORITIES

When considering the corruption risk around CITES officials a distinction should be made between what constitutes “corruption” and what is a “corruption risk”. While “corruption” refers to an act that has already occurred, “corruption risks” are vulnerabilities within a system that may present opportunities for corruption. For example, a park ranger accepting a bribe constitutes “corruption”, whereas a situation where a Forestry Official working alone in a remote area with little oversight is a “corruption risk”. In this sense, a response to “corruption” is always reactive, whereas a response to a perceived “corruption risk” is proactive.

This topic can be explored in detail within; **UNODC’s Scaling Back Corruption A Guide On Addressing Corruption For Wildlife Management Authorities** (https://www.unodc.org/documents/Wildlife/19-08373_Scaling_Back_Corruption_ebook.pdf). The guide concentrates on corruption risks and ways in which these can be identified and mitigated.

TRAFFIC acknowledges and supports the critical work that officials from national CITES Authorities deliver in management and control of trade in endangered species while simultaneously recognising that some of these officials may represent a corruption risk and may be suitable for enhanced due diligence. A corruption risk assessment does not infer that a wildlife management authority’s personnel are corrupt, but rather allows additional scrutiny and responses to be directed to potential threats.

The topic is also explored in UNODC’s Wildlife and Forest Crime, Analytic Toolkit second edition 2022 (https://www.unodc.org/documents/Wildlife/Toolkit_e.pdf). The section on corruption of public officials is quoted below and describes the types of

threats that are alleged to have occurred in this case along with a range of detailed responses and mitigations.

“Wildlife crime would not be possible on an international scale without the involvement of public officials. While most public officials working in the wildlife and forest sectors are law-abiding and execute their duties diligently, the set up and circumstances in which many officials work can make them vulnerable to corruption and create opportunities to accept or solicit bribes or embezzle funds meant for wildlife and forest protection.”

These types of corruption threats are common to many senior staff within government office, and some of the money laundering threats can be mitigated to a certain degree through the politically exposed person (PEP) management system.

A politically exposed person (PEP) is defined by the Financial Action Task Force (FATF) [The global Anti money-laundering policy lead] as an individual who is or has been entrusted with a prominent public function. Due to their position and influence, it is recognised that many PEPs are in positions that potentially can be abused for the purpose of committing money laundering (ML) offences and related predicate offences, including corruption and bribery. Further details can be found here:

<https://www.fatf-gafi.org/en/publications/Fatfrecommendations/Peps-r12-r22.html>

Global anti-money laundering systems can represent one of the better opportunities to identify and trace corruption, therefore financial institutions can, and are often legally obliged to, protect not only their own business from the risks of handling illicit finance but help control corruption more widely.



RECOMMENDATIONS

FOR FINANCIAL INSTITUTIONS:

The threat from criminality around the primate trade is likely to persist or even increase due to the shortage of primates to conduct clinical testing⁴⁶. Given that CITES permitting abuses are an effective criminal methodology for circumventing controls it is likely that criminals will continue to seek to tempt public officials to participate in corrupt activity to enable these crimes.

Particular threats occur where captive primate breeding facilities exist alongside wild populations. The risk of laundering wild caught animals should be assessed and additional due diligence should be explored, including:

EXAMINING PAYMENTS AND POLITICAL DONATIONS

from vested interest groups to CITES officials. There is no there is no suggestion that all CITES officials are likely to be involved in corruption, but their unique role as gatekeepers in a relatively high value trade presents a specific corruption risk. Lists of CITES staff are available per country via the CITES website (<https://cites.org/eng/parties/country-profiles>) and could be considered for enhanced due diligence on a risk based approach.

QUESTION ROUND FIGURE PAYMENTS

While this is amongst the oldest anti money-laundering (AML) recommendations, the use of these types of payments in the indictment suggest that it is still relevant.

MONITORING USE OF CASH

compared to other businesses of a similar profile and scale, again this is a well-known risk but its appearance here shows its ongoing relevance when combined with the trade threats outlined above.

In addition to these very well known, but still prevalent, criminal methodologies, the US Financial Intelligence Unit, FinCEN, has identified indicators that occur most commonly with financial transactions linked to wildlife trafficking that are also relevant to the threat of laundering wild caught animals.⁴⁷

These are indicators that may occur most commonly with wildlife trafficking involving the United States or the U.S. financial system and are meant to highlight and supplement information provided by bodies such as FATF.

PREVALENCE OF IMPORT-EXPORT AND LOGISTICS COMPANIES

FinCEN's analysis of wildlife trafficking-related SARs found international trade companies, including import-export, freight forwarding, customs clearance, logistics, travel agencies, or similar types of companies may be associated with wildlife trafficking, by either knowingly or unknowingly moving animals or animal-associated products or parts, or by being used as front companies for the movement or laundering of illicit proceeds.

TRANSACTIONS REFERENCING WILDLIFE-ASSOCIATED CARE OR EQUIPMENT

Some illicit actors engaged in wildlife trafficking conduct transactions related to the purchase or maintenance of enclosures, aquariums, food, poaching-related equipment, large game equipment, or harnesses. Wildlife-related medication or veterinary services also may be associated with the storage or care of illegally trafficked animals. Additionally, transactions appearing to benefit medical or pharmaceutical research could be indicative of animals illegally trafficked for medical research.

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WORKING TO ENSURE THAT TRADE
IN WILD SPECIES IS LEGAL AND
SUSTAINABLE, FOR THE BENEFIT OF
THE PLANET AND PEOPLE

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