UNODC
United Nations Office on Drugs and Crime

West and Central Africa

Wildlife Crime Threat Assessment

Commissioned by the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

Threat assessment undertaken by the United Nations Office on Drugs and Crime (UNODC)

Contents

Introduction

This report was commissioned by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Secretariat, and prepared by the United Nations Office on Drugs and Crime (UNODC), in support of the implementation of Decision 17.97, paragraph a), on *Wildlife crime enforcement support in West and Central Africa,* adopted at the 17th meeting of the Conference of the Parties to CITES (CoP17, Johannesburg, 2016).

Decision 17.97, paragraph a) states as follows:

Directed to the Secretariat

17.97 The Secretariat shall, subject to external funding:

a) in collaboration with the United Nations Office on Drugs and Crime (UNODC) and with the support of the International Consortium on Combating Wildlife Crime (ICCWC) and relevant stakeholders, commission a threat assessment report on illegal wildlife trade in West and Central Africa, to identify and collate information regarding trade routes, techniques and trends relating to wildlife trafficking in the two sub-regions, including recommendations on priority measures necessary to address and significantly reduce wildlife crime in the two sub-regions;

For West Africa, the need for such analysis has also been recognised by CITES Parties in the region, as exemplified by the signing of the Dakar Declaration on the Development of Subregional Wildlife Enforcement Collaboration in Dakar, Senegal, in March 2016.[15]

In July 2018, a meeting of the Economic Community of West African States (ECOWAS) in Abuja, Nigeria, recommended the development of a *West Africa Strategy on Combating Wildlife Crime*.[16] It is expected that this Report will contribute to two of the objectives of this proposed Strategy, namely to:

- Analyze the illegal exploitation and illegal trade in wild fauna and flora across the subregion, including trade routes and seizure data;
- Identify key areas of need for enforcement agencies tasked with combating poaching and wildlife trafficking in the subregion.[17]

It is also expected that that this Report will make an important contribution to the *Strategic Areas of Intervention and Priority Recommendations to Develop a Counter Wildlife Trafficking Response in West Africa*,[18] and the African Union *African Strategy on Combating Illegal Exploitation and Illegal Trade in Wild Fauna and Flora in Africa*.[19]

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[15] https://www.fws.gov/international/pdf/Dakar-declaration-English-French.pdf

[16] *CITES Standing Committee document SC70 Inf. 3, available at: https://cites.org/sites/default/files/eng/com/sc/70/Inf/E-SC70-Inf-03.pdf*

[17] *Op cit., action points 4 (i) and 4 (iv)*

[18] *CITES Standing Committee document SC70 Inf. 2, available at: https://cites.org/sites/default/files/eng/com/sc/70/Inf/E-SC70-Inf-02.pdf*

[19] *Component 6, Action 2:*

https://au.int/sites/default/files/documents/33796-doc-african_strategy_strategy_africaine_au.pdf

This threat assessment was developed as an activity delivered under the ICCWC Strategic Programme 2016-2020,[20] through funding generously made available to ICCWC by the European Union, the Principality of Monaco and the United Kingdom of Great Britain and Northern Ireland.

Brief methodological overview

The threat assessment focuses on West and Middle Africa as defined by the United Nations:

Central (Middle) Africa: Angola, Cameroon, the Central African Republic, Chad, the Republic of the Congo, the Democratic Republic of the Congo (DRC), Equatorial Guinea, Gabon, and São Tomé and Príncipe.

West Africa: Benin, Burkina Faso, Cape Verde, Gambia, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Liberia, Mali, Mauritania, Niger, Nigeria, Saint Helena, Senegal, Sierra Leone, and Togo.

An overview of the main sources of information utilized in the preparation of this report is included below. A complete discussion of the statistical estimations and the fieldwork conducted are available in an on-line Methodological Annex.

The report is based on both qualitative and quantitative data, as well as data available from the following sources:

- CITES Illegal Trade reports
- CITES Monitoring the Illegal Killing of Elephants (MIKE) Programme
- CITES Elephant Trade Information System (ETIS)[21]
- International Union for Conservation of Nature - Species Survival Commission (IUCN-SSC) population data
- National administrative records
- Trade statistics, including UN COMTRADE and the International Tropical Timber Organization.
- UNODC forensic data
- UNODC World WISE wildlife seizures database
- World Bank Development Indicators

A review of the above trade and seizure data identified key countries throughout West and Central Africa which were most affected by wildlife crime. To identify and collate information regarding trade routes, techniques and trends relating to wildlife trafficking in West and Central Africa, fieldwork was conducted in countries throughout these two subregions. Eight consultants were commissioned to produce this work, involving research in seven countries of the region.

[20] https://cites.org/eng/prog/iccwc.php/Strategy

[21] *UNODC appreciate the collaboration of TRAFFIC regarding the provision of ETIS data on West and Central Africa.*

Fieldwork was undertaken between June and October 2018 in following countries:

- Cameroon
- DRC
- Gabon
- Gambia
- Guinea-Bissau
- Nigeria
- Senegal

Fieldwork primarily took the form of context-specific interviews with:

- high ranking officials in the relevant Ministries and departments
- front line enforcement officers
- poachers
- traders in both legal and contraband goods
- rangers and park wardens
- experts from academic institutions and non-governmental organizations

In addition, harvesting and processing sites were visited, as well as open markets, border crossing points, and relevant ports. In interviews with officials, national statistical data and guidance on the relevant regulations were requested.

Statistical and legal data were also gathered from Cote d'Ivoire, Liberia and the Republic of Congo. Reference is also made to fieldwork conducted by UNODC in preparation for the first *World Wildlife Crime Report* in Benin, Burkina Faso, Central African Republic, Mali, Nigeria and Togo.

Defining wildlife crime for the purposes of the threat assessment

For the context of this threat assessment report, "'Wildlife' means all fauna and flora. 'Fauna' are animals and birds, such as tigers and falcons, but also include fish. 'Flora' are plants, such as orchids or cacti, but also include timber and non-timber forest products, some of which are illegally traded at very significant levels. 'Crime', refers to acts committed contrary to national laws and regulations intended to protect natural resources and to administer their management and use. This may start with the illicit exploitation of natural resources, such as the poaching of an elephant, uprooting of a rare orchid, unauthorized logging of trees, or unlicensed netting of sturgeons. It may also include subsequent acts, such as the processing of fauna and flora into products, their transportation, offer for sale, sale, possession, etc. It also includes the concealment and laundering of the financial benefits made from these crimes. Some of these crimes will take place solely in the country of origin, whilst others will also occur in the country of destination, where live fauna or flora specimens, or their parts and derivatives, are finally consumed. At the international level, crime also involves violations of the Convention on International Trade in Endangered Species of Wild Fauna and Flora

(CITES), which regulates exports, imports and re-exports of wildlife. Countries of transit may also be affected" [22]

[22] https://cites.org/eng/prog/iccwc.php/Wildlife-Crime

West and Central Africa is a large and diverse area encompassing 26 nations.[23] It is home to more than half a billion people, some 42% of the African population[24]. The countries of the region vary greatly in size, from St Helena (about 4,000 inhabitants) to Nigeria (just under 200 million). Some are highly urbanised (like Gabon, where 87% of the population lived in cities in 2016), while others are not (like Niger, where 81% of the population was rural). Life expectancy varies from 52 (Central African Republic) to 72 (Cape Verde). [25]

The land area, too, is vast and varied, with deserts on both ends and a rainforest in the middle. At its north, the Sahel fades into the Sahara. At its core, it contains the second largest rainforest in the world, centred on the river Congo.[26] To its south, it gives way to the Namib Desert. It includes the Virunga mountain range, and parts of the Rwenzori. It is an area of rich biodiversity, from the Guinean Forests of West Africa to the Eastern Afromontane. The region hosts some of the world's greatest populations of large mammals in the wild, as well as rich bird and sea life, and unique species of all kinds. While most countries of the region have seen a reduction in their forested area in the past 25 years, some have seen increases (Figure 1). The reasons for these changes could be many, including changes in estimation methods, but it appears forest cover is increasing across five countries, while decreasing amongst others in the region.

[23] The United Nations definition of "West Africa" includes 17 countries, close to the membership of ECOWAS: Benin, Burkina Faso, Cape Verde, Gambia, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Liberia, Mali, Mauritania, Niger, Nigeria, Saint Helena, Senegal, Sierra Leone, and Togo. There is no definition of "Central Africa", but "Middle Africa" encompasses much of ECCAS, including Angola, Cameroon, the Central African Republic, Chad, the Republic of the Congo, the Democratic Republic of the Congo, Equatorial Guinea, Gabon, and São Tomé and Príncipe.

[24] According to the United Nations Statistical Division, the population of Africa was about 1.3 billion in 2018, including about 382 million in West Africa and 169 million in Middle Africa.

[25] All data from World Bank, World Development Indicators.

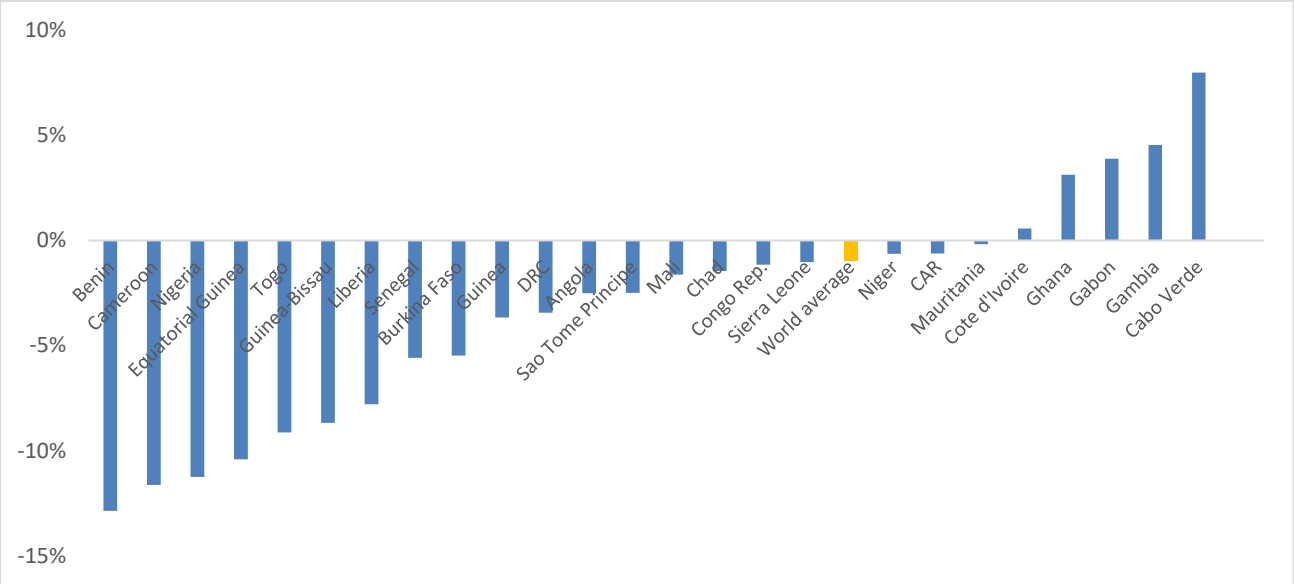
[26] FAO, The State of Forests in the Amazon Basin, Congo Basin and Southeast Asia: A report prepared for the Summit of the Three Rainforest Basins, Brazzaville, Republic of Congo, 31 May–3 June 2011

http://www.fao.org/docrep/014/i2247e/i2247e00.pdf


WEST AFRICA
ALGERIA
LIBYA
MAURITANIA
MALI
NIGER
CHAD
SENEGAL
GAMBIA
GUINEA-BISSAU
GUINEA
SIERRA LEONE
LIBERIA
CÔTE D'IVOIRE
BURKINA FASO
GHANA
TOGO
BENIN
NIGERIA
CAMEROON
EQUATORIAL GUINEA
SAO TOME AND PRINCIPE
GABON
Western Sahara
CABO VERDE
ATLANTIC OCEAN
Gulf of Guinea
Bight of Benin
Nouakchott
Dakar
Banjul
Bissau
Conakry
Freetown
Monrovia
Yamoussoukro
Bamako
Ouagadougou
Niamey
Accra
Lomé
Porto-Novo
Abuja
Malabo
Yaoundé
Praia
The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.
Map No. 4588 UNITED NATIONS
October 2014
Department of Field Support
Cartographic Section


MIDDLE AFRICA
ALGERIA
NIGER
NIGERIA
CHAD
SUDAN
EGYPT
SOUTH SUDAN
CENTRAL AFRICAN REPUBLIC
CAMEROON
EQUITORIAL GUINEA
SAO TOME and PRINCIPE
GABON
CONGO
DEMOCRATIC REPUBLIC OF THE CONGO
ANGOLA
ZAMBIA
NAMIBIA
UGANDA
RWANDA
BURUNDI
UNITED REP. OF TANZANIA
MOZAMBIQUE
ZIMBABWE
ATLANTIC OCEAN
Abuja
Khartoum
Juba
Kampala
Kinshasa
Brazzaville
Luanda
Lusaka
Harare
Libreville
Yaoundé
Bangui
N'Djamena
Faya-Largeau
Fada
Am Djarass
Biltine
Abéché
Mao
Moussoro
Massakory
Mongo
Goz Beida
Am Timan
Messenya
Bongor
Pala
Lai
Sarh
Koumra
Doba
Moundou
Ndélé
Bria
Kaga Bandoro
Bossangoa
Bouar
Bossembélé
Bambari
Bangassou
Obo
Ngaoundéré
Bamenda
Bafoussam
Bertoua
Buéa
Douala
Malabo
Ebolowa
Berberati
Nola
Mbaiki
Mobaye
Gemena
Buta
Isiro
Lisala
Bunia
Oyem
Ouesso
Impfondo
Makokou
Owando
Mbandaka
Kisangani
São Tomé
Port-Gentil
Lambaréné
Koulamoutou
Mouila
Oyo
Masuku
Boende
Inongo
Tchibanga
Djambala
Gamboma
Ollombo
Sibiti
Dolisie
Loango
Pointe-Noire
Cabinda
Matadi
Kenge
Lusambo
Kananga
Kabinda
Kalemie
Goma
Kigali
Bukavu
Kindu
Bujumbura
M'banza Congo
Tshikapa
Mbuji-Mayi
Uige
Caxito
Ndalatando
Malanje
Lucapa
Kamina
Saurimo
Kolwezi
Lubumbashi
Sumbe
Luena
Kuito
Benguela
Huambo
Menongue
Lubango
Namibe
Ondjiva
The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.
Final boundary between the Republic of the Sudan and the Republic of South Sudan has not yet been determined.
Final status of the Abyei area is not yet determined.
Map No. 4235 Rev. 2 UNITED NATIONS
July 2014
Department of Field Support
Geospatial Information Section (formerly Cartographic Section)

Figure 1: Change in forest area as a share of land area between 1990 and 2015



Source: World Bank[27]

Poverty and primary commodity dependence

Taken as a whole, West and central Africa is arguably the poorest area of the world. Of the 26 countries in the two sub-regions, 19 are on the United Nations Development Programme's list countries of low development,[28] comprising about half of that list, and 16 appear on the United Nations list of Least Developed Countries.[29] While some countries are growing economically (such as Cote d'Ivoire, where the GDP expanded by 8.3% in 2016), others are contracting (such as Equatorial Guinea, where the economy shrunk by 8.6% that same year).[30]

One key driver of this economic development is trade, particularly with Asia, mainly comprised of the export of natural resources and the import of manufactured goods.[31] Among these natural resources are wildlife products. The African continent is geographically contiguous with Eurasia, which means that species found far to the East have close relatives in the West and Central Africa. Thus, there are both African and

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[27] https://data.worldbank.org/indicator/AG.LND.FRST.ZS?view=chart

[28] *Based on the UNDP Human Development Index. In West Africa (from most to least developed): Nigeria, Mauritania, Benin, Senegal, Togo, Cote d'Ivoire, Gambia, Guinea, Liberia, Mali, Burkina Faso, Sierra Leone, and Niger. In Central Africa, DRC, Chad, and CAR.*

[29] *In West Africa (in alphabetical order): Benin, Burkina Faso, Gambia, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Senegal, Sierra Leone, and Togo. In Central Africa, CAR, Chad, and DRC.*

https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/ldc_list.pdf

[30] *https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?view=chart*

[31] *For example, the value of Nigeria's exports to China tripled, while imports from China were 18 times larger, between 2000 and 2016. During the same period, China's exports to Angola increased by a factor of eight, while imports increased 50-fold. In 2016, Angola was the largest African exporter to China, and the Republic of the Congo was third, while Nigeria was the third largest importer. See the China Africa Research Initiative at Johns Hopkins University's School of Advanced International Studies, 2018:*

http://www.sais-cari.org/data-china-africa-trade

Asian elephant, African and Asian rhinoceros, African and Asian lion, African and Asian pangolin. The dramatic growth in wealth in Asia has increased consumer demand, overtaxing the utilisation of many Asian species. As the case studies in the following chapters will show, it appears that those who supply wild products to markets in Asia are increasingly looking to Africa for similar species, and the emerging trade chains are vulnerable to the introduction of illegally harvested and illegally traded wildlife products.

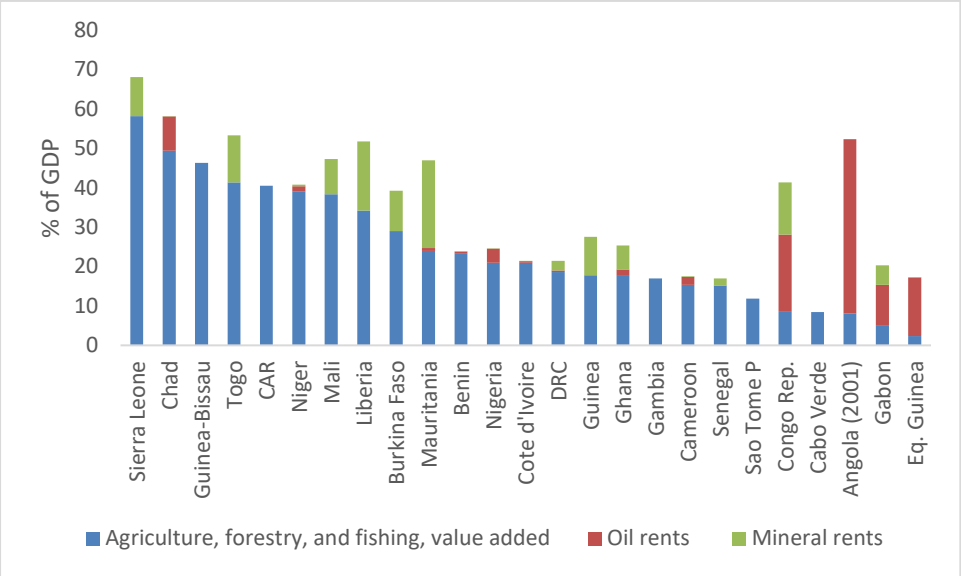
There is a gendered aspect to illegal wildlife harvesting, as big game poachers are overwhelmingly male. Beyond the pecuniary motivation, hunting may be one way economically marginalised men can demonstrate their masculinity, while leaving agricultural subsistence to the women. Field research conducted by UNODC highlights the fact that concepts of identity and masculine tradition are as important to African hunters as they are to hunters in other parts of the world.

In addition to wildlife, Africa hosts much of the world's untapped natural resources, as well as vast reserves of arable land. Agriculture is responsible for a large share of the economies of many countries in the region (Figure 2), and, in some where it is less significant, mineral or oil extraction significantly contribute to the economy. Primary resource commodity dependence enhances the volatility of the regional economy and may even contribute to the political instability seen in many countries.[32] For example, it has been argued that mineral wealth can undermine both economic and political development by reducing the incentives to diversify the economy, emancipating public officials from tax reliance, and fuelling corruption.[33]

[32] *Paul Collier and Anke Hoeffler, 'On the incidence of civil war in Africa'. Journal of Conflict Resolution Vol 46, No 1, pp 13-28, 2002.*

[33] *On the economic side, see Jeffrey Sachs and Andrew Warner, 'Natural resource abundance and economic growth'. NBER Working Paper 5398, 1995.*

Figure 2: Agriculture, oil, and minerals as a share of GDP in 2016



Source: World Bank[34]

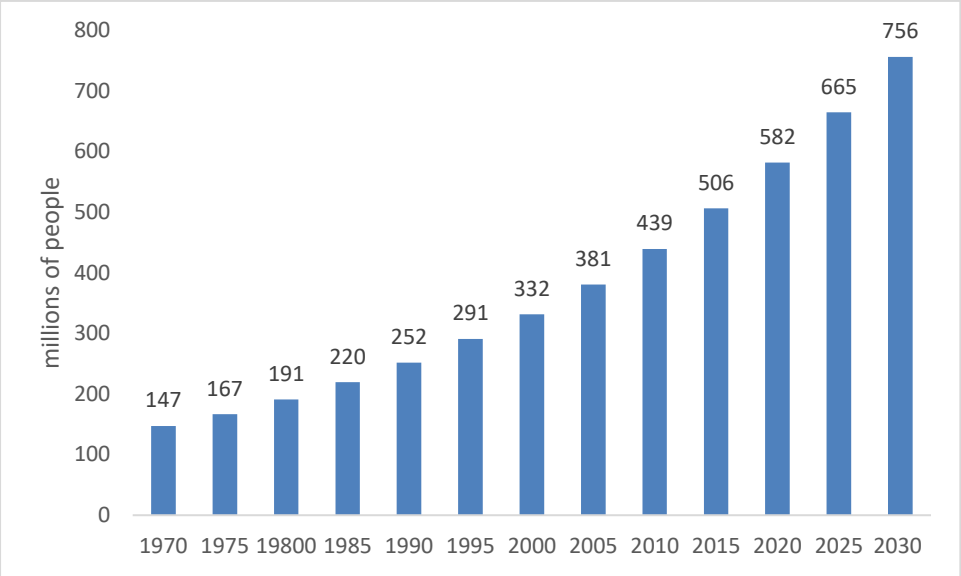
Expanding populations and competition for resources

In a sense, it is the region's lack of development that has preserved its wildlife, because the areas that remain for animals and plants are precisely those that have not been developed for agriculture, natural resource extraction, or urbanization. The viability of leaving these areas fallow narrows as the population grows, however. Between 1970 and 2015, the regional population more than tripled, and it is expected to grow by another 250 million people by 2030 (Figure 3). Rapid population growth has resulted in a bottom-heavy population pyramid, with a large youthful population.[35] Despite this growing population, large areas of unexploited land remain, particularly areas where conflict has rendered conditions too dangerous for industrial development.

[34] https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS
https://data.worldbank.org/indicator/NY.GDP.PETR.RT.ZS
https://data.worldbank.org/indicator/NY.GDP.MINR.RT.ZS

[35] *Of the top 10 dependency ratios in the world, six are in West and Central Africa. The following countries all had more than 90 dependents per 100 working age adults in 2017: Niger, Mali, Chad, DRC, Angola, and Gambia.*
https://data.worldbank.org/indicator/SP.POP.DPND

Figure 3: Estimated population of West and Central Africa, 1970-2030



Source: United Nations Population Division[36]

Political instability and corruption

Since independence, the countries of West and Central Africa have been subject to many irregular changes of government,[37] while they have also been the home of some of the world's longest standing national rulers.[38] Civil war hit the region hard in the 1990s and continues to affect many areas. At present, six of 14 active United Nations Peacekeeping missions are found in areas in or adjoining the region, including about 85,000 of around 100,000 peacekeeping troops deployed globally.[39]

Poverty and instability have made it difficult for the civil service to retain and equip sufficient numbers of trained staff to control wildlife extraction, a topic discussed in later chapters of this report. Where a deterrent threat is posed, it is often circumvented by corruption. By most international indicators, the countries of this region suffer from very high levels of corruption, particularly in law enforcement. In 2013, Transparency International (TI) asked people in 94 countries whether they had paid bribes to officials in certain categories when they had contact with them in the previous year. With regard to the police, of the top 10 countries with the highest share of bribe payers globally, six

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[36] *United Nations, Department of Economic and Social Affairs, Population Division (2017). World Population Prospects: The 2017 Revision, custom data acquired via website.*

[37] *According to one open compilation, out of 51 coups and attempted coups globally this millennium, nearly half (24) were in West and Central Africa, involving 11 of the 26 countries of the region.*

http://www.uky.edu/~clthyn2/coup_data/powell_thyne_coups_final.txt

[38] *These include Paul Biya of Cameroon, Teodoro Obiang of Equatorial Guinea, Denis Nguesso of Congo Brazzaville, Joseph Kabila of DRC, Idriss Déby of Chad, and, until recently, Lansana Conté of Guinea, Omar Bongo of Gabon, Blaise Compaoré of Burkina Faso and Yahya Jammeh of Gambia. All of these leaders have been, or were, in power for over 18 years, with some exceeding 40 years of rule. Some were related to the preceding or following national leader. Some achieved power through coup.*

[39] https://peacekeeping.un.org/en/where-we-operate

were countries in West and Central Africa, including the top five, where over three-quarters of respondents had felt compelled to pay bribes.[40]

In a survey of almost 35,000 Nigerians, UNODC found the police were the public officials most commonly bribed. The figures were less dramatic than in the 2013 TI survey (just under half of those who had contact with police in the previous year paid a bribe), but many paid more than once. Each person who reported paying bribes paid an average of 5.3 bribes in the previous 12 months. In fact, 30% of all bribes paid in Nigeria were paid to police before they would perform a needed service, and three-quarters of these bribes were directly requested by the police.[41]

In the end, while it is difficult to generalise about the experiences of 26 countries, most of the people of the region are living in conditions characterised by:

- Poverty and primary commodity dependence (agriculture, oil, and minerals);
- Rapidly expanding populations and associated competition for resources;
- Political instability and simmering conflict;
- Weak sectorial governance, hindered by lack of resources and vulnerability to corruption.

To better understand the latter factor, UNODC conducted a study of the wildlife laws and the resources available for wildlife law enforcement across seven countries. The findings of this study are highlighted in the following chapter.

[40] *The top five countries were Sierra Leone (90%), Nigeria (81%), Ghana (79%), the DRC (78%), and Liberia (77%). Cameroon (69%) was in the top 10 and Senegal (54%) was lower.*

https://www.transparency.org/gcb2013/in_detail

[41] *UNODC, Corruption in Nigeria: Bribery - public experience and response. Vienna: UNODC, 2017.*

Effective responses to wildlife crime in West and Central Africa are inhibited by a lack of capacity

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The previous chapter spoke to why West and Central Africa are vulnerable to wildlife crime. This chapter explores the region's ability to respond to wildlife crime. As might be anticipated, these very poor countries are unable to marshal public resources proportionate to the size of the areas they intend to protect. As a result, despite some notable successes, wildlife criminals experience a high degree of impunity when operating in this area, and the region is likely to remain dependent for some time on external assistance to fortify local wildlife protection efforts.

In field research for this report, UNODC assessed the legal structure and resources allocated to the enforcement of these laws in seven countries in the region.[42] Official statistics and documents were supplemented with interviews with officials and experts in the region. The following discussion is based on this research.

The laws pertaining to wildlife are complex. Typically, offences related to forestry, fisheries, other wildlife, and protected areas are found in different pieces of legislation and are subject to different regulations, sometimes promulgated by different ministries. Regulations may often be amended by decree of the relevant minister, so understanding the regime requires constant monitoring. Many activities involving harvesting of natural resources are legal if licensed and illegal if unlicensed. Harvesting techniques, catch and stump sizes, quotas, and harvest seasons may be regulated. In countries like Nigeria, forestry is largely regulated at local (state) level, but national regulations also exist. As a result, evaluating the quality and sufficiency of the legislative framework is difficult.

Based on the laws reviewed, wildlife offences in most of the states surveyed would not meet the criteria for "serious crime" as set down in the United Nations Convention on Transnational Organized Crime: they do not carry penalties allowing imprisonment of four or more years.[43] The Republic of Congo and Senegal are exceptions in this regard, where killing of a protected animal or the international transport of a protected species without a permit can carry penalties of up to five years in prison.[44]

To enforce these laws, at least three major sectors of government need to be involved:

- The national and local police;
- Customs;
- Specialized wildlife protection and investigation agencies, including those specialized in timber and fisheries.

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[42] Cameroon, Democratic Republic of Congo, Guinea, Liberia, Nigeria, Republic of Congo, and Senegal. These countries were selected due to their relevance to wildlife trafficking and availability of data.

[43] UNCTOC, Article 2 (b)

http://www.unodc.org/documents/treaties/UNTOC/Publications/TOC%20Convention/TOCebook-e.pdf

[44] In Congo, killing of a protected animal or the international transport of a protected species without a permit can carry penalties of up to five years in prison. RoC Law 37/2008, articles 112 and 113. In Senegal, hunting of a protected species or in a protected area can result in imprisonment of 1-5 years, under Law 86-04 of January, 24, 1986.

In addition, several other national government agencies could have a stake in wildlife crime enforcement. For example, public health and agriculture authorities may have an interest in regulating the international movement of wild animals and plants to prevent the transmission of disease. Food and medicinal products being prepared or distributed locally would also concern these authorities, and any high value cross border commerce should attract the attention of excise and tax enforcement agencies.

Harvesting and sale of protected species, without appropriate approvals and/or licences, is generally a crime under national law, but fieldwork indicates low awareness of this offence category, with few countries having specialised investigators or agencies. The police in these countries often have many other issues to worry about, including the maintenance of internal stability. As noted in the previous chapter, they, like other public officials, are also vulnerable to corruption. Similarly, customs authorities interviewed suggested that they are often under pressure to accelerate processing in order to support economic development and reduce opportunities for corruption.

In practice, in many countries, the responsibility for enforcing wildlife law tends to fall on the rangers assigned to protected areas, as demonstrated by Table 1 below. In many countries, this capacity is greatly supplemented by direct assistance from foreign governments and international NGOs. For example, the region is home to several reserves managed by "African Parks",[45] an NGO that rehabilitates protected areas in partnership with the government. Without this assistance, the national authorities would be hard pressed to provide protection to wildlife, since their national agencies charged with this responsibility tend to be desperately underfunded relative to the size of the task. No country in the sample spent more than US$10 per hectare of protected area in the most recent year for which data were available as shown in Figure 6. According to a high-level official interviewed as well as non-governmental sources, Guinea has no budget allocation for protected areas; all resources are provided by international donors.

Table 1: Primary agency responsible for investigating wildlife and forest crime

Cameroon	Rangers of the Ministère des Forêts et de la Faune (MINFOF)[46]
Congo	Rangers and Ecoguards of the Ministry of Forest Economy (MEF)
DRC	Corps en charge de la sécurisation des Parcs Nationaux (CorPPN)
Guinea	Rangers and police, especially the Interpol NCB
Liberia	Forestry Development Authority

[45] These include Chinko (CAR), Ennedi (Chad), Garamba (DRC), Odzala-Kokouma (Congo Brazzaville), Pendjari (Benin) and Zakouma (Chad). African Parks fields 1000 rangers across all of their reserves, and claims 555

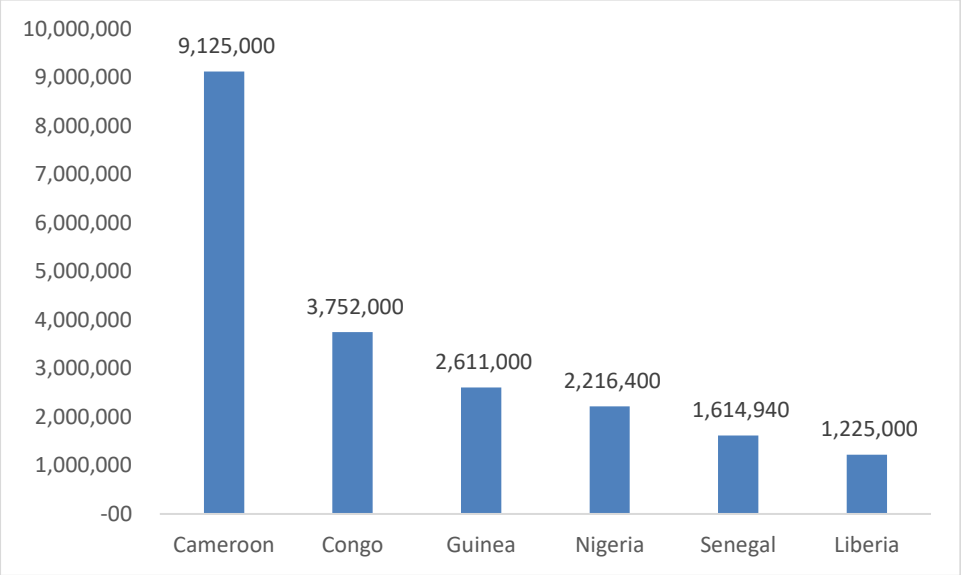
Arrests and 282 convictions in 2017. See Africa Parks Annual Report 2017:

https://www.africanparks.org/sites/default/files/uploads/resources/2018-06/African%20Parks_2017_Annual%20Report_0.pdf

[46] The designated CITES Enforcement Authority is the Ministère de l'Elevage, des Pêches et Industries Animales.

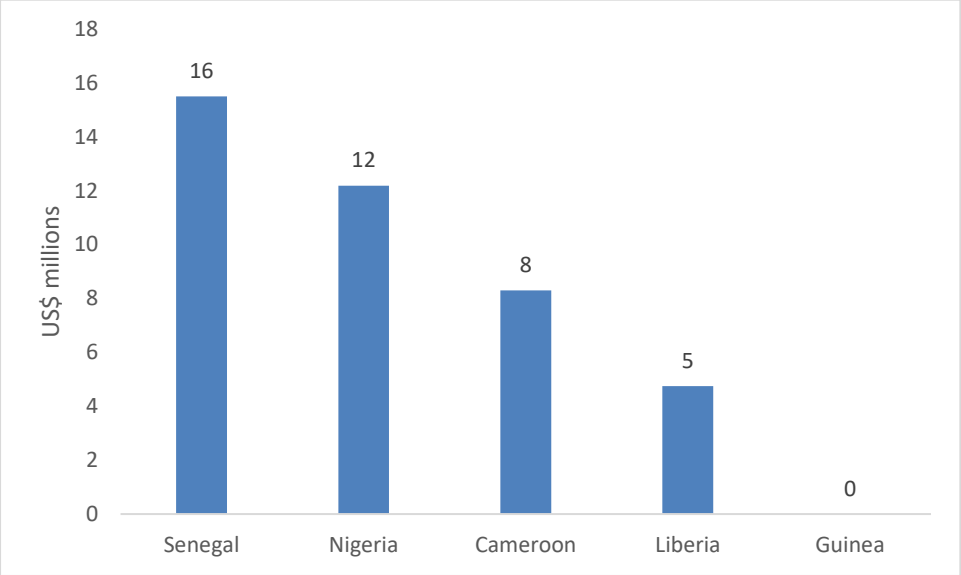
Nigeria	National Parks Service, Nigeria Agricultural Quarantine Service (NAQS), Customs, Police, National Environmental Standards and Regulations Enforcement Agency (NESREA)
Senegal	Direction des Eaux et Forêts, de la Chasse et de la Conservation des Sols (DEFCS); Mixed brigade on illegal logging (police, gendarmerie, rangers, armed forces)

Figure 4: Hectares of protected area



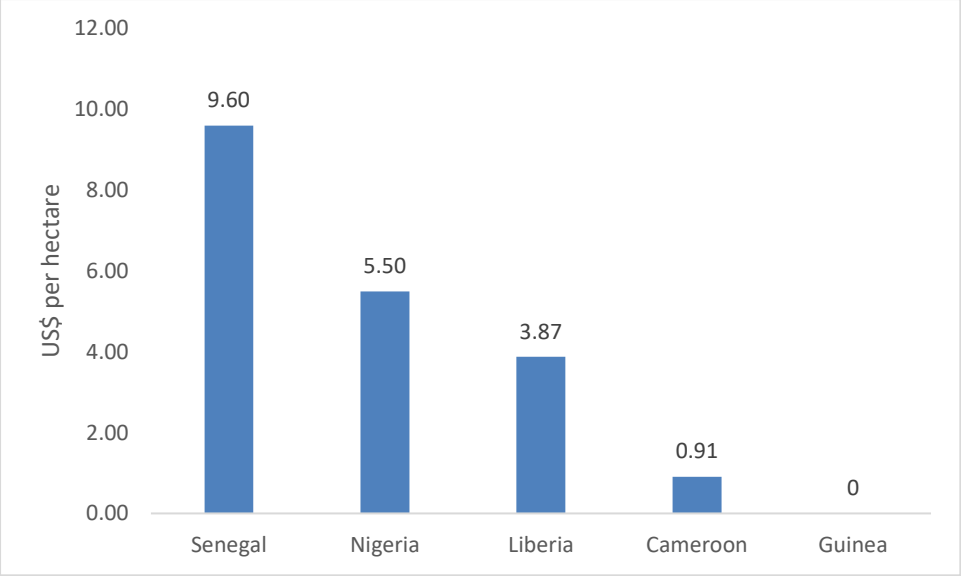
Source: National statistics gathered for this study

Figure 5: National budget for protected areas in 2017 (US$ millions)



Source: National statistics gathered for this study

Figure 6: National budget for protected areas per hectare of protected area in 2017

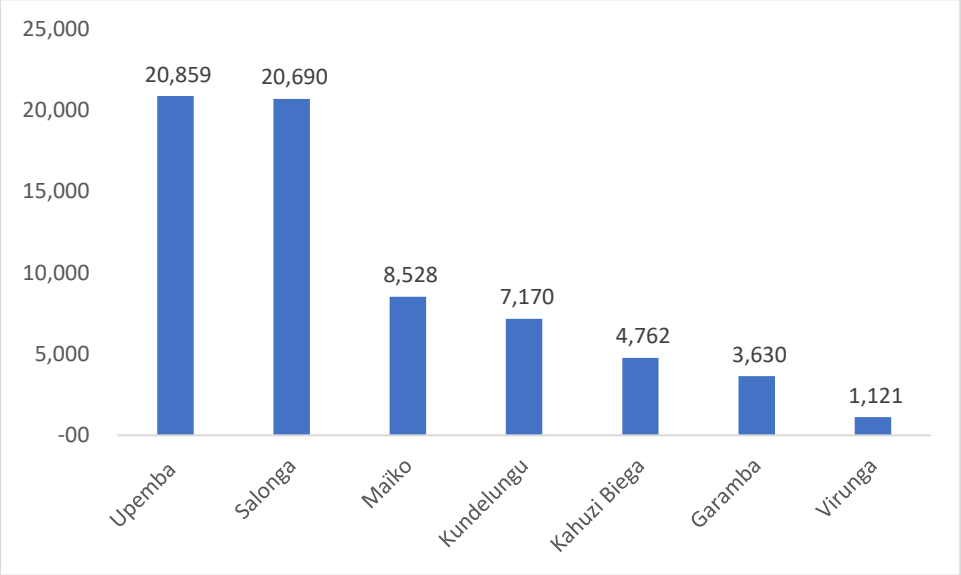


Source: National statistics gathered for this study

This lack of funding impacts on the total number of enforcement personnel, and the number of enforcement personnel per hectare protected. Nigeria fields 1500 personnel who could be classified as "eco-guards" or rangers, Guinea 750 (all donor funded), Cameroon 360, and Senegal 306. In the DRC, there is considerable difference in the area rangers are assigned to patrol, with some rangers responsible for between 1000

and 21,000 hectares (200 square kilometres) of protected area (Figure 7), depending on the reserve. The average salary for these rangers is US$70 per month, plus government-provided housing.[47]

Figure 7: Hectares per ranger in DRC parks in 2010



Source: IUCN PAPACO[48]

In addition to a lack of personnel, wildlife enforcement authorities face other resource constraints. For example, in Gambia, among forestry officials, only the Minister of Environment appears to have access to the internet. The CITES Management Authority does not have access to a car and has no official access to the ports. Similarly, the Environmental Protection Unit of the National Guard of Guinea-Bissau shares one vehicle with the Ministry of Agriculture. Rosewood export records are kept on paper in storage where they are nibbled by mice until they become illegible. Attempts to mark rosewood stockpiles were undone when paint purchased at the local market washed off with the first rain. And outside the capitals, the resource deprivation can be even more pronounced (Figure 8).

[47] *Based on interviews with the CITES Management Authority and a COMIFAC representative*

[48] *IUCN Program on African Protected Areas and Conservation (PAPACO), Efficiency assessment of protected areas management in DRC. Gland: IUCN, 2010.*

http://papaco.org/wp-content/uploads/2015/09/RAPPAM-RDC-impression-110629-A4.pdf

Figure 8: The regional Forest and National Guard Office, Buba, Guinea-Bissau, June 2018

Despite these limitations, several countries have managed to arrest a large number of people for wildlife trafficking. For example, Cameroon has arrested an average of 80 wildlife traffickers per year for the last five years, Republic of Congo about 72 per year since 2008, and Guinea, around 20 annually since 2012.[49] Between them, these cases have resulted in over 800 convictions, a remarkably high conviction rate. In other countries, data are lacking but it appears that Liberia convicted one trafficker in 2017 and Nigeria convicted two traffickers between 2016 and 2017. What the high-conviction Francophone countries have in common is the assistance of NGOs associated with the EAGLE network.[50] These groups provide direct supplementation of local investigation and prosecutorial capacity.

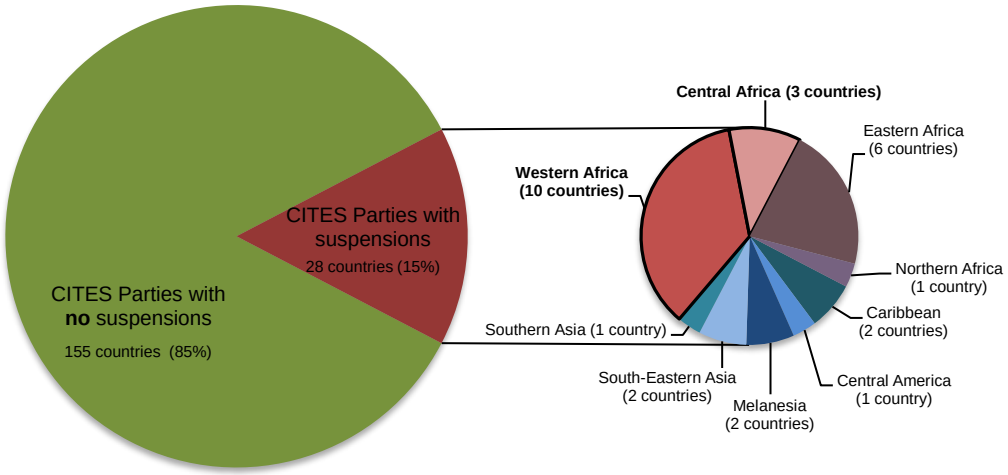
The overall capacity deficit extends to other aspects of the ability to control the wildlife trade, particularly in adherence with the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) West and Central Africa have

[49] *Based on interviews with national officials and NGOs.*

[50] *The EAGLE Network (Eco Activists for Governance and Law Enforcement) includes The Last Great Ape organization (LAGA) in Cameroon; the Projet d'Appui à l'Application de la Loi sur la Faune sauvage (PALF) in Congo Brazzaville; and the Guinée-Application de la Loi Faunique (GALF) in Guinea.*

been subject to more CITES trade suspensions than any other region in the world, comprising just under half of the countries with valid suspensions (Figure 9). Trade suspensions are issued where trade is not occurring in compliance with CITES, including where protected wildlife is being exported unsustainably, or where national laws are not adequate to meet the requirements for CITES implementation; or for failing to submit annual trade data or for failing to respond to recommendations of the Standing Committee in the context of the Review of Significant Trade.[51]

Figure 9: Number of countries with valid trade suspensions by region[52]



Only six countries (23%) in the region have been assessed by the CITES National Legislation Project[53] as having legislation that is believed generally to meet the requirements for implementation of CITES (Category 1),[54]. A further ten countries, have been assessed as having legislation that is believed generally not to meet all the requirements for the implementation of CITES (Category 2)[55]. There are ten countries

[51] *As CITES uses trade measures for its implementation, one recommendation for improving the effectiveness of the Convention is a temporary suspension of trade. Recommendations to suspend trade in specimens of CITES-listed species are made by the Conference of the Parties and the Standing Committee. A recommendation to suspend trade provides a period of time during which the relevant country can move from non-compliance to compliance by inter alia making progress in the enactment of adequate legislation, combating and reducing illegal trade, submitting missing annual reports or responding to specific recommendations of the Standing Committee concerning the implementation of Article IV of the Convention in the context of the Review of Significant Trade. Recommendations to suspend trade are withdrawn immediately upon a country's return to compliance.*

https://cites.org/eng/resources/ref/suspend.php

[52] *Benin, Cameroon, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Ghana, Guinea, Liberia, Mali, Mauritania, Niger, Senegal, and Togo. – at the time of writing this report*

[53] *https://cites.org/legislation/National_Legislation_Project*

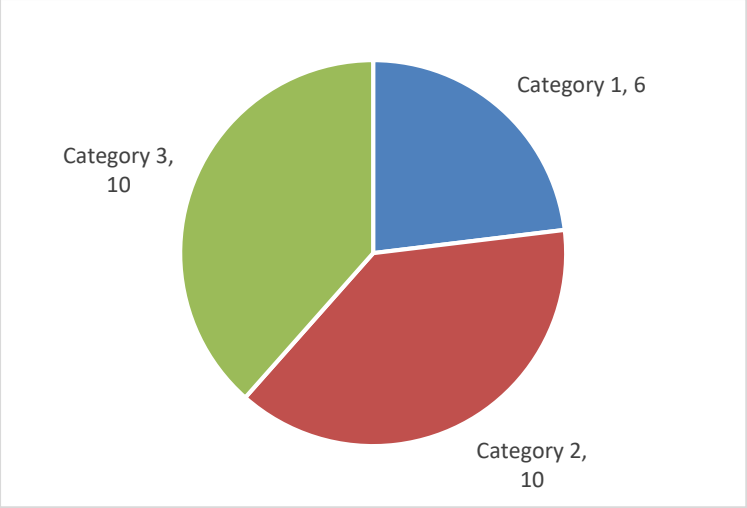
[54] *Cameroon, DRC, Equatorial Guinea, Guinea-Bissau, Nigeria, and Senegal.*

[55] *Benin, Burkina Faso, Chad, Gabon, Gambia, Guinea, Mali, Republic of Congo, St Helena, and Togo.*

in the region that have Category 3[56] legislation, which is legislation that is believed generally not to meet the requirements for the implementation of CITES, as shown in Figure 10. Therefore, 77% of countries in West and central Africa have legislation that is deficient for the implementation of CITES. In contrast, over half of all CITES parties globally are classed as having Category I legislation.

For national laws to meet the implementation of CITES, domestic measures must provide the authority to: designate at least one Management Authority and one Scientific Authority; prohibit trade in specimens in violation of the Convention; penalize such trade; and confiscate specimens illegally traded or possessed.

Figure 10: National Legislation Project ratings of CITES implementation legislation in 26 West and Central African countries



Source: CITES[57]

The region's wildlife law enforcement challenge involves two factors, which are difficult to disentangle. On the one hand, the governments of the region lack the practical resources needed to protect their wildlife populations. On the other, poverty has rendered the region extremely vulnerable to corruption. The corruption issue is mentioned briefly above and further discussed in the species case studies below.

The following chapters look at the concrete outcomes of this vulnerability through the lens of four wildlife markets: ivory, pangolin scales, rosewood, and live parrots. These four markets were selected because they appear prominently in the global seizure data and were discussed previously in the *World Wildlife Crime Report*. Elephant ivory from this region is listed on CITES Appendix I (international commercial trade is prohibited), as are the relevant species of parrots and all pangolins. The rosewood species discussed in this report is CITES Appendix II (international commercial trade is allowed

[56] *Angola, Cape Verde, CAR, Cote d'Ivoire, Ghana, Liberia, Mauritania, Niger, Sao Tome and Principe, and Sierra Leone.*

[57] *https://cites.org/legislation*

but controlled) but, as the chapter below shows, a large share of the trade in rosewood is illegal, violating CITES controls and other national legislation.

These four markets are emblematic of the overall trends in wildlife trafficking emanating from this region. Two appear to have sharply increased in recent years (rosewood and pangolins), one has declined (ivory), and the final one remains unclear (parrots). As the discussion shows, on a regional level, wildlife markets are subject to fluctuations. Some of these trends appear to be rooted in global demand (like ivory), but others are driven by displacement of supply (rosewood and pangolins). When a traditional source of a commodity for which there is strong illicit demand goes into decline, either due to growing species scarcity or effective law enforcement, traffickers look to other regions. If a suitable substitute can be found, and exploited, in regions with low enforcement capacity, like West and Central Africa, then it is likely to settle there until the species becomes too scarce to source in a cost-effective way, or enforcement effort is scaled up..

The discussion of each market proceeds under four headings, consistent with the mandate for this report:

- Trafficking routes
- Trafficking techniques
- Trends
- Priority measures

Each looks at illegal harvesting (poaching), in-country dealing (brokering) and transnational trafficking to the wholesale destination market. This model represents an over-simplification introduced for the purposes of clarity. In reality, there may be multiple levels of resale within the region before export, but these are neither consistent between commodities nor within commodities across location and across time. The point in each case, however, is to understand the particularities of each market so that sound interventions can be designed.

Ivory

The elephant population in West and Central Africa has suffered greatly due to poaching for ivory in the last ten to fifteen years, and the region has served as a trafficking hub. As of late 2018, seven countries from the region are participating in the National Ivory Action Plan (NIAP) process under CITES. Following deliberations at the 70th meeting of the CITES Standing Committee (SC70, Sochi, October 2018), these seven countries represented 41% of the 17 countries currently implementing NIAPs. The Standing Committee at SC70, inter alia, agreed overall ratings of 'limited progress' in NIAP implementation for Angola, Cameroon and the DRC, and noted concerns regarding the escalation of illegal trade in ivory and other wildlife specimens in Nigeria. The Committee was unable to assess progress with NIAP implementation in Congo, Gabon, Nigeria and Togo, due to late reporting from these.[58][59]

As discussed in the Trends section below, the extent of the poaching is clear from:

- the International Union for the Conservation of Nature Species Survival Commission (IUCN-SSC) African Elephant Specialist Group population data;
- the data from CITES Monitoring the Illegal Killing of Elephants (MIKE) program;
- the UNODC World WISE ivory seizure statistics; and,
- UNODC forensic data.

Table 2: Simplified estimates of the West and Central Africa elephant range and population, 2007 and 2016

	2006[60]	**2016**[61]	**Change**
West Africa range (km^2)	175,545	142,500	-9%
West Africa population	8,222	11,489	+40%
Central Africa range (km^2)	975,079	783,085	-20%

[58] *https://cites.org/sites/default/files/eng/com/sc/70/E-SC70-27-04-A1.pdf*

[59] *Category A – Togo – most affected by illegal trade in ivory*

Category B - Cameroon, Republic of Congo, Gabon, Nigeria – markedly affected by the legal trade in ivory

Category C – Angola, DRC - affected by illegal trade in ivory. See SC70 Document 27.4 on the National ivory action plans process; SC70 Document 27.4 on the National ivory action plans process – Addendum; SC69 Document 29.3 on the National ivory action plans process; and SC69 Document 29.3 on the National ivory action plans process – Addendum. https://www.cites.org/eng/niaps;

https://cites.org/sites/default/files/eng/com/sc/70/E-SC70-27-04-A1.pdf;

https://cites.org/sites/default/files/eng/com/sc/70/exsum/E-SC70-Sum-02-R1.pdf

[60] *These figures correspond to the sum of the "definite" and "probable" figures in the 2007 IUCN-SSC African Elephant Specialist Group, African Elephant Status Report. Gland, IUCN. They exclude the "possible" and "speculative" estimates of elephant populations, which are relatively high in Central Africa due the larger share of forest elephants in the region and the lack of recent survey data in some areas.*

[61] *These figures correspond to the "estimates" figures (without the confidence intervals) in the 2016 IUCN-SSC African Elephant Specialist Group, African Elephant Status Report. Gland, IUCN. Confidence intervals and "guesses" are not included. While these figures are likely underestimates, they are used here for comparative purposes. Due to the terrain and lack of surveys, the "guesses" for Central Africa are particularly large in proportion to the estimated population.*

Central Africa population	59,319	24,119	-27%
Combined range (km^2)	1,150,624	925,585	-20%
Combined population	67,541	35,608	-47%
Combined share of African range	34%	30%	-4%
Combined share of African population	12%	9%	-3%

Source: IUCN-SSC

It appears that between 2006 and 2016, the countries of West and Central Africa collectively lost about half their elephants, with populations declining from about 68,000 to 36,000 in 10 years (Table 2). While the countries of West Africa appear to have actually gained about 3000 elephants, this increase is more than offset by losses of about 35,000 elephants from Central African countries. While part of this change might be attributable to differences in survey methods or estimation techniques, such a large reduction in estimates is likely indicative of a real and severe decline.

Trafficking routes and techniques

The overseas "routes" taken by wildlife contraband are often arbitrary and subject to rapid change. Shipments sent by parcel post usually transit the hub airport for the carrier making the delivery, and traffickers are rarely aware of this location when dispatching the shipment. Shipments carried by couriers on commercial air flights often transit the airport where the airline hubs, but since only a limited number of carriers service many African countries, couriers have little control over the available options. While sea freight companies also have hubs, containerised shipments follow less predictable routes, and the sender is usually unaware of the itinerary when dispatching the shipment. In other words, traffickers are either unaware of the countries their contraband will transit in their transcontinental voyage or they face a limited range of options. In either case, the routing is generally not planned.

That said, the source and destination of the shipments are under the trafficker's control, as are land movements within Africa. Seizure and forensic data show that West and Central Africa is both a source region for ivory and a transit area for ivory poached from other parts of the African continent. In the early 2000s, it was also a significant destination, and ivory was widely retailed in open markets in cities like Lagos and Luanda.[62] While some retail sales of ivory in the region persist,[63] fieldwork indicates that the vast bulk of the ivory was exported in 2017.

[62] *Esmond Martin and Dan Stiles, The Ivory Markets of Africa. Nairobi and London, Save the Elephants, March 2000.*

[63] *This can be seen in the number of worked ivory items that have been intercepted leaving Africa. Nigeria has also been identified as the world's largest national source of worked ivory seized between 2011 and 2016, accounting for 51 seizures, collectively*

Field interviews in the region and continentally have revealed substantial consensus about the way the illicit ivory market operates.[64] As in other parts of Africa, both organized and opportunistic poaching occur. Both feed into smuggling groups that would fit the United Nations definition of transnational organized crime, assuming the crimes were punishable by four or more years in prison in the relevant jurisdictions.[65] The illicit ivory supply may also involve diversion of official stocks derived from natural mortality and problem animal control, but this chapter will focus on those derived from poaching.

Overall, 94% of the elephant population in the region is found in Francophone countries.[66] In these countries, the organizer of an elephant hunt is often referred to as the *commanditaire*. The *commanditaire* provides the finance, assembles the team, and manages the logistics of the hunt. Self-employed hunters who own a suitable rifle may organize their own hunts.

Elephant hunting parties tend to be larger than those involved in poaching other forms of wildlife, often making use of teams of more than five people, because hunts can last a week or more and porters are required. Most involve at least one designated shooter, who is armed with the kind of specialised rifle needed to bring down an elephant (usually one chambering a .458 or larger round). Ammunition for these rifles is expensive, and skilled shooters are in high demand. In the eastern part of Central Africa, artisanal shotguns (the so-called "12 calibre") or military weapons (mostly AK-47 variants) may also be used. A team is built around this core member, often making use of relatives or other close associates. Depending on the area, a local guide may be required. Ideally, the hunt should last for a week and result in the taking of one or two bull elephants. Longer hunts provide logistic challenges and quickly become unprofitable.

Self-employed hunters sell the ivory they acquire by weight, whereas those groups organized by a *commanditaire* are generally paid a flat cash rate for the tusks, with the possibility of a bonus to the shooter in case of an unusually large take. Often underappreciated is the importance of elephant meat as object of the hunt. In some arrangements, the *commanditaire* receives the ivory and the poaching team is paid entirely in meat. Elephant meat can command up to five times the price of beef, so its value per animal can exceed the local value of the ivory. The meat is more important in Central Africa than in Western Africa, and elephant meat is generally regarded as *makruh* (to be avoided) under Islamic dietary law, so has limited sale value in predominantly Muslim countries. Where circumstances allow, the meat is smoked on site before being transported to local wild meat markets, with the amount taken varying greatly depending on factors like enforcement pressure, carrying capacity, and local demand. Carriage of both tusks and meat increases the importance of porters. Other

weighing close to one metric ton. Worked ivory has also been seized departing Cote d'Ivoire (20 seizures weighing 721 kg in that timeframe), Angola, and DRC.

https://cites.org/sites/default/files/eng/com/sc/69/E-SC69-51-01-A.pdf

[64] *The balance of this chapter is based on fieldwork conducted in seven countries in the second half of 2018, as well as two statistical models prepared by outside consultants. For full details, see the on-line Methodological Annex to this report.*

[65] *Under the United Nations Convention against Transnational Organized Crime (A/RES/55/25), Article 2 (a) and (b), an organized criminal group is defined as "a structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offences established in accordance with this Convention, in order to obtain, directly or indirectly, a financial or other material benefit". "Serious crime" is defined as "conduct constituting an offence punishable by a maximum deprivation of liberty of at least four years or a more serious penalty". In most of the markets relevant to this flow, smuggling of ivory is punishable by four or more years in prison.*

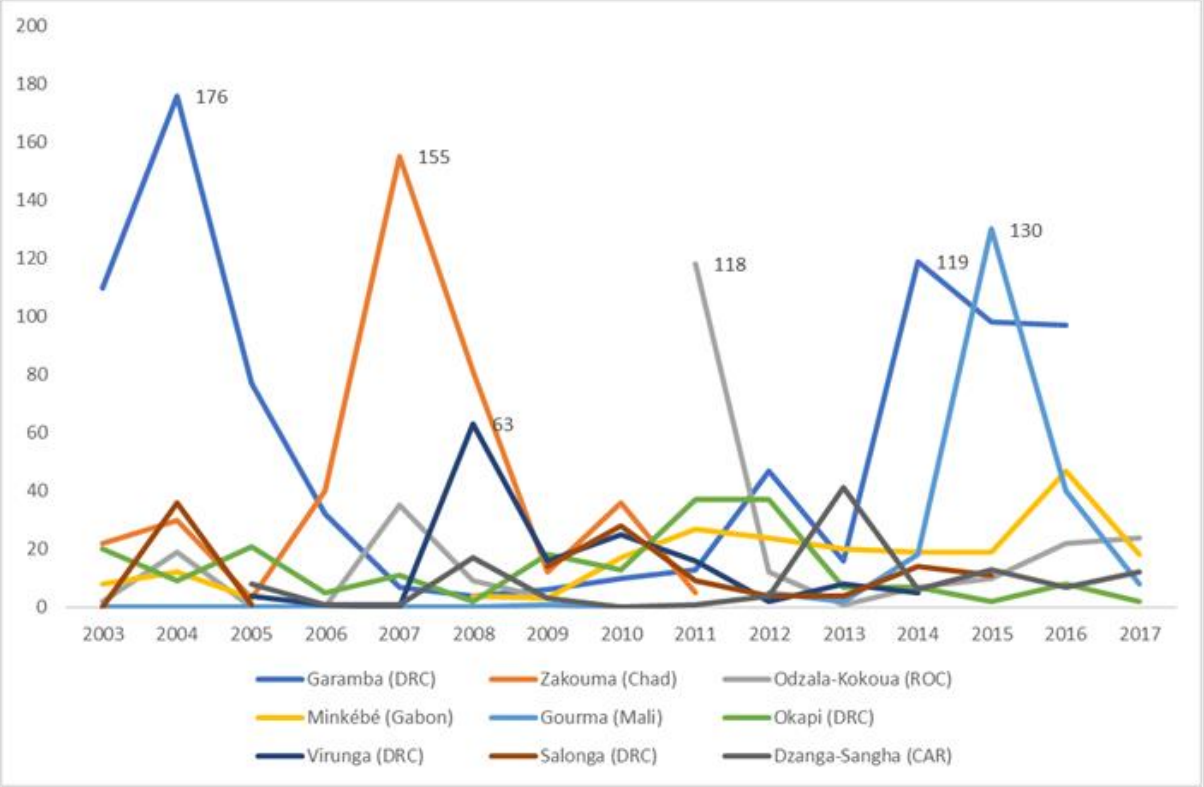
[66] *Elaborated from estimates from IUCN 2016 op cit.*

parts of the elephant may be taken as trophies, such as the tail and circular ear segments.

Where elephants are poached opportunistically, the ivory may be sold to middlemen based in the rural areas, generally people of sufficient wealth to make the purchase and with access to the transportation services necessary to transport the ivory to urban centres. In areas being logged, the tusks may be concealed in timber loads. Once in a major city, the *commanditaire* or middle-man sells to higher-level buyers, who may be exporters.

The detections of illegally killed elephants at MIKE sentinal sites suggest that reserves may be targeted for intensive poaching before either enforcement or elephant scarcity displaces poaching to another site. In 2004, 176 illegally killed elephants were reported from Garamba in the DRC. In 2007, 155 were reported from Zakouma in Chad. In 2008, there were 63 found in Virunga in the DRC. In 2012, it was 118 found in Odzala in the Congo Republic. In 2014, it was Garamba again, with 119 illegally killed. And in 2015, there were 130 reported from Gourma in Mali. Although MIKE site monitoring is not comprehensive by any means, no site in the region has reported detections of more than 50 elephant carcasses for more than three years running, and few remain in the top spot for long.

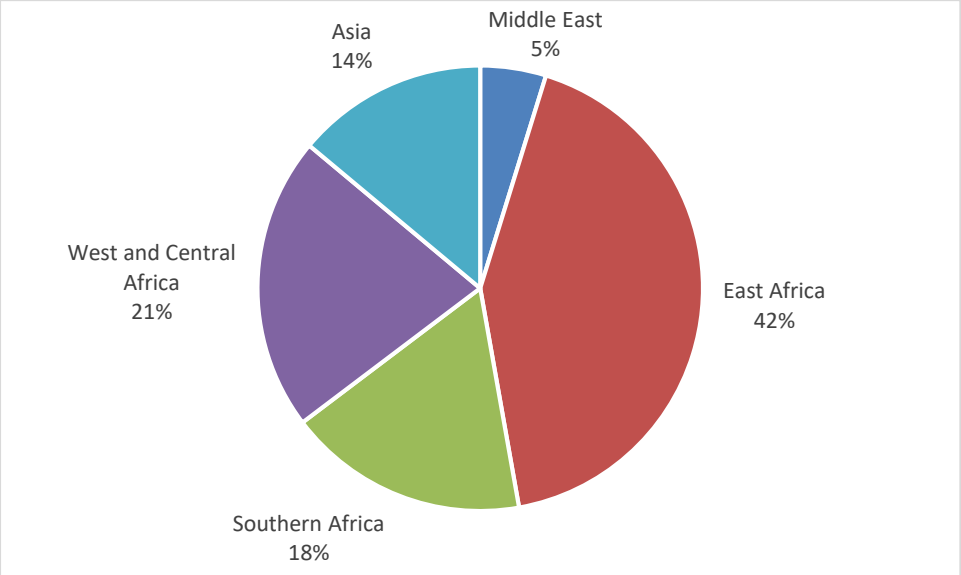
Figure 11: Number of illegally killed elephants detected at MIKE sentinal sites, 2003-2017



Looking at data from World WISE, all of the largest consignments of tusks have been found in shipping containers, although air-freight has also been used. Taking the 50 largest seizures where the origin was specified in World WISE, all over 200 kg in weight, 21% departed West and Central Africa, with Nigeria and Togo accounting for the bulk of

the exports. Nigeria has been identified as part of the illegal trade chain in seizures of 5,629 kg ivory in the period 2009-2011, to approximately 11,769 kg ivory in the period 2012-2014, and to approximately 12,211 kg ivory in the period 2015-2017.[67]

Figure 12: Share of the weight of the 50 largest (200+kg) ivory seizures by origin, 2008-2013



Source: World WISE

In addition to export from West Africa, both field research and seizure data indicate ivory sourced in West and Central Africa may be trafficked from Central and Eastern Africa. Ivory from Central Africa may be trafficked via Sudan and Uganda. Ugandan exports may be channeled by air from Entebbe or by land to Mombasa, Kenya.

The role of the region as a transit area has been highlighted by the results of forensic tests. During the peak of the poaching, DNA testing of a number of ivory seizures made around the world indicated two major sources for illicit ivory in Africa.[68] One was in Eastern Africa,[69]and the second was in Central Africa: the so-called TRIDOM (Tri-border Dja-Odzala-Minkébé) region, where Gabon, Cameroon, and Republic of Congo meet. These three countries contain more than half of the elephants residing in the region.[70] Population surveys of reserves in that general area (Northern Congo, Northern Gabon, Southern Cameroon) have suggested devastating losses in the past decade (Figure 13).[71] Some other parts of these three countries experienced even more dramatic reductions in the estimated number of elephants. [72]

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[67] *https://cites.org/sites/default/files/eng/com/sc/70/E-SC70-27-04-A1.pdf*

[68] *S. K. Wasser, L. Brown, C. Mailand, S. Mondol, W. Clark, C. Laurie, B. S. Weir, 'Genetic assignment of large seizures of elephant ivory reveals Africa's major poaching hotspots'. Science, 03 Jul 2015, pp. 84-87.*

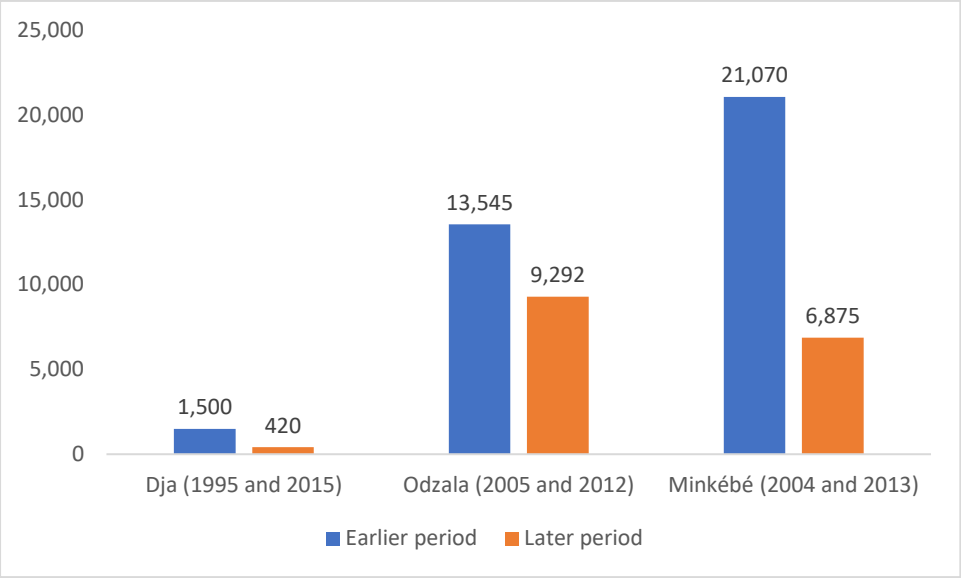
[69] *In the Ruaha and Selous reserves in southern Tanzania and the Niassa reserve of northern Mozambique.*

[70] *IUCN-SSC 2016, op cit.*

[71] *Areas affected include the Minkébé National Park in Gabon, the Mengame Wildlife Sanctuary, the Abong-Mbang Forest Reserve, Bénoué National Park, Bouba Ndjidah National Park, Faro National Park, and the Yoko area in Cameroon.*

[72] *Using Cameroon as an example, the Mengame Wildlife Sanctuary was estimated in 2003 to have more than 1000 elephants; the 2011 revision was 10. In addition, poaching around 2012 appears to have virtually wiped out the savanna elephant populations*

Figure 13: Estimated elephant population in the TRIDOM area, various years



Source: IUCN

Most of the ivory that has been positively traced back to the region by DNA testing was seized between late 2012 and early 2014, some of it in loads that also contained ivory of Eastern African origin (Table).[73]

Table 3: Results of DNA testing of major seizures linked to West and Central Africa[74]

Date of seizure	Weight (metric tonnes)	Exported from	Seized by	DNA origin
December 2012	6 metric tons (2300 whole or cut tusks)	Togo	Malaysia	40% originated in the TRIDOM area, Dzanga-Sanga in CAR, and parts of West Africa
December 2012	1148 tusks	Kenya and Tanzania	Hong Kong SAR	100% TRIDOM
7 August 2013	2 metric tons	Nigeria	Hong Kong SAR	TRIDOM plus other Central Africa

of northern Cameroon. Reserves that had previously held elephants with a zero population estimate in 2016 include Abong-Mbang Forest Reserve, Bénoué National Park, Bouba Ndjidah National Park, Faro National Park, and the Yoko area. See IUCN 2007 and IUCN 2016.

[73] *Based on DNA research conducted by Dr Sam Wasser for UNODC.*

[74] *Ibid.*

9 August 2013	69 tusks	Togo	Togo	West Africa and others
22 and 29 January 2014	4 metric tons	Togo	Togo (headed for Viet Nam)	TRIDOM, Dzanga Sanga, and other Central Africa
1 January 2017	847 kg	DRC	Malaysia	DRC and Congo Republic

Source: UNODC

West and Central Africa is not only a region of origin for poached ivory, but also a transit area for ivory poached in other parts of the continent, because ivory exported from West Africa was proven by DNA analyses to have come from other regions. For example, some of the ivory exported from Togo originated from as far away as northern Mozambique. In addition, ivory from elephants poached in Eastern Africa (e.g. at the Selous, Niassa, and Ruaha reserves) has also crossed into the Central Africa (the Eastern DRC) on its way to Burundi or Uganda, ultimately to be exported from Mombasa, Kenya.[75] This inefficient trafficking route has been explained in field interviews as being tied to the nationality of the main traffickers on this route, who are Burundian.

The poachers are most often local people. Hunting, including big game hunting, is a skill found among the rural peoples of the region, so there is little need to import this workforce. People residing in the forest areas may act as guides for shooters recruited at a national level. Porters and other help can be accessed cheaply from the local labour supply. Based on interviews with the poachers themselves as well as enforcement officials, the national middle-men are often successful businesspeople, military officials, or others in positions of authority. The same sources indicate that exporters are most often Asian nationals from the destination countries who reside in the region.

Thus, the illicit ivory market is reliant on the social connections between three distinct social groupings: those who make their living from the land, the wealthy or powerful who can assure unimpeded transport of the ivory from the rural areas to the ports of export, and the Asian expatriates who have the connections to direct the contraband to its final destination. The brokers between the poachers and the exporters are often people who, by virtue of their position, are unlikely to be questioned by law enforcement. Particularly in unstable areas, these may be people with connections to the military.

For example, there is a group of about 200 poachers located in the southwest of Sudan who have a long tradition of hunting elephants, and organize a large-scale cross border hunts annually into the CAR during the dry season.[76] They tend to operate in groups of 15-20 and are armed with AK-47s and axes, easily overwhelming any local resistance.

[75] *Ibid.*

[76] *See the reports of United Nations Panel of Experts on the Central African Republic (S/2014/452, paras. 71–75; S/2015/936, paras. 109–112, and S/2016/1032, paras. 185–188).*

These poachers are largely responsible for the decimation of the elephant population in Eastern CAR, where they are widely feared and known for waylaying rival hunters and other civilians. [77] This group may also have been responsible for the massacre of elephants in Bouba Ndjida (Cameroon) in January to April 2012, and mass killing of the elephants in Zakouma (Chad) from as early as 2002. They have also been active in the northern DRC. They are alleged to be associated with powerful warlords in their home area, with links to the military and the Sudanese state.[78]

Elephants in this general area (from southern Sudan though CAR to northern DRC) have also been threatened by nomadic Fula herdsmen known locally as "Mbororo". These armed herders burn a grazing path for their cattle through the bush, and hunt to support their livelihoods. They have been known to cooperate with the Sudanese poachers discussed above, selling ivory and other goods to them.[79] Their cross-border transhumance from Sudan to northern DRC allow them to transport ivory to exporting countries such as Sudan. Acccording to local observers, a recent international vaccination campaign against bovine sleeping sickness (nagana) has allowed transnational herdsmen from the north to travel further south than ever before.

Aside from UNODC fieldwork, the United Nations Panel of Experts on the DRC, which monitors violations of the sanctions regime in that country, has investigated the role of ivory as a source of insurgent finance. They identified several rebel groups involved in elephant poaching in various reserves, alongside or in cooperation with elements of national militaries.[80] Interviews with poachers in the northern DRC indicate that trafficking ivory in that part of the world is impossible without the cooperation of the military, due to the ubiquity of road blocks and checkpoints. In addition to this passive participation, the Garamba reserve, which has the largest known concentration of elephants in the eastern part of Central Africa, has been subject to poaching by both illegal and authorised armed forces in the area.

For example, in March 2012, 22 elephants were shot in the tops of their heads with AK-47 rifles, apparently from the air. On 6 April, the park authorities were conducting an aerial survey and encountered a helicopter, which fled the area. On 10 April, they again spotted and photographed the same helicopter, flying low over the park. The helicopter was identified to be part of the Ugandan People's Defence Force contingent assigned to counteract the LRA and based in Nzara, South Sudan. After this encounter was reported, no known cases of aerial killing of elephants have occurred in the park.[81] Similarly, South Sudanese military uniforms have been seized by rangers after shoot outs with poachers,[82] and the *Forces Armées de la République Démocratique du Congo* of the DRC are perenially listed among the top poaching groups.[83]

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[77] *Theodore Leggett and João Salgueiro, 'The motivations of elephant poachers in the Central African Republic'. Forum on Crime and Society, forthcoming.*

[78] *Clashes with poachers in Garamba have yielded rifles and equipment of apparent Sudanese origin. Escaped former members of The Lord's Resistance Army also reported selling ivory to armed mounted Arabs in the Sudan, some wearing military uniforms. S/2016/466, paragraphs 177 and 174.*

[79] *Based on interviews with self-confessed elephant poachers, rangers, and communities in the region. See Leggett and Salgueiro forthcoming op cit.*

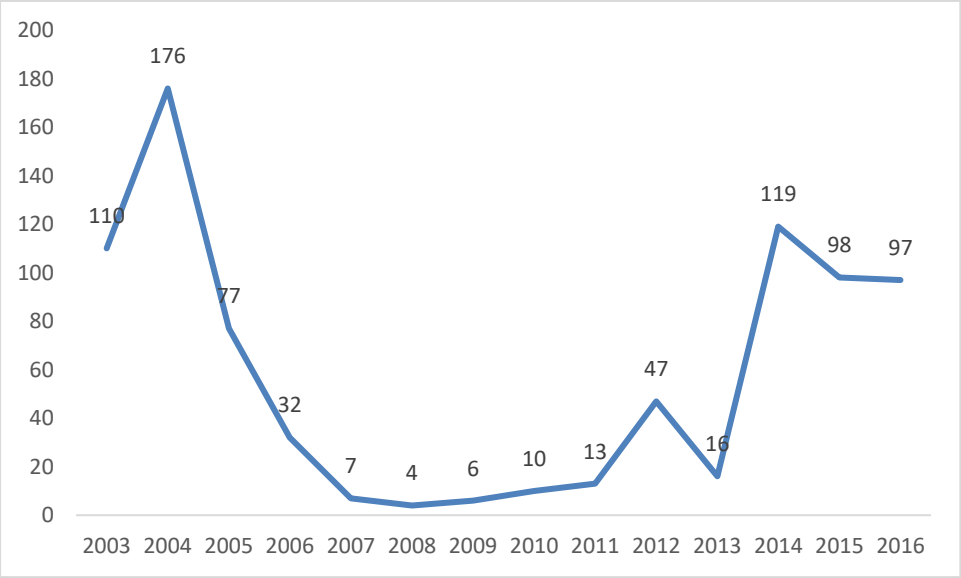
[80] *See S/2014/42; S/2015/19; and S/2016/466.*

[81] *S/2014/42, Annex 102*

[82] *S/2014/42, paragraph 231, with photographs in Annex 100.*

[83] *Ibid, paragraph 228; S/2015/19, paragraph 218.*

Figure 14: Number of illegally killed elephants detected in Garamba, 2003-2016

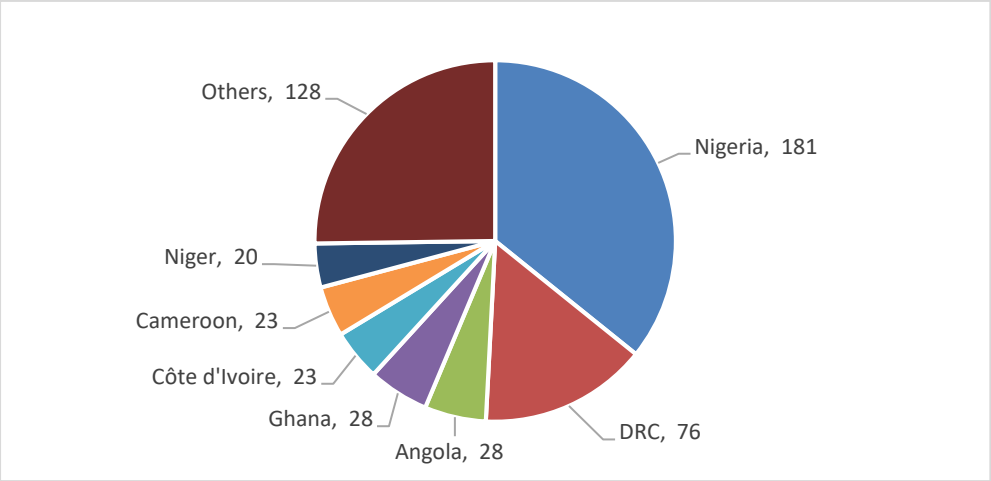


Source: CITES MIKE

As suggested above, Nigeria is one of the key exporting countries, and, based on interviews with enforcement officials in several countries, Nigerian nationals are involved throughout the region in sourcing ivory and transporting it home for export. The overrepresentation of Nigerians in the international trafficking for both ivory and many of the other commodities discussed in this report should not be surprising. Since 36% of the residents of West and Central Africa are Nigerians,[84] it makes sense that at least one third of any group you could name would be Nigerian nationals (Figure 15). In addition, Nigeria is home to some of the largest ports in the region, responsible for over one-fifth of the regional container port volume (Figure 16). Thus, one would expect that around one-fifth of commercial exports from the region would pass through Nigeria.

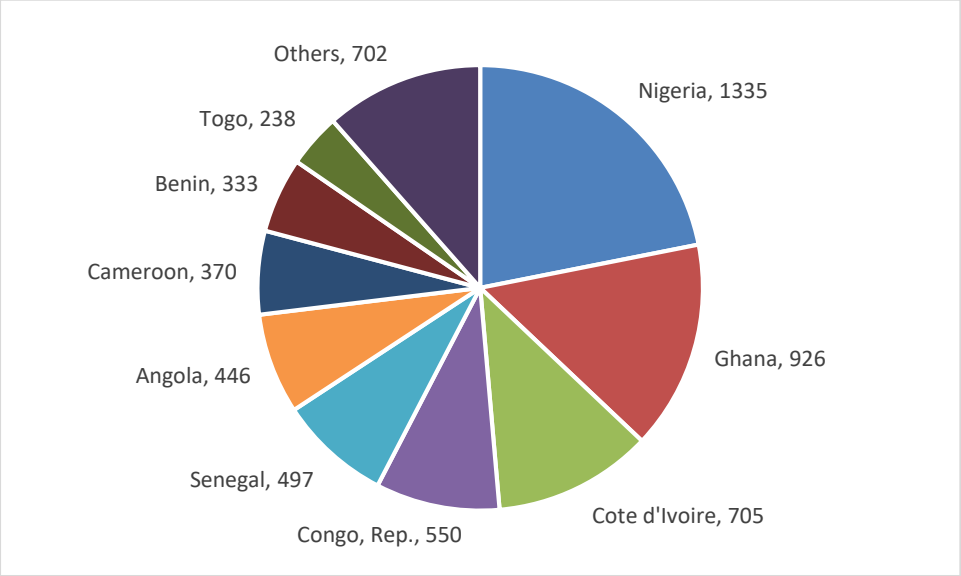
[84] *According to the United Nations Population Division, in 2015 there were over 181 million Nigerians, compared to 355 million people in West Africa and 154 million people in Middle Africa. United Nations, Department of Economic and Social Affairs, Population Division (2017). World Population Prospects: The 2017 Revision, custom data acquired via website.*

Figure 15: Population of West and Central Africa in 2015 (millions)



Source: United Nations Population Division

Figure 16: Container port traffic in West and Central Africa in 2016 (thousands of 20-foot equivalent units)



Source: World Bank

Nigerian nationals are less commonly responsible for large-scale export from Africa. This role generally falls to nationals of the destination countries, who are found in major cities across West and Central Africa. Based on interviews with enforcement officials, it appears that Chinese nationals are most prominent international traffickers, and are particularly well represented in Lagos (Nigeria). They are also found in Kinshasa (DRC), Pointe Noire (Republic of Congo), Libreville (Gabon), and Douala (Cameroon). Members of a regional trafficking group formerly based in East Africa have allegedly relocated to West Africa, due to enforcement action. Vietnamese traffickers are also reportedly found in the region, including in Lome (Togo) and Abidjan (Cote d'Ivoire). As discussed in the following chapter, some of these ivory traffickers have recently become

involved in the trafficking of pangolin scales as well, particularly in the DRC and Cameroon. West Africans have also been arrested for ivory trafficking in other parts of Africa. For example, according to World WISE, several of the largest ivory seizures in Uganda have implicated Nigerian nationals.

Some past exports from Togo were tied to a Lome shopkeeper and notorious trafficker, Emile Edouwodzi N'bouke. On 6 August 2013, N'Bouke was arrested in possession of some 700 kilograms of worked and raw ivory, including 60 whole tusks. His shop, *Rose Ivoire* (previously *Pointe Ivoire*), sold a wide range of art and curios, including items of ebony, gold, malachite, and amber, as well as wildlife products such as crocodile skins, leopard skins, and ivory. His sales registry and cell phone records show a long history of selling ivory to buyers all over the world, including one sale of 400 kg of ivory sold for nearly US$80,000. While tusks and raw ivory comprised only 5% of his sales, they accounted for 86% of his income.[85]

Under interrogation, N'Bouke discussed official corruption, suggesting that he had paid bribes on many occasions in the past to remain in business. His cell phone contacts included a Minister, the President of the Supreme Court and a judge. He said that Chinese people were his primary ivory clients, and his sales records appear to confirm this observation. He claimed to source his ivory from southern Chad, but DNA analysis later revealed them to be forest elephant tusks from a wide range of locations in West and Central Africa. He reported working with Guineans who source and transport ivory in containers declared as timber.[86]

Trends

Across the continent, it appears that the latest wave of unsustainable elephant poaching began around 2007, based on the share of detected elephant carcasses that had been poached[87] and estimated total seizure data.[88] The regional trend appears to be similar. An additional factor may be loss of range, as this also declined by about 20% during this time period (Table). Across the continent, poaching, as expressed in the PIKE, appears to have peaked around 2011 and declined since this time, and the region roughly follows this trend (Figure 17).[89] Estimated total ivory seizures as reported to ETIS also follow this pattern (Figure 18).

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[85] *Analysis of records provided by Ofir Drori, EAGLE Network*

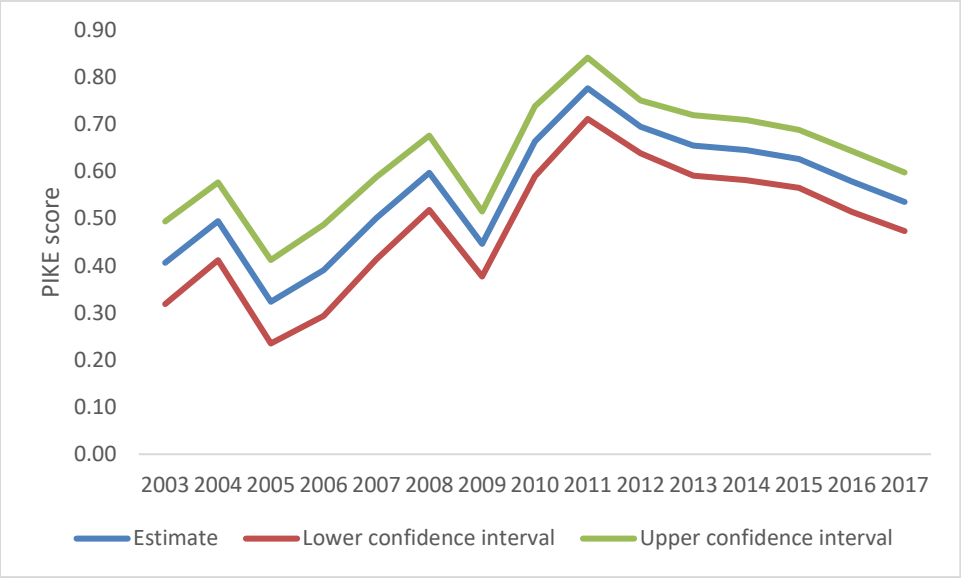
[86] *Ibid.*

[87] *The Proportion of Illegally Killed Elephants (PIKE) is gathered by the CITES MIKE program at participating sentinel sites across the region.*

[88] *Based on the seizures reported to the CITES Elephant Trade Information System, maintained by TRAFFIC.*

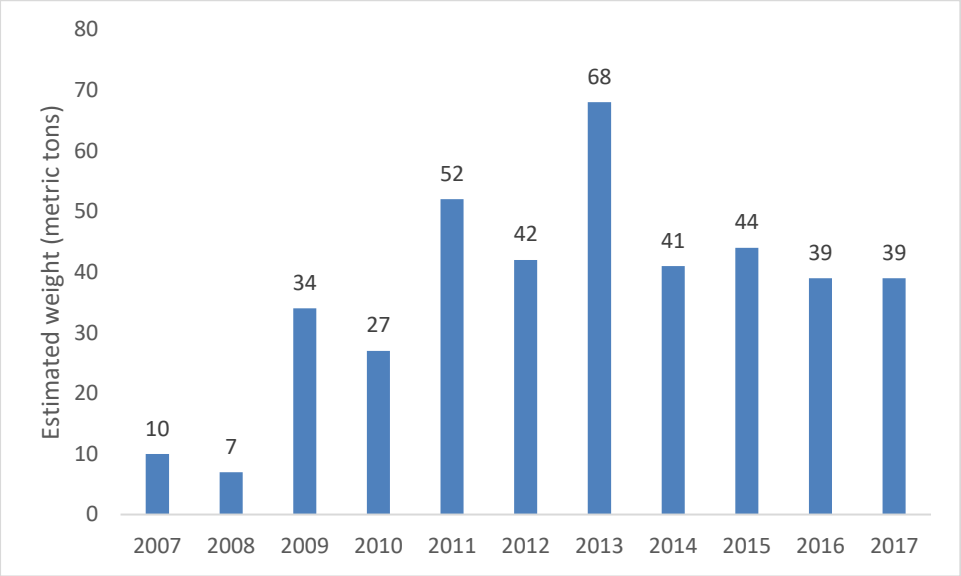
[89] *In Central Africa, based on data from 14 sites in six countries (about one-fifth of all MIKE sites), the PIKE score was 0.45 in 2005, peaked at 0.88 in 2011, and declined to 0.78 in 2017. Applying the PIKE score in Central Africa may be problematic, however. The methodology assumes that elephants that die of natural causes are as likely to be detected as those that are illegally killed. But both poachers and rangers are more likely to detect forest elephants when they are close to roads or populated areas, rather than in the deep forest. As a result, a larger share of elephants dying of natural causes in remote areas may remain undetected. Due to smaller populations and carcass counts, as well as inconsistent reporting, West Africa does not show any trend. In 2006, for example, only four carcasses between two sites were reported, none of which were illegally killed.*

Figure 17: Percentage of Elephants Illegally Killed (PIKE) score, Africa, 2003-2017



Source: CITES MIKE

Figure 18: Estimated rounded weight of ivory seizure cases reported to ETIS globally, 2007 – 2017



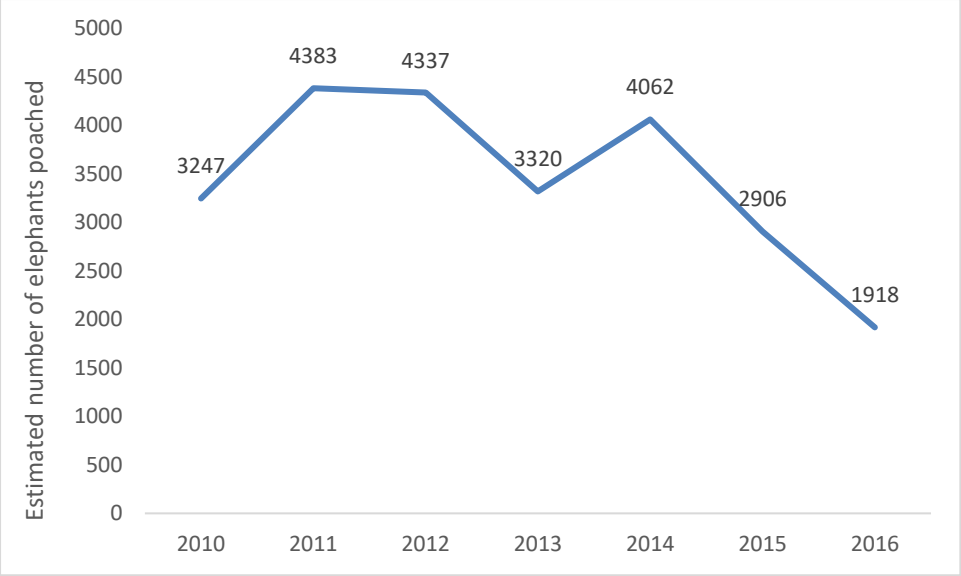
Source: CITES ETIS[90]

If, as is assumed by the MIKE programme, elephants dying of natural causes and elephants poached are equally likely to be detected, it is possible to use the PIKE scores, estimates of natural mortality, and population figures to estimate the actual number of elephants poached. Crudely put, if the number of elephants expected to die of natural causes is compared to the number of carcasses actually detected that died of

[90] *CITES Standing Committee document SC70 Doc. 49.1, Annex 1*

natural causes, we can calculate the share of all dead elephants detected.[91] This share can then be applied to the number of poached carcasses detected to estimate the actual number of poached animals. This approach has been applied in the past to generate poaching estimates between 2010 and 2012,[92] and was extended to 2016 using updated population and PIKE data. The results for Central Africa are displayed in the graph below (Figure 19). Due to smaller elephant populations and due to inconsistent reporting, a similar calculation was not possible for West Africa. While 1918 may not sound like a lot of elephants in absolute terms, if the known population of Central Africa is on the order of 24,000 elephants,[93] this still represents a loss of about 8%, which exceeds normal population growth, and thus is unsustainable.

Figure 19: Estimated number of elephants poached in Central Africa, 2010-2016



Recent UNODC research in Eastern, Southern, and Central Africa has documented a continent-wide decline in ivory prices from 2011 to 2018. This parallel ivory market research conducted in Asia, where similar price declines have been noted between 2014 and 2018. Based on field surveys in Cameroon, the DRC, and Gabon, countries with some of the highest elephant losses in recent years, poachers were paid about US$40 per kg in 2018, compared to prices three times as high just four years ago.

Thus, while the reasons remain unclear, all indications are that the global market for illicit ivory has been in decline since at least 2013:

- Based on MIKE data, every year since 2011, a smaller share of detected elephant carcasses have been illegally killed than the previous year across Africa;

[91] *See on-line Methodological Annex for the details of how this calculation was actually done.*

[92] *George Wittemyer, Joseph M. Northrup, Julian Blanc, Iain Douglas-Hamilton, Patrick Omondi, Kenneth P. Burnham, 'Ivory poaching drives decline in African elephants'. Proceedings of the National Academy of Sciences, Vol 111, No 36, 2014.*

[93] *IUCN SSN 2016, op cit.*

- Based on ETIS data, the number of reported ivory seizures has been trending downward since 2011, and the estimated volume of these seizures has been trending downward since 2013;
- Based on UNODC fieldwork, prices paid to poachers across the continent declined from an average of about US$180 per kilogram in 2011-2013 to an average of approximately US$50 per kilogram in 2018,[94] with prices paid to other intermediaries in Africa declining comensurably;
- Data from Asian markets are sparse, but also indicate a dramatic decrease in the price of ivory in recent years.

If fewer elephants are being poached and if prices are declining, this suggests a real decline in demand.

With regard to West and Central Africa in particular, fewer data are available, but those that do exist support the global trend. It may be that fewer elephants are being poached because there are fewer elephants accessible for poaching, but the illicit market for ivory appears to be in decline.

Priority measures

To further reduce the illicit trade, recent research has suggested that a relatively small number of brokers and exporters may be responsible for a large share of the market. DNA analysis has found ivory from the same elephants in different major seizures, associating contraband shipments that previously could not have been connected.[95] International cooperation is needed to support West and Central African states in identifying, investigating, arresting, and prosecuting these brokers.

If demand for illegal ivory is indeed dropping, this is good news, but it does not mean that elephants are safe from illegal killing. Those interested in protecting African elephant populations need to look beyond the illicit ivory market. Interviews with poachers reveal a variety of reasons for shooting elephants. Elephants are a hazard to local people and the source of highly prized meat. Interviews with elephant hunters in the region suggest they may be motivated more by a sense of identity and tradition than raw need, and may continue hunting even when the chances of success are small. To address these dynamics, communities abutting elephant range must be enlisted in their protection.

Adiditonal priority measures are detailed in the section “Priority measures to address wildlife crime in West and Central Africa” at the end of the report, which consider the whole of the region and take holistic approach.

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[94] *These prices were based on multiple interviews, including poacher and trader interviews, in six countries, and show very sharp declines even in the course of the last year. Given this volatility, application of dated price information is inappropriate in African ivory markets.*

[95] *See Samuel K. Wasser, Amy Torkelson, Misa Winters, Yves Horeaux, Sean Tucker, Moses Y. Otiende, Frankie A.T. Sitam, John Buckleton and Bruce S. Weir, ‘Combating transnational organized crime by linking multiple large ivory seizures to the same dealer’. Science Advances, Vol 4, No 9, 19 Sep 2018. Also see EIA, The Shiudong Connection, London: EIA, July 2017.*

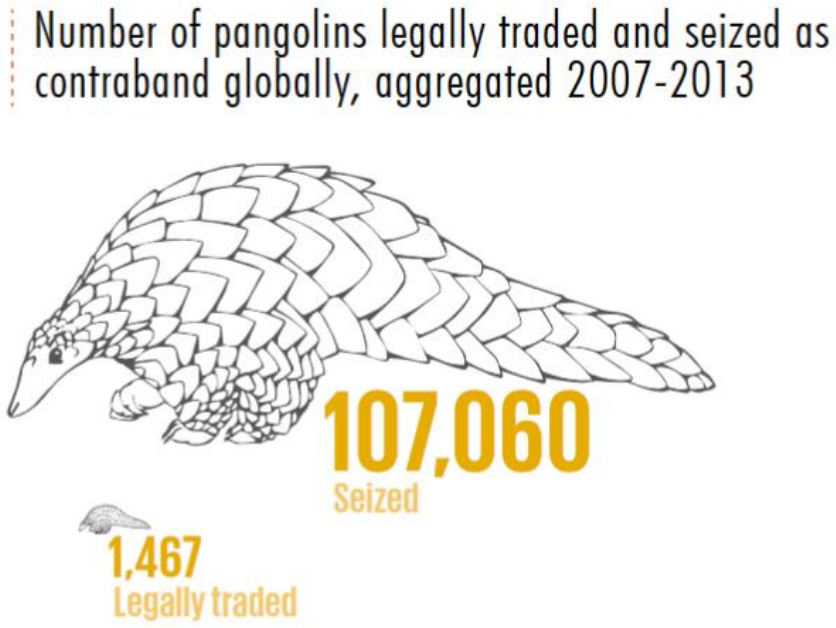
Pangolin

Until recently relatively unknown outside of conservation circles, pangolins have acquired international attention due to a series of remarkable seizures of smuggled pangolins, with single loads involving thousands of animals. Large shipments of whole pangolins have been seized in Asia, but the largest recent seizures have involved pangolin scales exported from Africa. According to IUCN, illegal trade in pangolin scales involved an estimated 92,000 pangolins between 1999 and 2017, which is about half the total illicit trade in pangolin products during this time period. Since 2008, most of this trade involved flows from West and Central Africa.[96]

Three of the four African species of pangolins are found in West and Central Africa, all of which are found on Appendix I:[97]

1. *Manis tetradactyla* (black-bellied or long-tailed pangolin);
2. *Manis tricuspis* (white-bellied pangolin);
3. *Manis gigantea* (giant ground pangolin).

As noted in the 2016 *World Wildlife Crime Report*, very little legal commercial trade of CITES-listed pangolin species has occurred in recent years, while the illegal trade is occurring at significant levels. Interviews conducted across the continent indicate some wildlife traffickers have shifted their attention from ivory to pangolins.



[96] *https://cites.org/sites/default/files/eng/com/sc/69/E-SC69-57-A.pdf*

[97] *The fourth species, Manis temminckii is found primarily in Eastern and Southern Africa, with some possible range in CAR and Niger.*

Source: World Wildlife Crime Report 2016

Traditional consumption of pangolins, both for their meat and for their scales, has been documented in many parts of the region, particularly West Africa.[98] Interviews conducted for this report indicated that pangolin consumption is a matter of highly localised traditions; communities that ate pangolins and those that did not were found in close proximity, and many poachers had never eaten pangolin meat. Some of those who consumed pangolins reported throwing the scales away before recent demand gave them value.

Despite the four African Pangolin species being CITES listed on Appendix III in 1976, transferred to Appendix II in 1995, and later placed on Appendix I in 2017, export of African pangolin species while on Appendices III and II was not common until recently. Legal commercial trade from the region between 1984 and 2016[99] was dominated by live exports from Togo and, between 2014 and 2016, scale exports from Uganda, the DRC, and Congo-Brazzaville.[100] No legal pangolin meat exports have been reported, and only one seizure is found in the World WISE seizure records. Overall legal trade volumes involved were not large – less than 15 metric tonnes in more than 30 years – and, as shown below (Figure 20), pales next to the illegal trade volumes detected in the last decade (Figure 21).

[98] *See, for example, Durojaye Soewu and Olufemi Sodeinde, Utilization of pangolins in Africa: Fuelling factors, diversity of uses and sustainability, International Journal of Biodiversity and Conservation, Vol 7, No 1, 2015; Durojaye Soewu and Ibukun Ayodele, 'Utilisation of Pangolin (Manis sps) in traditional Yorubic medicine in Ijebu province, Ogun State, Nigeria'. Journal of Ethnobiology and Ethnomedicine, Vol 5, No 39, 2009; Maxwell Boakye, Darren Pietersen, Antoinette Kotzé, Desiré Dalton and Raymond Jansen, Ethnomedicinal use of African pangolins by traditional medical practitioners in Sierra Leone; Maxwell Boakye, Darren Pietersen, Antoinette Kotzé, Desiré Dalton and Raymond Jansen, 'Knowledge and Uses of African Pangolins as a Source of Traditional Medicine in Ghana'. PLoS ONE Vol 10, No 1, 2015.*

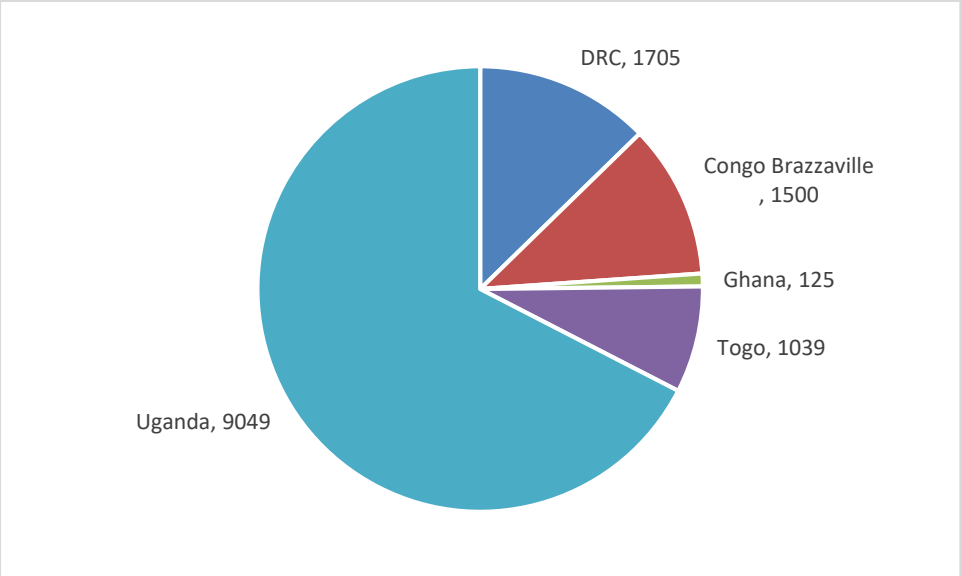
[99] *On 2 January 2017, all African pangolin species were included in Appendix I of CITES, effectively ending legal international commercial trade. CITES CoP17 Props 8-12; CITES Notification to the Parties No. 2016/063.*

[100] *According to the CITES Trade Database.*

https://trade.cites.org/

Pangolin meat remains popular in parts of Asia, and large seizures of whole Asian pangolins have been made in Asia, according to World WISE, but there have been very few international seizures of African pangolin meat, with one exception being the seizure of three MT from Nigeria by China in 2012. The reasons for this remain unclear.

Figure 20: Kilograms of legal pangolin exports 1984-2016 (scale equivalents)



Source: CITES Trade database

The domestic protections accorded pangolins vary between countries. In some, pangolins are given the highest levels of protection, with total prohibitions on harvesting; in others, species of pangolins can be collected with a permit. Since 2017, international commercial trade has been banned by CITES Parties.[101]

Since the destination for illicit pangolin specimen shipments is generally Asia (see Figure 23 below), the simplest explanation for increased illegal trade is one that conservationists forewarned:[102] that as Asiatic pangolin species are decimated by overharvesting, African species are being exploited to satisfy the resultant supply gap. It is difficult to discern whether total demand has increased or whether illicit pangolin shipments from Africa are simply detected at a higher rate than those of Asian origin. In either case, the magnitude of the seizures suggests alarming rates of harvesting, with single seizures representing thousands or even tens of thousands of animals, each of which was captured individually.

It is possible that some of this supply comes from stockpiles. According to CITES surveys, 12 Parties reported possessing stockpiles of scales in 2017, including three from the region: Cameroon (1794 kg), Liberia (50 kg), and Togo (221 kg). Uganda claims stockpiles of African pangolin scales amounting to six metric tons. Pangolins are being kept in captivity in Côte d'Ivoire, which could be a source of scales, but no commercial breeding is reported. In other parts of Africa, a pangolin farming permit has been issued in Uganda, one known pangolin farm exists in Mozambique, and it is possible that farming occurs in Sudan.[103] None of these official stocks could account for the volumes of seizures seen. In fact, the largest declared stockpile of African pangolin scales, the six tons in Uganda, is smaller than many of the largest seizures made. It is possible

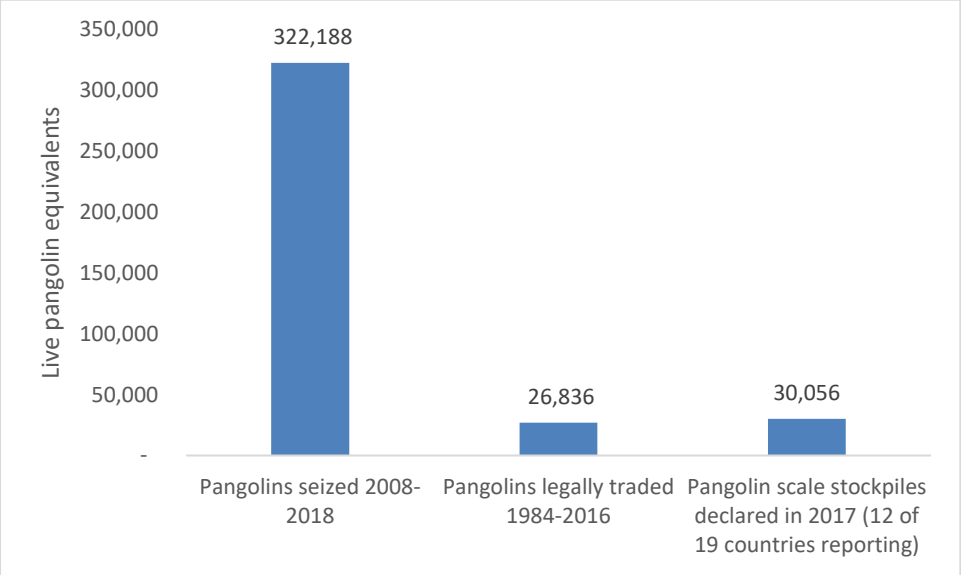
[101] *https://cites.org/sites/default/files/eng/com/sc/69/E-SC69-57-A.pdf*

[102] *For example, concern about this potential trade was raised as early as 1994 by TRAFFIC. See 'The Trade in African Pangolins to Asia: A brief case study of pangolin shipments from Nigeria'. TRAFFIC Bulletin Vol 28, No 1, 2016.*

[103] *https://cites.org/sites/default/files/eng/com/sc/69/E-SC69-57-A.pdf*

that traders are consolidating stocks of scales collected privately by groups that have kept them for traditional use, but field research suggested that many groups that consume pangolins discarded the scales until recently. Whatever the state of stocks, field research in Cameroon, the DRC, and Uganda for this report found illegal harvesting was active and widespread.

Figure 21: Comparison of pangolin seizures, legal trade, and declared stockpiles (live pangolin equivalents)



Source: World WISE, CITES Trade database, IUCN[104]

Estimating the impact of this harvesting is difficult, because little is known about pangolin population numbers. They are solitary mammals who give birth to a single live young after an extended gestation, so their reproductive prospects are limited. They are also nocturnal and reclusive, compounding the difficulty of population assessment. Despite these limitations, it appears that traffickers have managed to locate hundreds of thousands of pangolins every year. One recent estimate put the figure at between 400,000 and 2,700,000 hunted annually in Central African forests based on observations in six countries.[105] If correct, this figure represents tens of millions of hunter-hours spent accessing, slaughtering, and processing these pangolins. This would require a workforce of thousands of full-time pangolin hunters in these six countries. How this sourcing is conducted and coordinated has been somewhat unclear and was the subject of UNODC field research.

In 2018, UNODC undertook field studies in three countries in West and Central Africa (Cameroon, DRC, and Gabon) as well as one outside the region (Uganda). Cameroon has the largest stocks in the region, is second only to Nigeria as a source of seizures and is known to supply Nigeria with scales. Uganda was formerly the largest legal

[104] *Ibid.*

[105] *Daniel J. Ingram, Lauren Coad, Katharine A. Abernethy, Fiona Maisels, Emma J. Stokes, Kadiri S. Bobo, Thomas Breuer, Edson Gandiwa, Andrea Ghiurghi, Elizabeth Greengrass, Tomas Holmern ,Towa O.W. Kamgaing, Anne-Marie Ndong Obiang, John R. Poulsen, Judith Schleicher, Martin R. Nielsen, Hilary Solly, Carrie L. Vath, Matthias Waltert, Charlotte E. L. Whitham, David S. Wilkie, and Jörn P.W. Scharlemann, 'Assessing Africa-Wide Pangolin Exploitation by Scaling Local Data'. Conservation Letters, Vol 11, No 2, 2018, pp 1-9.*

supplier of scales, has the largest known stockpiles, and is also implicated in illegal trade. It appears that both Uganda and Cameroon source pangolin scales from the DRC, which is the country third most associated with illegal trade in pangolin. The Gabon component of the study was an adjunct to elephant poaching fieldwork conducted there. A complete description of this field research is contained in the on-line Methodological Annex. The following chapter is based on this research, World WISE data, and other literature.

Trafficking routes and techniques

Large-scale illicit shipments of African pangolin scales were first seen around 2006 (See Figure 24 below) and have increased dramatically since that time. Most of the recent major pangolin scale seizures from Africa have been traced back to just three countries in the region: Nigeria, Cameroon, and the DRC. An analysis done by the Secretariat shows that the quantity of pangolin scales seized in Nigeria, or by other Parties after it left Nigeria, has escalated significantly in recent years, from approximately two metric tons in 2015 to just under eight metric tons in 2016 and 2017. In first seven months of 2018 alone, some 24 metric tons of pangolin scales were seized in, or from, Nigeria. These massive volumes come mostly from a small number of very large seizures.[106]

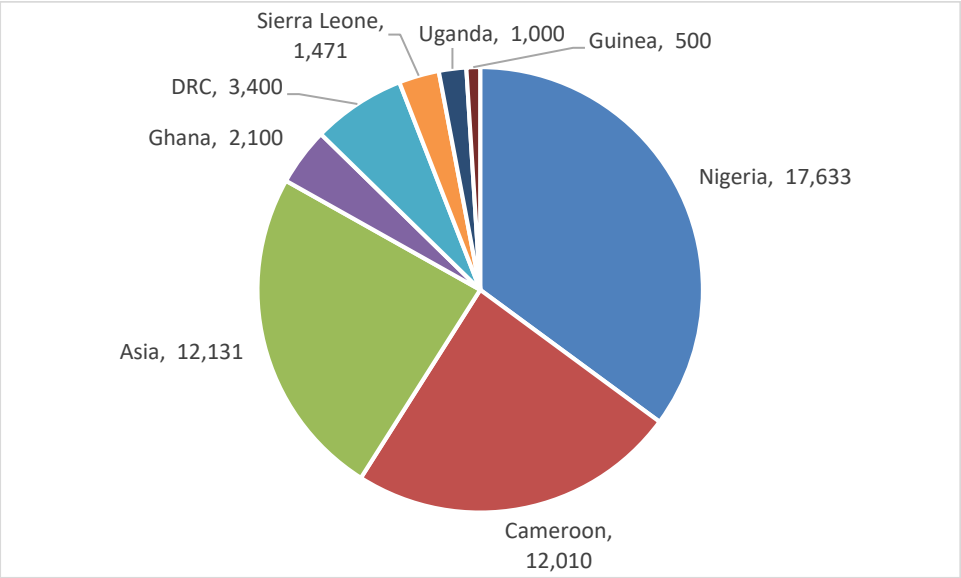
UNODC field research and criminal case studies indicate that these pangolins are sourced from a broad range of countries:

- traffickers based in Nigeria are said to export pangolins scales sourced in Cameroon, the Central African Republic, Republic of Congo and Gabon;
- traffickers based in Uganda source pangolins locally, as well as sourcing them from the northeastern DRC and northwestern Kenya;
- large seizures have recently been made in Cote d'Ivoire, where trafficking from Guinea and Liberia has been indicated in adjudicated cases.

In short, there are concrete indications that pangolins are being illegally exported from most home range countries in the region, with international exports originating from a smaller number of countries (mainly Nigeria, Cameroon, and the DRC). In all countries where fieldwork was conducted, pangolin poachers and dealers are indicating that locating them is becoming much more difficult, an observation consistent with overharvesting.

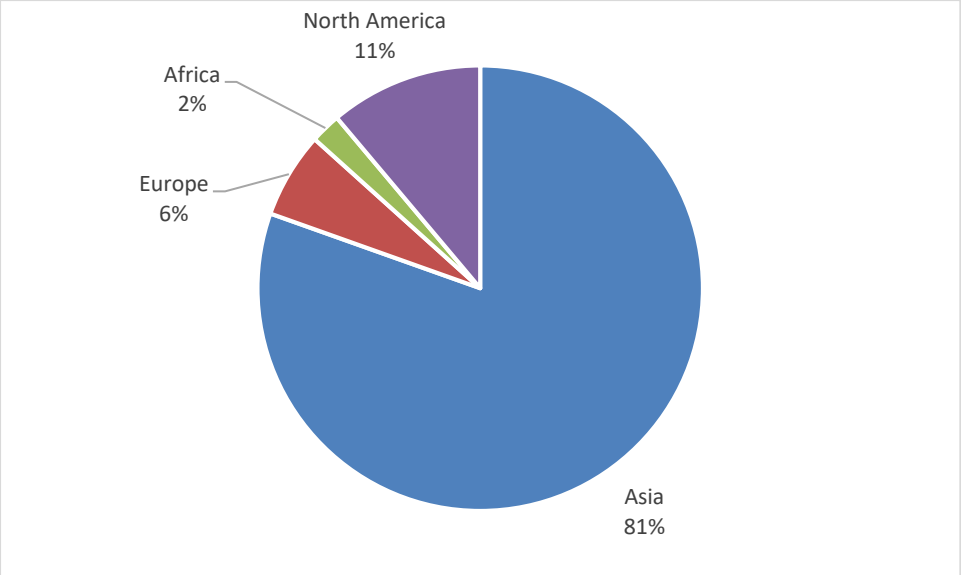
[106] *https://cites.org/sites/default/files/eng/com/sc/70/E-SC70-27-03-05.pdf*

Figure 22: National source of shipment, large (500 kg+) pangolin scale seizures (kilograms), 2001-2016



Source: World WISE[107]

Figure 23: Regional destination of illegal pangolin scale consignments out of 24 metric tons seized, 2013-2017



Source: World WISE

Poachers employ a range of techniques to source pangolins. Pangolins may be tracked, a technique most frequently mentioned in north-western Uganda and the DRC, with poachers following tail-tracks to find the pangolins. Giant pangolins are dug from their burrows in the daytime, but this was said to be a difficult undertaking. Poachers also

[107] *Ibid.*

wait outside burrow entrances until the animal emerges to feed at night, at which point the entrance is blocked. Wire snares are commonly used, which also entrap other wildlife. Dogs have reportedly been trained to ferret out pangolins. In Yokadouma, Cameroon, one Baka hunter claimed to have a traditional medicine that was capable of luring pangolins from their hiding places. In the DRC, pangolin hunting is said to be best during the "termite season", which is reported to be March to July.

Captured pangolins are slaughtered and descaled through immersion in boiling water or fire and scraping with knives. The scales are sun dried in the bush for two days, with some (like the giant pangolin) losing significant mass in the process. Most poachers interviewed focused on the acquisition of scales for export, although meat for local markets were mentioned as a source of demand by a minority of those interviewed.

Wild meat markets in town, as well as other local businesses, provide consolidation points. Information gathered during local arrests indicate that the scales are purchased at local level by middle-men until a load in the tens of kilograms is accumulated, at which point they are transferred to the major cities. Generally speaking, these middle-men provide the transportation themselves, although use of couriers on inter-city transport (typically mini-bus taxis) was also mentioned.

Pangolin scales are trafficked internationally by sea, air, and land. Shipping containers containing large scale consignments are either misdeclared or concealed under coverloads, such as plastic waste. International seizures have shown traffickers using the same techniques repeatedly, including regular air shipments of relatively small amounts of scales. For example, the Dutch government has repeatedly seized similarly packaged consignments of about 20 kg scales from Nigeria in parcel post.[108] Malaysia seized a series of similarly packed shipments in air cargo from Ghana in 2017.[109]

It also appears that traders in other wildlife commodities have moved to cash in on rising pangolin demand. This is shown in the remarkable number of times traders have been arrested with pangolin scales in addition to other species-products,[110] and the number of times pangolin scales have been seized alongside other products (particularly elephant ivory)[111] According to one study that looked at 206 seizures made in China, the cities of Guangzhou, Kunming, and Fangchengang are key nodes for pangolin trafficking.[112] The authors note that recent surveys have found that Guangzhou (China)

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[108] *Personal communication with law enforcement authorities in the Netherlands in 2018.*

[109] *World WISE data*

[110] *For example, according to World WISE, in 2016, Nigerian Customs intercepted 678 elephant tusk segments and 381kg of pangolin being smuggled out of the country by some Chinese traffickers at Murtala Mohammed International Airport, Lagos. Other recent examples can be found in the arrests facilitated by LAGA in Cameroon. In June 2017, a trafficker was arrested in Yaoundé in possession of both a leopard skin and pangolin scales. Based in Gabon, this trafficker used social media to sell wildlife contraband all over the world, while also selling locally to Chinese and Nigerian contacts. In August, pangolin scales and a baby chimpanzee were seized from a trafficker who was involved in cross-border traffic to Gabon and Equatorial Guinea. In September, a couple from south Cameroon with both pangolin scales and a baby mandrill were arrested in Yaoundé. In October, another two traffickers were arrested with two leopard skins and pangolin scales, one of whom was a traditional leader who was selling 10 skins per month. In November, three traffickers were arrested with four elephant tusks and 10kg of pangolin scales.*

[111] *For example, World WISE shows that 791 kg of elephant ivory and over two MT of pangolin scales were seized together at Entebbe Airport on 21 January, 2015 and on 12 December 2015, half a MT of ivory and over 300 kg of pangolin scales were seized in air freight in Singapore.*

[112] *Wenda Cheng, Shuang Xing, Timothy C. Bonebrake, 'Recent Pangolin Seizures in China Reveal Priority Areas for Intervention'. Conservation Letters, Vol 10, No 6, 2016 pp. 757–776.*

is the city with the highest rate of wildlife consumption among those surveyed, both for food and for medicine.

Pangolin trafficking appears to be one of the least specialised wildlife markets. Word has gone out to poachers in many parts of the continent that pangolins are worth money. Unlike elephants, pangolins are small and harmless, with no teeth, reflexively curling into a ball when threatened. Thus, the heavy guns, porters, and other accoutrement of big game poaching are not required, and the barriers to entering the pangolin trade are low. Many poachers interviewed sought pangolins alongside other species, and some hunted only a few nights per month. Some poachers in the DRC said they only located about two pangolins per year but harvested the meat and scales when they found them. In effect, the pangolin supply has been ""crowdsourced",[113] including many part-timers and non-specialists.

Familiarity with the pangolin as a source of food and medicine appears to be highly localised, with poachers interviewed within a few hundred kilometres of each other having very different views of the animal's usage. Some who had previously hunted pangolins for their meat were now capitalising on demand for scales, while others were buying scales from communities where pangolins were traditionally eaten. Interviews with poachers indicated that many had a low level of understanding of pangolins, with some comparing them to rats and reptiles, and having little idea what they eat. In contrast, the Baka people of Cameroon were said to be adept at sourcing pangolins due to their deep understanding of the habits of the species. All the poachers interviewed knew that hunting pangolins without a license was illegal, but most seemed to feel this offence was taken less seriously than other forms of poaching, like elephant poaching. Fear of enforcement did not seem to play a big role in their decision making.

The poachers sell their scales to middle men, who bridge the gap between the rural areas where pangolins are sourced and the urban areas where the international traffickers reside. Like the poachers, these middle men tended to be non-specialists, and some showed little understanding of pangolins or the demand for their scales. Some seemed to think that the scales were used for making bullet-proof vests, for example. The middle men are generally local people with the money to pay cash for scales and the means to transport them to cities. For example, in April 2017, LAGA[114] participated in the arrest of a pangolin middleman in possession of 94 kg of pangolin scales. He was a shop owner in a rural area and would regularly bring scales to contacts in Yaoundé and Douala (Cameroon), returning with supplies for his store bought with the proceeds.[115]

The international traffickers tend to be expatriates. Field research and case records indicate three nationalities are particularly well represented among international traffickers of pangolin: Chinese, Nigerians and, to a lesser degree, Vietnamese, often working together. In Uganda, Indian nationals were also mentioned alongside Chinese.

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[113] According to the Merriam-Webster Dictionary, "crowdsourcing" refers to "the practice of obtaining needed services, ideas, or content by soliciting contributions from a large group of people and especially from the online community rather than from traditional employees or suppliers." A similar definition is found in the Oxford English Dictionary.

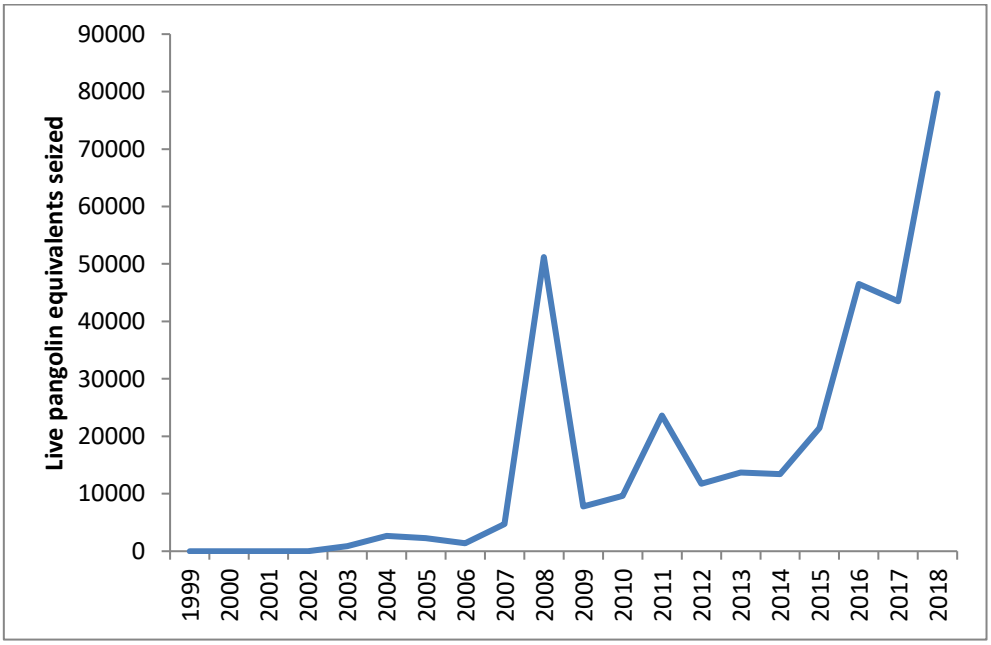
[114] See footnote 38 above.

[115] http://www.laga-enforcement.org/Portals/0/Activity%20reports%202017/LAGA_Annual_Report%20%20%202017..pdf

On several occasions media sources have reported that Chinese traffickers have been arrested in West Africa in possession of pangolin scales. [116]

Trends

Figure 24: Global pangolin seizures (live pangolin equivalents), 1999 to July 2018



Source: World WISE, EIA, and CITES[117]

Unlike ivory or rosewood trafficking, there are very few hard data on which to base an African pangolin scale trafficking estimate.[118] As World WISE records indicate, the issue is relatively new and has developed at a pace few could have anticipated, so no

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[116] *For example, in March 2018, a Chinese national was arrested in Lagos with over 300 bags of pangolin scales he is said to have sourced from Cameroon. https://www.pressnewsng.com.ng/2018/03/chinese-man-arrested-with-n173bn.html*

[117] *Thanks to the Environmental Investigation Agency, the IUCN species programme (Dan Challender), and CITES for their help in updating World WISE pangolin data.*

[118] *Ivory has the benefit of extensive population survey data, a dedicated poaching tracking system (MIKE), a long-term seizure reporting system (ETIS), and numerous end-use market surveys. Illegally sourced rosewood is traded in legal timber markets, so trade data describe the volume and declared value of the flows. There are no comparable data for pangolins. The seizure record is the best evidence of trends, but many seizures do not indicate the species of the pangolin concerned, and there is great variability between species of pangolins in terms of scale yield. The arboreal species of West and Central African pangolins yield about 500 grams of scales, while the giant ground pangolin yields five times that amount. This makes it very difficult to tell from the seizure record how many animals were affected. See the yield tables in Annex A of the IUCN report to CITES:*

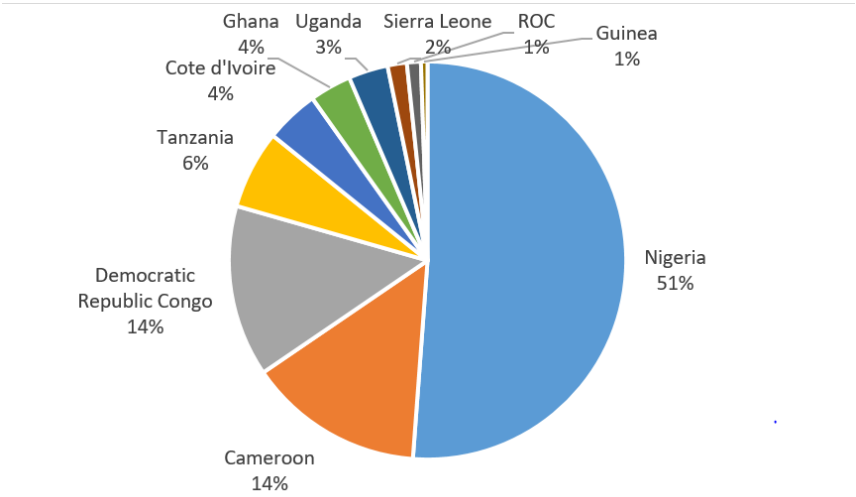
https://cites.org/sites/default/files/eng/com/sc/69/E-SC69-57-A.pdf

dedicated monitoring mechanism is in place. Unlike parrots, it was not preceded by extensive legal trade, from which a likely illegal market could be imputed. The demand in Asia was satisfied through illegal channels before Africa became affected. Consequently, any estimation of the size and value of the flow is necessarily highly speculative.[119]

World WISE seizure data, however, do suggest the minimum number of pangolins entering illegal trade each year, although the extreme physical size variability between species provides a barrier to accurately converting scales to live pangolin equivalents. According to interviews conducted in Cameroon, the two smaller arboreal species yield between 500 grams and one kg of scales (per specimen), while the Giant ground pangolin yields 2.5 kg (per specimen) of scales once dried. In other words, one kilogram of scales could represent two animals or it could represent less than half of one, depending on the species.

That said, looking just at the very largest seizures, nearly 40 tons of scales were seized in the first half of 2018. If the year closes at this pace, then 80,000 kg would have been seized. That would mean that at least 32,000 and as many as 160,000 pangolins would have been killed, trafficked, and interdicted. As Figure 24 shows, the trend has been sharply upward since 2014. Over 90% of the volume of the largest 50 seizures where the origin of the shipment could be determined were traced back to West and Central Africa.

Figure 25: Distribution of the volume of 40 large[120] African pangolin scale seizures 2014-2018



Source: World WISE

[119] *Ibid, (p 94)*

[120] *Between 300 kg and 11.9 metric tons (average 2500 kg).*

Priority Measures

The illicit African pangolin market has emerged rapidly, and there remain many basic gaps in knowledge. Research indicates that hundreds of thousands of African pangolins are being killed each year, but it is unclear what proportion of the population this represents. Given their slow rate of reproduction, however, it is difficult to imagine this offtake is sustainable. Population surveys are needed to fully assess the impact.

The field research conducted in connection with this report reveals that supply of pangolins is highly diffuse. In effect, at present, pangolins represent buried treasure in some of the poorest areas of the world. Almost all the poachers interviewed knew that harvesting pangolins without license was illegal, and neither this fact nor the threat of law enforcement was sufficient to deter them. It would be possible to exert more pressure on supply by focusing on the consolidation points, such as the wild meat markets, or on the exporters, through intelligence led investigations. Given the wide range of the African pangolin species, however, supply reduction is unlikely to be successful as an isolated strategy.

The decision to place the African pangolin species on CITES Appendix I means that the international community has assessed the African pangolin scale trade to be unsustainable. As there is no legal commercial international trade, and domestic supply in destination markets is extremely limited, market-wide demand reduction is entirely appropriate.

The demand for African pangolin scales appears to be directly related to the overexploitation of Asian pangolin populations. A parallel trend has not been seen for pangolin meat. The recent demand, therefore, seems to be primarily driven by the medicinal market. Like the pangolin population itself, the size and nature of this market is not well understood. According to the CITES Trade Database, between 1975 and 2017, less than 29 metric tons of CITES-listed pangolin scales have ever been legally traded. At the 69th meeting of the CITES Standing Committee (SC 69), Parties were requested to maintain records of government-held and significant privately held stockpiles of pangolin scales.[121] Quantification of the demand for pangolin scales is essential to understanding the range of options available.

CoP17 adopted Resolution Conf. 17.10, on *Conservation of and trade in pangolins*, which reaffirms the need for traditional medicine practitioners to develop programs to reduce demand for illegally sourced pangolin products. As of the Appendix I listing for all African pangolin species, no African pangolin scales should be entering the Asian medicinal market. The consensus appears to be that Asian species in the wild have been decimated,[122] and that farming of pangolins has been largely unsuccessful.[123] As

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[121] *https://cites.org/sites/default/files/eng/com/sc/69/sum/E-SC69-SR.pdf*

[122] *All Asian pangolin species are rated as Endangered or Critically Endangered by the IUCN Red List, whereas the African species are rated as Vulnerable.*

[123] *See, for example, Hua L, Gong S, Wang F, Li W, Ge Y, Li X, and Hou F, 'Captive breeding of pangolins: current status, problems and future prospects'. ZooKeys No 507, pp 99–114, 2015. Of 35 captive pangolins in the study, only two remained alive after 600 days.*

a result, the medicinal pangolin scale market has an inherent expiration date. Those involved in traditional medicines, including traditional-medicine practitioners and consumers, have been called upon to develop public education and awareness programmes, working towards the elimination of illegal use of endangered species, and developing awareness of the need to avoid over-exploitation. The global pharmaceutical trade is continually experiencing similar market closures as new and more effective medications eliminate the need for old ones. Lessons may be learned from this experience to help ease the closure of what has been deemed an unsustainable market.

Rosewood

"Rosewood" is a trade term, not a botanical one. It refers to a range of fragrant tropical hardwoods with rich hues that are suitable for a range of applications, particularly for the manufacture of musical instruments and traditional furniture known as *hong mu* (red wood). As with the other two species discussed so far in this report (elephants and pangolins), the species traditionally used in Asia have been over-exploited,[124] and traders have turned to related species from Africa. In particular, the tree species *Pterocarpus erinaceus* has been harvested in great volumes in the past decade, and concern about over exploitation led to its transfer from CITES Appendix III to CITES Appendix II at COP 17.[125]

As an Appendix II species, *Pterocarpus erinaceus* logs are in a different category than the other three species-products (ivory, pangolin scales, and live African grey parrots) discussed in this report, which are all Appendix I. The trade in this timber is not illegal simply because it is commercial. Rather, it is illegal because much of it violates local laws[126] and is not traded in accordance with CITES requirements. Few countries in the region have a strong scientific basis for making a non-detriment finding, which is a key underpinning of CITES to set sustainable (non-detrimental) levels of trade, due to resource constraints. There appear to be discrepancies between what exporting countries are reporting and what importing countries are reporting as received. These matters are discussed below.

Pterocarpus erinaceus is known locally by a number of names.[127] In this chapter, for the purposes of brevity and clarity, it will be referred to as *P.erinaceus* or simply "rosewood", as it is the only species indigenous to the region that is recognised under trade standards as rosewood.[128] *P.erinaceus* is found in mainly in West Africa and some northern parts of Central Africa,[129] although traders interviewed in connection with this report claimed to be getting their supplies from countries south of the recognised range.[130] It is nitrogen fixing, fire resistant, and brings rains to otherwise arid areas,

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[124] *See, for example, CITES CoP17 Prop.55:*

https://cites.org/sites/default/files/eng/cop/17/prop/060216/E-CoP17-Prop-55.pdf

[125] *According to CITES CoP17 Prop. 57, "The last few years have seen a dramatic increase in trade of*

Pterocarpus erinaceus timber, in response to rising demand in Asia for rosewood furniture and increasing scarcity of other officially recognized 'rosewood' species." Before this, it was placed on Appendix III at the request of Senegal. See: https://cites.org/sites/default/files/notif/E-Notif-2016-008.pdf

[126] *See Chapter 3, Table 1 in the 2016 World Wildlife Crime Report for a summary of some of the West African logging protections implemented at that time.*

[127] *Pterocarpus erinaceus is known as kosso in Nigeria, vène in the Francophone countries, pau de sangue in Guinea-Bissau, krayie/kpatro in Ghana, and keno in The Gambia.*

[128] *In China, rosewood is captured under HS code 44039930: "Padauk in the rough". The definition of woods in this category was established by the Chinese State Administration of Quality Supervision, Inspection and Quarantine in 2000, and includes 33 species of the Dalbergia, Pterocarpus, Diospyros, Millettia, and Cassia genera.*

[129] *According to Species+, P.erin's range includes Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo.*

[130] *In particular, during fieldwork, experienced P.erinaceus traders claimed to be sourcing P.erinaceus from the DRC along the Angolan border. It remains possible that this is another Pterocarpus species, but experienced traders should be able to differentiate. Pterocarpus tinctorius or chrysothrix, a species known locally as mukula and exported as "rosewood" has been extracted from Zambia at an estimated rate of 110,000 cubic metres per annum, with revenue losses of about US$3.2 million, and estimated bribes paid to state officials of about US$1.7 million.. See Cerutti, P O et al., Informality, global capital, rural development and the environment: Mukula (rosewood) trade between China and Zambia. Research Report. IIED, London and CIFOR, Lusaka, 2018.*

giving it a value to ecosystems that may not be recognised by those seeking to benefit from its exploitation.

Even before its CITES Appendix III listing in May 2016, and subsequent transfer to Appendix II in January 2017, the nations of the region recognised that the timber was being unsustainably harvested and responded with a range of controls. These included everything from log export bans to species-specific controls,[131] and most of these measures remain in place. While these measures made *P.erinaceus* illegal to export from most range states, this did not affect its legality to import. Prior to the CITES listings, the main destination market countries did not have legal provisions in place that would allow them to refuse this wood despite its illegal origins. While these illegal exports were often undocumented in Africa, they were documented in the legal trade statistics of the destination markets. These data are used in the following analysis.

Trafficking routes and techniques

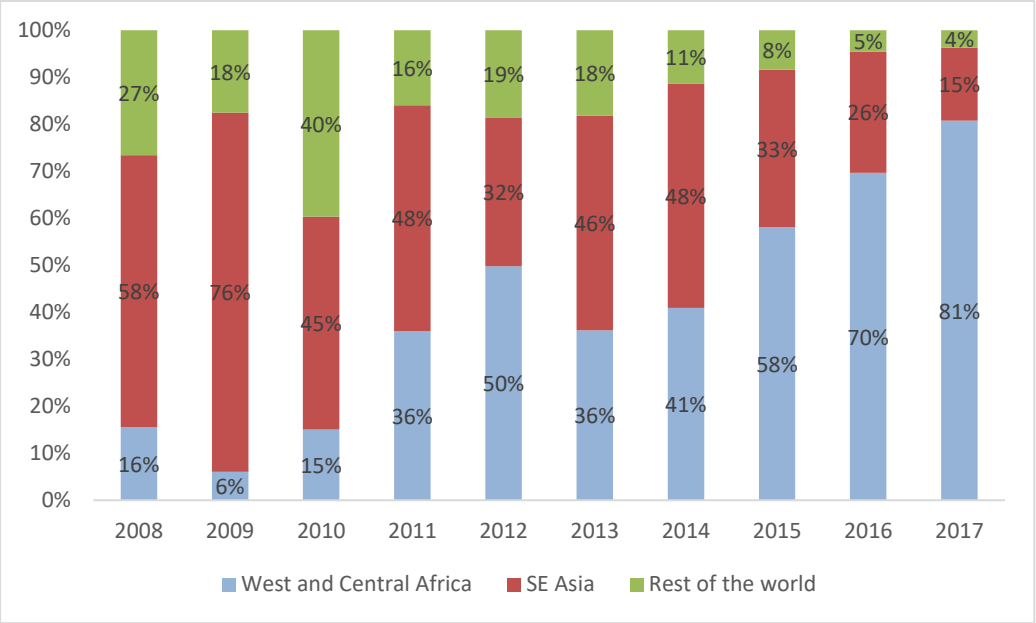
The rapid growth of the illegal trade in *P.erinaceus* has occurred in the context of declining exports of other rosewoods from Asia, so that by 2017, West and Central Africa were the source of over 80% of the world's rosewood logs.[132] The share could actually be higher, because *P.erinaceus* may be exported, purposefully misdeclared as other woods, particularly after the Appendix II listing.

http://pubs.iied.org/pdfs/13603IIED.pdf

[131] *For a description of the legal measures taken, see Tables 1 and 2 in Chapter 3 of UNODC, World Wildlife Crime Report, op cit, p. 37.*

[132] *Sawn wood is also exported, but it is a fraction of the log flows. For the purposes of simplicity, the following discussion focuses on log exports.*

Figure 26: Share of rosewood log supply by exporting region[133]



Source: Elaborated from Trade Atlas and Comtrade data

The three countries from the region responsible for the largest share of recorded *P.erinaceus* trade in 2017 are Nigeria, Gambia, and Ghana, collectively responsible for 85% of the volume. Based on interviews with timber traders and enforcement officials in the region, each of these countries serves as a transit area for timber illegally sourced in other countries.[134] As the leading exporter since 2014, Nigeria did possess substantial *P.erinaceus* supplies, but interviews with Nigerian timber traders indicate that these have been exhausted in many states. The growth of rosewood exports from Nigeria has been exponential, almost doubling in 2017, the year when the Appendix II listing came into force.

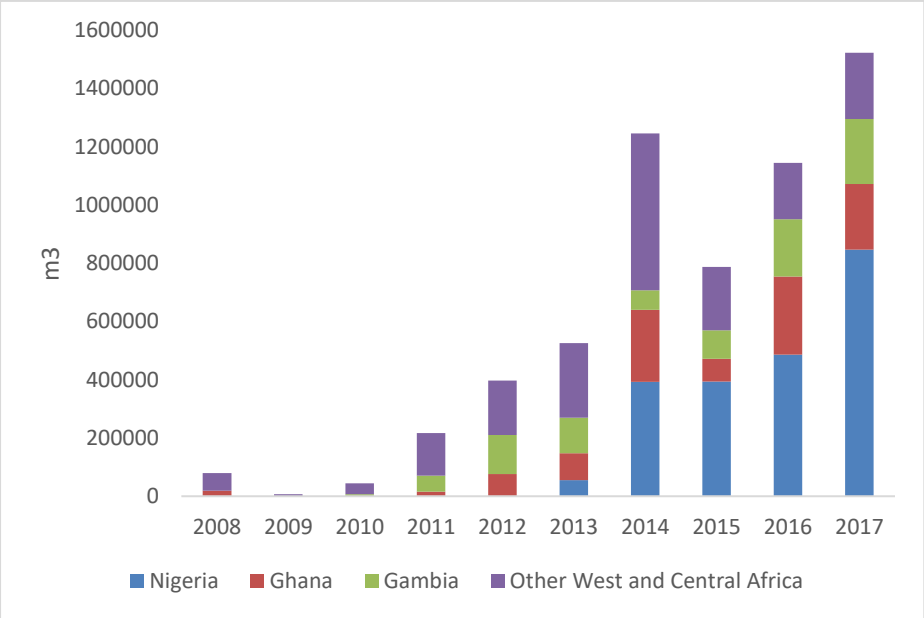
At SC70, the CITES Standing Committee considered and agreed to a recommendation to suspend commercial trade in *P.erinaceus* from Nigeria.[135]. Concerns were raised on the legal acquisition of timber, and the lack of recent scientifically based non-detriment findings, which help establish sustainable levels of trade were raised. In addition, there is no annual export quota for this *P.erinaceus* established at the Federal level in Nigeria. In the absence of non-detriment findings and export quotas to limit the exports to cautious levels, it appears that at least one of the key mandatory requirements under Article IV of CITES is not being properly implemented before the issuance of the CITES permits.

[133] *This graph refers to all recognised species of rosewood logs, excluding sawn timber. See footnote above.*

[134] *See the on-line Methodological Annex.*

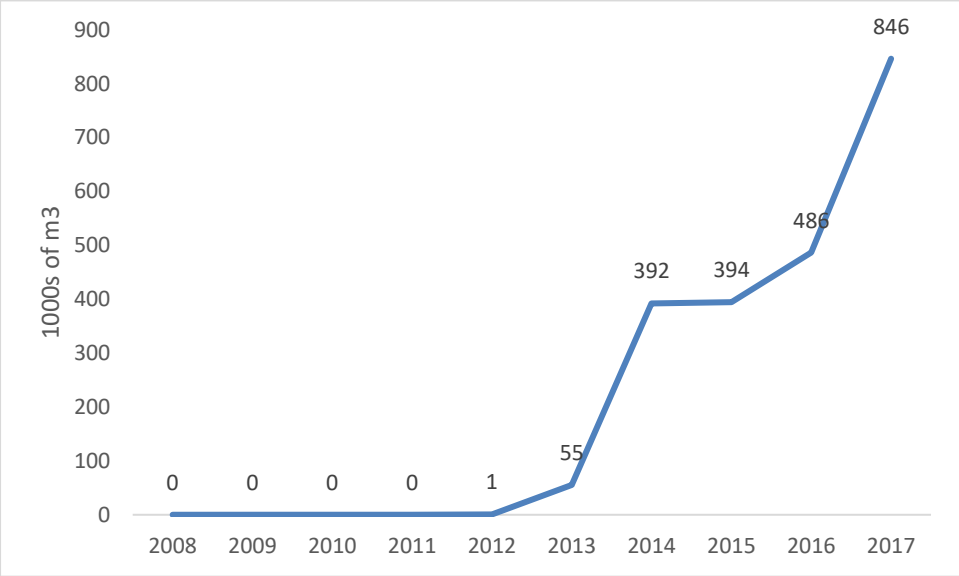
[135] https://cites.org/sites/default/files/notif/E-Notif-2018-084.pdf

Figure 27: National sources of *P.erinaceus* trade, 2008-2017



Sources: ITTO Statistics Database; COMTRADE

Figure 28: Thousands of cubic meters of *P.erinaceus* logs exported by Nigeria to Asia



Source: Elaborated from Trade Atlas and Comtrade data[136]

These major exports from Nigeria were recorded in the legal import statistics of their destination countries. But interviews with CITES Management Authority officials and

[136] *Based on importer reported data. Exporter data from several sources were compared for this study, and were found to be too inconsistent for use.*

other officials in one of the main exporters[137] suggest that Appendix II certificates issued were two orders of magnitude smaller than the volumes registered as received. In addition, there are active log export bans in many countries, including Nigeria and Gambia, rendering the exports of rosewood logs from West and Central Africa illegal on several fronts.

In contrast to the large trade through ostensibly legal channels between Africa and Asia, rosewood from Asia and Latin America has been seized in great volumes. Table I below captures rosewood seizures made in Hong Kong SAR alone in the past two years: almost 200 metric tonnes worth an estimated US$50 million.[138] No major seizures of illegal rosewood from West and Central Africa were made in Hong Kong SAR during this time.

Table 5: Rosewood seizures made in Hong Kong SAR, China, 2017 to mid-2018

Date	Weight (Metric Tonne)	Value (US$ millions)	Source
Feb 9, 2017	8.6	6	Malaysia
Feb 15, 2017	5.1	6.2	India
May 5, 2017	1.4	1	Bangladesh
Aug 31, 2017	13.4	9.3	Malaysia
Sept 21, 2017	12.4	8.7	Malaysia
Jan 16, 2018	29.2	2.9	Guatemala
Feb 5, 2018	26.2	3.6	Thailand
April 19, 2018	23.8	2.4	Honduras
June 5, 2018	5.7	6.9	Malaysia
June 27, 2018	29	1.15	Guatemala
July 6, 2018	8.7	1.3	Cambodia
July 11, 2018	26	1	Guatemala
TOTAL	**190**	**50**	

[137] *The Gambia. CITES Management Authority data showed 486m3 certified in 2016 and 456m3 certified in 2017. In contrast, import data from other countries showed 161,000m3 in 2016 and 184,000m3 in 2017.*

[138] *These recent seizures represent less than one-fifth of the total seized: former seizures totalling 1,008 MT of Dalbergia louvelii, 128 MT of Pterocarpus santalinus and 33 MT of Dalbergia cochinchinensis are kept under the custody of the Hong Kong Agriculture, Fisheries and Conservation Department. Endangered Species Advisory Committee. Disposal of Timber Forfeited under the Protection of Endangered Species of Animals and Plants. Ordinance, Cap.586. Hong Kong: https://www.afcd.gov.hk/english/aboutus/abt_adv/files/cp_esac_5_2017eng.pdf*

Source: Hong Kong Customs[139]

In contrast, it appears that *P.erinaceus* is not widely seized because there is no reason to transport it clandestinely – "legal" trade channels remain available. But most of this trade comes from wood that was harvested or exported illegally under various national laws. For example, it has been verified in interviews with at least seven senior Nigerian officials that export of logs or squared logs from Nigeria is prohibited under national law, and therefore illegal.[140] There remains some dispute as to what dimensions define "squared logs",[141] but interviews with officials and traders, as well as inspections at the open timber markets and ports, show that both logs and non-compliant squared logs continue to be exported. Importers continue to classify these loads as "logs". In addition, data from the Central Bank of Nigeria for the first third of 2018 show that tax-compliant exports of *P.erinaceus* are less than 10% of those documented in the trade statistics.[142]

Similarly, the CITES Management Authority of Gambia reports just under 1000 cubic meters of rosewood logs have been exported since 2016 (about 50 containers or 4000 logs), and none since a log export ban was put in place in June 2017.[143] In contrast, importer-reported trade data show over 300,000 cubic meters have actually been exported from Gambia during this time period (about 20,000 containers or 1.5 million logs), including 13,000 cubic metres in 2018. And a senior official in the Ministry of Environment, Climate Change, and Natural Resources, where the CITES Management Authority sits, reports authorising the export of more than twice this export total in 2017. Neither of these entities have distribution or population data for *P.erinaceus* in Gambia, with the last limited survey being conducted in 2010, so a scientific non-detriment finding is impossible. One reported reason for these discrepancies is the difficult political transition the country underwent in 2017, with the ouster of a dictator who had ruled for 23 years. Surprising changes of government are typical for the region and represent an ongoing challenge for wildlife protection.

These leading export countries have not always been the primary source of illegal wood, and traffickers have switched harvesting sites whenever they have exhausted stands or experienced resistance. Given free trade in ECOWAS and the porosity of borders, the country exporting a commodity is not necessarily the source (or home range) of that commodity. As discussed below, there are good reasons to believe that much of the timber being exported from Nigeria, Gambia, and Ghana was not harvested in these countries, and therefore any CITES certification should indicate these shipments are accompanied by a CITES re-export certificate. To issue a CITES re-export certificate, the CITES Management Authority of the country of re-export must be satisfied that the specimen was imported in accordance with CITES (i.e. there was an original export

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[139] https://www.customs.gov.hk/en/publication_press/press/index.html

[140] *In addition, the Nigeria Customs Administration website puts timber (rough or sawn) on its export prohibition list:*

https://www.customs.gov.ng/ProhibitionList/export.php

[141] *Once felled, rosewood logs are generally stripped of their bark and outer sap wood in the field to make the logs lighter and easier to stack for transport. This process results in a "squared log", but this is not worked timber in the sense intended by log export controls. Dimensions must be specified to distinguish between a squared log and a thick plank. Different acceptable dimensions were cited by different authorities interviewed.*

[142] *Between January 2018 to April 2018 the CITES Management Authority of Nigeria authorised exports of over 61,000 cubic meters of rosewood exports, whereas the Central Bank of Nigeria shows authorised exports of only 6587 cubic meters during that same period. These unauthorised exports would not have paid the requisite fees under the Nigeria Export Service Scheme.*

[143] *Discussions with a senior official indicated that this was not a firm cut off, as a number of dealers had purchased wood and were allowed to export until late 2017.*

permit accompanying the specimen, underpinned by appropriate non-detriment findings and the specimen was legally acquired in accordance with national law of the exporting country). The recent trade suspension for Nigeria is likely to result in other ports in the region being used.

Of the three major export sites, Nigeria appears to have the largest remaining stocks of *P.erinaceus* and continues to be a source country. Taraba, Adamawa, and Kogi states continue to be major sources of rosewood according to traders, while past sources – such as Odun, Oyo, Kogi and Ekiti states – appear to have been exhausted. This appears to have brought about a shift in the use of ports. Whereas formerly, the Lagos ports (Apapa and Tin Can Island) were primarily used, since 2016 Port Harcourt (Rivers State) appears to be preferred, as it is closer to the source states.[144]

Interviews with traders indicate, however, that imports from Cameroon supplement the local rosewood supply in Nigeria. Similarly, in Gambia, forestry officials interviewed estimated that nearly all the rosewood exported comes from the Casamance area of Senegal,[145] while exports from Ghana appear to be supplemented by illegal imports from Burkina Faso and Côte d'Ivoire. All these countries have log export bans in place.[146]

Most recently, some countries with low volumes of illegal trade in absolute terms have nonetheless experienced a relatively large increase in exports. For example, felling of rosewood has long been illegal in Mali since 1995. Mali has been targeted by rosewood traffickers since at least 2003,[147] and has very few forested areas remaining.[148] It is not a likely transit country for rosewood sourced from other regions, yet in 2017, it was cited in the import trade statistics as the source of over 68,000 cubic meters of rosewood logs, more than seven times the volume of the previous year. According to the CITES Trade Database, these exports were not reported to CITES. The first quarter of 2018 appears on pace to exceed this total. If sourced in Mali, all this trade is illegal.

Similarly, timber exported from Sierra Leone is likely to have been harvested in Sierra Leone, and these volumes have surged in the last two years, despite a national log export ban. At over 84,000 cubic meters of logs, the first quarter of 2018 had already exceeded the 2017 total. The country provides an example of the way that shifting and confusing policy can fuel exports of timber that would otherwise be illegal. In the run up to the national government elections in March of 2018, the longstanding log export ban was temporarily lifted, and this may have fuelled the surge in exports. The ban was reinstated by the new President on 4 April 2018.[149]

Illegally traded rosewood is also often derived from protected areas, in contravention of national law. The case of Gashaka Gumti National Park in Nigeria, as explained by a senior park official, illustrates a typical trafficking scheme. Gashaka Gumti is one of the

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[144] Based on the Central Bank export data, ports in Rivers State were responsible for 85% of the exports in the first part of 2018.

[145] The exception being one senior Forestry official, who estimated that only 60% of Gambia's exports came from the Casamance.

[146] The only countries with reported large worked rosewood exports are Nigeria and Benin. Sierra Leone, Mali, Gambia, Ghana and Gabon all report exports of less than four metric tons in 2017.

[147] Theodore Leggett, 'The rapid rise of rosewood trafficking in West Africa'. Forum on Crime and Society, forthcoming.

[148] As of 2015, only 4% of the territory of Mali was forested, according to World Bank statistics, and the vast majority of the forests belong to the state, according to interviews with senior officials

[149] http://slconcordtimes.com/govt-suspends-timber-export/

largest national parks in West Africa, at over 6,400 km^2, about half the size of Gambia. With many old trees, logging in the Park is prohibited. Penalties for illegal logging are light, however.[150] Between July 2017 and July 2018, the Conservator General reports 146 arrests related to the illegal logging of *P.erinaceus* in the Park.

Illegal logging often centres around professional timber traders who may be from the logging area but who have links to exporters in the port cities. These traders "empower" (or activate) local community leaders to source *P.erinaceus*, paying them a nominal fee to source rosewood.[151] These leaders in turn recruit other community heads to promote logging. Designated depots are established in the periphery of the park and a "depot chairman" assigned. Local people are then recruited to find prime trees in protected areas, and local labour employed to extract them, typically at exploitative rates.[152]

One side effect of the illegal trade is the growth of local crime. The associated new cash flowing into the area attracts bandits, sex workers,[153] and kidnappers. According to officials and traders interviewed in Nigeria, there has been violent competition for logging territory, corruption of forestry officials, and use of drugs such as Tramadol to ease the pains of the work. Similar complaints were heard from communities along the Gambia/Senegal border, where wealth associated with illegal logging has also conflicted with local norms.

Transport of illegally obtained logs from the depots by land, is generally not a problem, although truckers are subject to all manner of roadside "taxes" from various dubious local authorities. During interviews, traders showed handfuls of printed receipts from these bodies that they had paid. As the more accessible *P.erinaceus* stocks become depleted, a seasonality in exports can be seen in some countries, with a dip during the rainy season when roads to remote areas become impassable.

Given the volumes of timber involved, amounting to thousands of containers annually, it would be logistically inconvenient to conceal the illegal shipments.[154] As a result illegal exports tend to go through the container ports under some guise of legality. For example, Benin is one of two exporters of sawn rosewood in the region,[155] and interviews conducted in the country in 2014[156] found that *P.erinaceus* planks were frequently used at the mouth of a container to conceal logs within. Interviews with officials in the region showed that countries rarely have the capacity to unload or scan a departing timber container to verify the contents, so loading the outer third of the container with planks allows good cover for illegal log exports. This may be one reason why Benin appears to

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[150] *Under Section 31 of the National Parks Act of 1999 (Act 46), typical penalties range from USD$28 to USD$138, but can reach a maximum of USD$2759 (1Million Naira) depending on the gravity of the offence.*

[151] *Prices cited include US$138 to US$193 for a district head and only US$28 to US$55 for a village head as a once off fee.*

[152] *Typical labour costs cited were US$8.28 per log cut to chainsaw operators; US$ 5.52 per log to "pushers" who manually transport the log from the felling site to the depot; and US$1.38 per log to loaders, who work in teams of five or six and divide this fee among them. This labour is generally conducted without safety equipment.*

[153] *Sex work is illegal in the Muslim northern states. The national penal code further prohibits procurement and other offences related to the commercialisation of prostitution in sections 222 to 227.*

[154] *Some rosewood concealed in cover loads has been observed, however. For example, Gambia detained containers in July 2018 that had concealed P.erinaceus logs behind a load of plastic waste.*

[155] *According to trade statistics, with the other being Nigeria, which only began exporting sawn rosewood in 2014 but was the leading exporter in 2017.*

[156] *See the Methodological Annex of the World Wildlife Crime Report 2016.*

be unique in the region in using 40-foot containers to export rosewood, based on interviews in the region.

For example, looking at the data presented by the CITES Management Authority of Nigeria for January to August 2018, it appears that one hundred containers of rosewood were authorised to leave the country every day during that period.[157] The Forestry Inspection Unit has only one officer designated to inspect the loads leaving the two ports in Lagos (Apapa and Tin Can Island, which are situated about one half an hour apart), and two in Port Harcourt. Interviews with officials in the ports indicated that timber loads were never unloaded, scanners were used for imports only, and that there was very little space or scope to detain shipments. Apapa Port, for example, is owned by a private company (APM), and charges the government a daily rate for the storage of containers. As a result, questionable shipments are generally returned to the shippers rather than seized.

Corruption is an issue throughout the trafficking chain, from the bribes paid to local authorities to the road taxes and the ports. Multiple layers of overlapping bureaucracy in some countries further complicate the issue. In addition, falsified CITES permits have been reported by senior officials interviewed. For example, when interviewed, the Gambian CITES Management Authority reported receiving calls from China when false Gambian export permits had been detected. In response, the certificates were updated, but they were produced by the Gambian government printers on normal paper in carbon triplicate. Based on field observations, they are kept in a drawer in the unsecured and shared office of the Management Authority. Similar situations were seen during visits to other CITES Management Authorities.

In response to illegal logging, many countries have seized wood and are sitting on considerable stockpiles, which themselves are at risk of being diverted to trafficking. For example, most of the illegal logging in Guinea-Bissau took place between 2012 and 2014, during the instability following a military coup that was condemned and sanctioned by the international community. A moratorium was placed on rosewood exports and stockpiles frozen in 2015. Unfortunately, despite repeated attempts, the government has been unable to inventory more than half of the suspected reserves, largely due to resource constraints. The people from whom this timber was originally seized are still regarded as the owners, and the moratorium on export is expected to expire in 2020. Fieldwork has shown that freshly cut wood is being added to these stockpiles in 2018, and that traders in the region regard Guinea-Bissau as “open” to trade. Laundering through stockpiles poses the greatest threat in this country.

As with pangolins, it appears that the primary exporters of rosewood are Asian expatriate traders. Field observations show these traders are remarkably persistent. For example, the same traders can be seen today in Bissau as were active during the height of the illegal logging in 2014. They are mostly found in the urban export areas, as risks in the source areas are great. For example, they were frequently targeted for kidnapping during the early years of rosewood exploitation in Nigeria, according to interviews with officials in the region conducted in 2014.

In some cases, the trafficking can lead to instability. The trafficking of rosewood from the Casamance area of Senegal though Gambia provides an example. A range of

[157] *Based on a conservative estimate of 20 cubic meters per container.*

officials interviewed in Gambia reported that there were no longer commercial stands of *P.erinaceus* in the country, and that anything from 85% to 95% of the rosewood exported from Gambia was harvested in Senegal.[158] One senior official disagreed, putting the figure at only 60%. Since Senegal has a log export ban and was the first to list *P.erinaceus* on Appendix III of CITES, all this wood is illegal. In addition, the CITES Management Authority of Gambia reports issuing only export permits, not re-export certificates, in effect claiming that this timber has its origin in Gambia.

As noted above, Gambia is currently in transition, re-establishing itself after 22 years under the rule of Yahya Jammeh. An Economic Commission has been established to investigate the many ways the former regime enriched itself criminally, including two people who have been tasked with investigating the former President's role in trafficking *P.erinaceus*. According to interviews with senior officials, in 2014, the President took control of a trafficking flow that had been running since 2010. To do this, he established his own export company, called "Westwood". All other companies wishing to export *P.erinaceus* were required to pay a fee of US$3,000 per container to Westwood before they were authorised to gain access to export. In 2016, the CITES Management Authority sought to collect data on *P.erinaceus* exports but was immediately warned by soldiers not to collect any more information.

According to interviews with senior officials, in addition to self-enrichment, there was a political dimension to Jammeh's control of the rosewood market. According to officials interviewed, Jammeh had poor relations with the Senegalese government, and supported the Casamance Rebels. Jammeh was a Jola, and the Movement for the Liberation of the Casamance (MFDC) was largely a Jola separatist rebellion.

The MFDC was founded in the early 1980s and is sometimes described as Africa's longest running insurgency. The Casamance is in the southern part of Senegal, divided from the rest of the country by Gambia and the Casamance River. The northern parts of Senegal are quite arid and form part of the Sahel, while southern Senegal is relatively verdant and fertile. Nonetheless, the capital, and the majority of the population, resides in the north, and political power is centred there.[159]

The south is also ethnically different from the north, dominated by the Jola and Mandinka people, who are also found in Gambia and Guinea Bissau. In addition to language differences, the north is largely Muslim, the southerners tend to be Christian or follow traditional religious practices. The result is very similar to what is seen in the Niger Delta conflict in Nigeria: in the 1980s, separatists emerged resentful of the perceived exploitation of their land by the Muslim north.[160]

Since the objective of the MFDC has been to emancipate their wealth from nationalization, smuggling of natural resources seems to follow naturally. After Jammeh was voted out and then forced from office by ECOWAS troops in 2017, there has been an increasingly disorganized and contested rosewood market in the Casamance. This

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[158] *These officials include the Minister of Environment, the CITES Management Authority, the CITES Scientific Authority (University of The Gambia), a Senior Revenue Collector and Forest Officer in the Upper River Regional Forestry Office, a Regional Forestry Office in the Upper River Regional Forestry Office, and an Assistant Regional Forest Officer in the Lower River Region.*

[159] *Gail Hopkins, 'Casamance refugees in The Gambia: self-settlement and the challenges of integration'. Research Paper No. 220. Geneva: Policy Development and Evaluation Service, United Nations High Commissioner for Refugees, 2011.*

[160] *Ibid.*

has resulted in some local violence, although it does not appear this violence has been driven by the MFDC. In a way, some elements of the Casamance community have traded a military insurgency for an economic one.

In addition, it appears that members of Jammeh's elite killing force, the "Junglers", fled the country during the transition and are active in rosewood markets in both the Casamance and northern Guinea-Bissau.

This is not to put all the blame for rosewood trafficking on the rebels or people of the Casamance. Field research by UNODC has also implicated corrupt officials in Senegal and Gambia in the flow of wood from this area, and others are responsible for logging and smuggling in other parts of the region. Official tolerance of the flow is partly profiteering, but part of it is political prudence, since the situation remains volatile.

According to interviews in the region, "Security Task Force Teams"[161] have been deployed to the border to detect and confiscate illicit timber, and a senior official says those involved are "seriously warned" to desist. This approach is taken in a context of violent conflict between logging groups, and between logging groups and local communities, not necessarily related to the insurgency. The maximum fine for illegal logging under the old Gambian Forestry Act (1998) is only US$100 in any case. The 2018 Forestry Act increases this 10-fold, and includes the possibility of a year imprisonment, but has not yet been enacted. Seizures of rosewood along the border have been significant, however, and the Gambian state presently has custody of over 100,000 rosewood logs seized at various points along the border.

The income derived from this flow has prompted Gambians to look for rosewood supplies beyond the Casamance. Based on field work in the region, Gambians have been found active in the rosewood trade outside of Gambia in countries like Cameroon and Guinea Bissau, as have Nigerians, Malians, Senegalese, and Conakry Guineans. According to officials, Gambians have even been arrested in association with rosewood-related violence in Senegal. As noted above, Asian expatriates handle most of the major exports throughout the region.

Gambia is not the only place where the rosewood trade threatens instability. In Guinea-Bissau, members of the logging and export association appeared on national television to threaten the Prime Minister for interfering with their business. As discussed in the following section, the revenues associated with the rosewood trade may put traders in a stronger position to enforce their will than the forestry officials charged with regulating the trade.

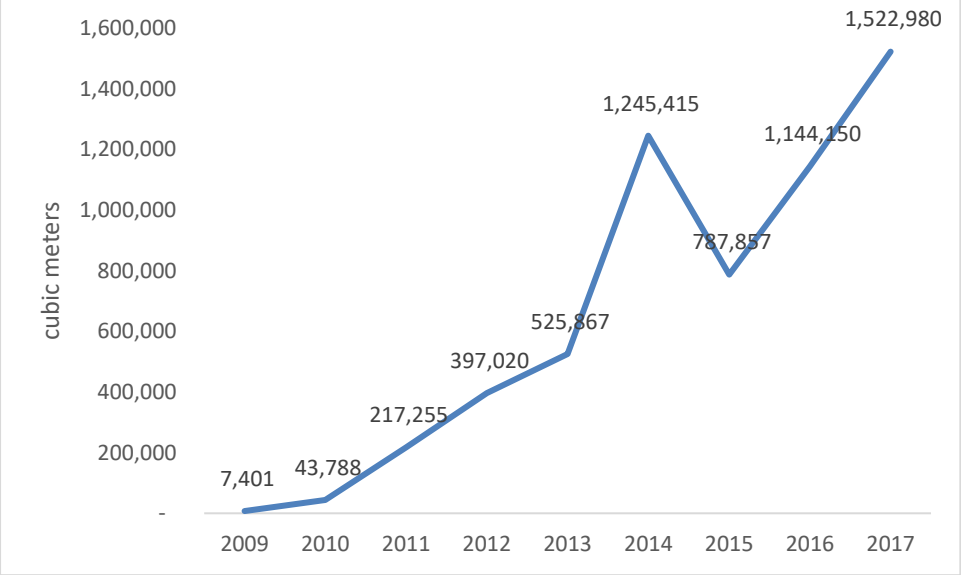
Trends

After a rapid growth in exports between 2009 and 2014, the market dipped in 2015 due to oversupply. The CITES Appendix II listing took effect in January 2017. It might be

[161] *These are managed by the Ministry of the Interior and include representation from the armed forces, the police, the intelligence service, the forestry department, and the customs authority.*

expected that such a listing would cause exports to decline, as exporting countries take time to review the sustainability of their exports. In fact, the opposite occurred: the volumes of *P.erinaceus* exported from the region actually increased after the Appendix II listing, reaching levels never seen before.

Figure 29: Cubic meters of *Pterocarpus erinaceus* logs imported from West Africa by Asian destination markets



Source: Elaborated from Trade Atlas and Comtrade data

In the past, it was clear that nearly all the rosewood received in Asia from West Africa was illegally exported, contrary to national log export bans, national species-specific controls, or other national regulations.[162] The CITES Appendix II listing, effective January 2017, has added a new component to this illegality. Now, CITES Management Authorities are authorizing exports of products prohibited for export under other national laws, in addition to non-existent or outdated non-detriment findings, in effect completely in contravention of CITES. In some cases, these authorisations appear to be much lower than the volumes reported received by the destination countries, and there are other reasons this wood is still illegal under national law. As shown above, 85% of the global exports of *P.erinaceus* in 2017 come from just three countries: Nigeria, Gambia, and Ghana, so these are the subject of the discussion below. Still, other countries have been prominent in the recent past, so resolving the illicit trade will require more than interventions in just these three countries.

In Nigeria, timber harvesting is regulated at the state level, with some states prohibiting all logging and some have few if any controls in place.[163] According the website of the Nigeria Customs Service, the export of "Timber (rough or sawn)" is prohibited.[164] There

[162] *See UNODC, World Wildlife Crime Report 2016.*

[163] *Ibid.*

[164] https://www.customs.gov.ng/ProhibitionList/export.php

is also a national ban on the export of round and roughly squared wood.[165] In addition, all exports are subject to tax that must be paid to the Central Bank of Nigeria under the Nigeria Export Service Scheme (NESS). Comparing data on NESS compliant exports, shared with UNODC, to the exports authorised by the CITES Management Authority of Nigeria for the period July 2017 to April 2018, it appears that over 90% of the trade reported by importers is illegal, as it was not authorised under Nigerian law.

In Gambia, the CITES Management Authority made available the export permit data for 2017. Comparing these to the trade data, it appears that 99.7% of the timber reported received by importers was not given an export permit by the Gambian CITES Management Authority. There was broad consensus among officials interviewed in Gambia that the vast majority of the wood exported from Gambia was illegally imported from Senegal. Senegal has a log export ban, and as such there should be no legal exports, and none of the exports from the Gambia were certified as re-exports. A review of the 2017 CITES legal trade database for Senegal (when available) will indicate whether any of this was permitted for export to Gambia.

Concern for the species in the region continues to be emphasized by CITES governing bodies. At Standing Committee 70, in the context of the Article XIII discussion for Nigeria, the Standing Committee:

> *… requested the Plants Committee to consider the inclusion of Pterocarpus erinaceous from all range States in the Review of Significant Trade and report its findings and recommendations to the 73rd meeting of the Standing Committee (SC73).*[166]

Priority measures

For many countries in West and Central Africa, large-scale timber exports were unheard of before the *P.erinaceus* boom began less than a decade ago. The sudden demand for rosewood has overwhelmed existing regulatory systems, resulting in widespread disorder. In countries like Nigeria, there are many overlapping authorities[167] attempting to regulate the timber trade at both state and federal level, most with extremely limited resources. Laws and regulations are confusing[168] and subject to sudden change[169] in response to pressures such as timber exporters demands or national elections. Officials in many countries in West and Central Africa do not understand the regulations of their neighbours or recognise their paperwork. Indeed, somewhat alarmingly, interviews

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[165] *Confirmed in interviews with senior forestry officials*

[166] *https://cites.org/sites/default/files/eng/com/sc/70/E-SC70-27-03-05.pdf; https://cites.org/sites/default/files/eng/com/sc/70/exsum/E-SC70-Sum-12-R1.pdf*

[167] *Even a national level, there is the National Park Service, the National Environmental Standards and Regulations Enforcement Agency (NESREA), National Agricultural Quarantine Service (NAQS), and the Forestry Ministry, including the CITES Management Authority. But most of forestry regulations are promulgated and enforced at a state level and must consider community authority over forested areas.*

[168] *For example, there is widespread disagreement over what constitutes a "squared log" as opposed to worked timber.*

[169] *As noted above, log export bans can be lifted and reinstated by executive authorities at will, as was the case in Sierra Leone and Gambia.*

conducted for this report show substantial differences of opinion on regulations between highly placed officials within the same country.

In the case of the Gambia, estimated illegal exports of rosewood (about US$100 million, as declared on import) are worth about half of the country's total exports,[170] about 10% of GDP,[171] and more than 20 times the budget of the Ministry of Environment, Climate Change and Natural Resources.[172] This is a very significant source of income for a developing country. It is difficult to ask developing countries to expend resources to reduce this source of income, even if it is in their long-term interest to do so. It is therefore incumbent on the rest of the world, and particularly importing countries, to protect this region by limiting imports to sustainable levels. At present, however, scientific studies are not widely available to determine what could be "sustainable". Broad surveys of the prevalence of this species in the relevant countries, in addition to externally supported non-detriment findings, would be extremely helpful in this regard.

[170] *US$239 million in 2016, according to UN COMTRADE data.*

[171] *US$964 million in 2016, according to the World Bank*

[172] *The 2018 budget of the Ministry was 229,769,529 Gambian Dalasi, or less than US$5 million, according to the Jan-April Budget Execution Report. During this period, the Ministry was only able to consume 9% of its budget, the lowest rate of expenditure of any Ministry.*

http://mofea.gm/directorates/budget

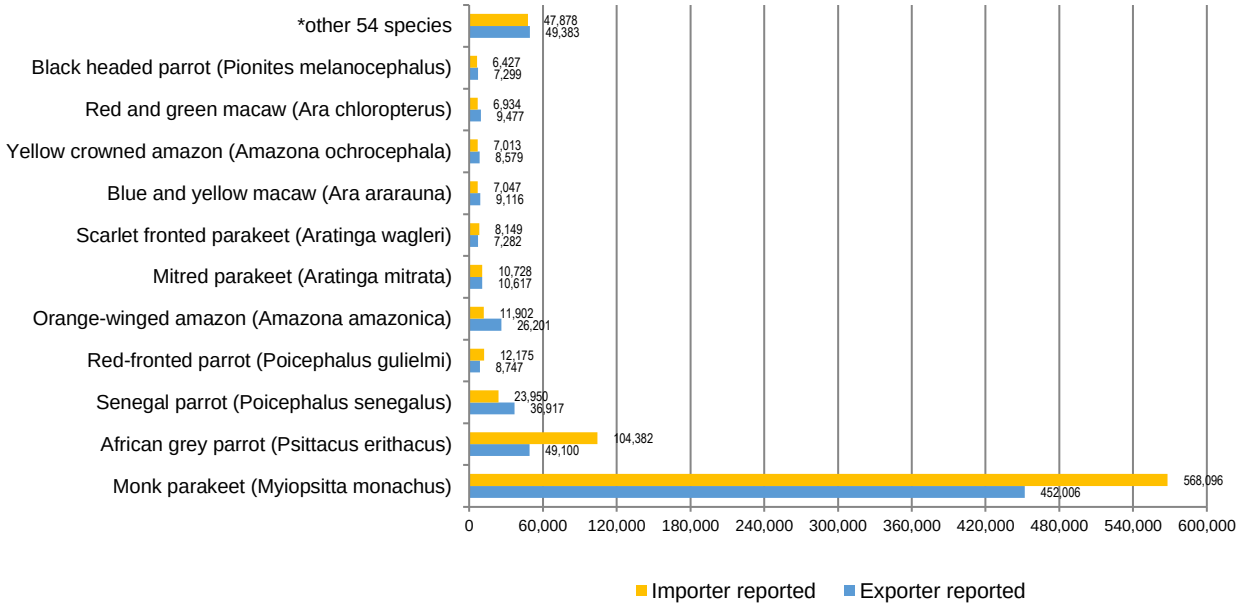
Parrots

Most of the international trade in live, wild-caught, CITES listed parrots[173] from West and Central Africa over the past decade has involved just three species: [174]

- the African grey parrot (*Psittacus erithacus*), [175] which has been listed on CITES Appendix I since 2017;
- the Senegal parrot (*Poicephalus senegalus*) listed on CITES Appendix II; and,
- the red-fronted parrot (*Poicephalus gulielmi*) listed on CITES Appendix II.

According to the CITES Trade database, during a ten-year period (2007 to 2016) these species accounted for around 140,000 parrots legally imported, out of about 800,000 live, wild-caught, CITES listed parrot imports worldwide (Figure 30).[176] Aside from the monk parakeet, these three African parrots were the most commonly traded wild caught species. A total of six parrot species from Central and Western Africa were legally traded during this time (Figure 31).

Figure 30: Share of the legal global trade of live wild sourced parrots by species, 2007-2016



Sources: UNEP-WCMC CITES Trade Database, 2007 to 2016, live Psittaciformes, wild sourced, commercial purposes, importer and exporter reported trade (does not include re-exports).

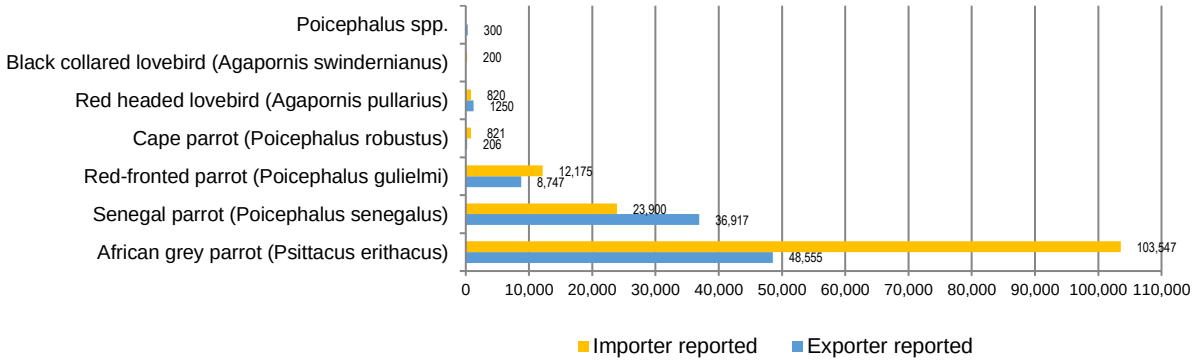
[173] *Approximately 350 parrots (including species and sub-species) are listed in CITES, of which 55 are listed in Appendix I and the remaining 300 are listed in Appendix II. Of these, 21 are found in Africa.*

[174] *According to CITES Species+, in addition to the Appendix I African grey, African parrots listed in CITES Appendix II include eight Agapornis spp., two Coracopsis spp. and 10 Poicephalus spp. Four additional species were previously listed in CITES until they were removed from CITES, two of which were found in Africa: Rosy-faced lovebirds (Agapornis roseicollis) and ring-necked parakeets which are also known as rose-ringed parakeets (Psittacula krameri).*

[175] The CITES Standard Reference for birds recognizes two subspecies of African grey parrots (*Psittacus erithnacus* and *Psittacus erithnacus timneh*). However, BirdLife International has recognized these as separate species, the African grey parrot (*Psittacus erithnacus*) and the Timneh's parrot (*Psittacus timneh*).

[176] Based on importer reported data on the CITES legal trade database, there were about 815,000 parrots traded, compared to around 675,000 parrots traded based on exporter reported data. This does not take into account unknown source or captive bred specimens. Although more than two thirds of the global volume were represented by just one species, the monk parakeet (*Myiopsitta monachus*), the trade appears to have collapsed in 2014, most likely due to an import ban in Mexico (the primary market destination).

Figure 31: Share of the legal trade of live wild sourced parrots from Central and Western Africa, by species, 2007-2016



Sources: UNEP-WCMC CITES Trade Database, 2007 to 2016, live Psittaciformes., wild sourced, commercial purposes, importer and exporter reported trade (does not include re-exports).

The trade in parrots involves both domestic markets (in West and Central Africa) and international markets, which can act independently or be linked to one another. Typically, high value species are sold on international markets, while low value parrots are relegated to the domestic market. Although domestic trade occurs in many range states, the volume appears to be at low to moderate levels, but negligible when compared to the volume of the international trade. The domestic market caters to buyers for both non-consumptive (i.e. pets) and consumptive uses (i.e. food, body parts for medicinal uses).[177] Parrots that are prohibited in international trade are not necessarily prohibited in domestic trade, so wild-sourcing may be conducted openly. In these cases, all acts related to the illicit trade prior to the point of actual export may be legally conducted, placing the burden of enforcement on officials inspecting exports.

Wild caught parrots are rarely used as pets, as they typically remain feral unless hand reared.[178] But despite the fact that parrots are widely bred in their destination markets, the need for genetic diversity has continued to feed demand for wild caught breeding stocks.[179] This stock is cheap to source, as trappers are typically paid as little as US$10 per bird (e.g. African grey parrot).[180] Once in the destination country, it is difficult to physically distinguish wild-caught from domesticated birds, although work is underway to make this determination scientifically possible.[181]

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[177] *CITES AC22 Doc. 10.2 Annex 1; Tamungang, S.A. and Cheke, R.A. (2012), Population status and management plan of the African grey Parrot in Cameroon. Ministry of Wildlife, Cameroon. Report 002/2008; McGowan P. 2001. Status, Management and Conservation of the African Grey Parrot, Psittacus erithacus in Nigeria. CITES, Geneva, Switzerland.*

[178] *Schmid, R., Steiger A. and Doherr M.G.* (2005).The influence of the breeding method on the behaviour of adult African grey parrots (Psittacus erithacus*). Applied Animal Behaviour Science, 98, 293–307. Aengus, W.L., and Millam, J.R. (1999).* Taming parent-reared orange-winged amazon parrots by neonatal handling. *Zoo Biology 18:177–187. Wallace, M.P. (1994). Control of Behavioral Development in the Context of Reintroduction Programs for Birds. Zoo Biology 13:491-499.*

[179] *CITES CoP17 Prop. 19.*

[180] *McGowan (2001); Chupezi, T.C., Ndoye, O., and Mpele, T.O. 2006. Commodity-Chain Analysis for the Capture and trade in the African grey parrots (Psittacus erithacus erithacus) in Cameroon. Prepared for Policy and Distributional Equity in Natural Resource Commodity Markets: Commodity Chain Analysis as a Policy Tool Project. Institutions and Governance Program World Resources Institute.*

[181] Symes, C., Skhosana, F., Butler, M., Gardner, B., and Woodborne, S. (2017). Isotope ($\delta^{13}C$, $\delta^{15}N$, $\delta^{2}H$) diet-tissue discrimination in African grey parrot *Psittacus erithacus*: implications for forensic studies. Isotopes in Environmental and Health Studies. Vol 53(6).

Although the African grey parrot is now listed in CITES Appendix I, three countries took reservations on the listing: one source country (DRC) and two destination markets (Saudi Arabia and the United Arab Emirates). As a result, these three countries can legally trade African grey parrots as if the parrots are still listed in Appendix II. This has been a point of vulnerability in the past when zero quotas were implemented for some countries but not in others. For the DRC, a CITES suspension on trade in African grey parrots remains in place, recommending that all Parties suspend commercial trade in specimens of African grey parrots from the DRC (CITES Notification to the Parties No. 2016/021, recently replaced by CITES Notification to the Parties No. 2018/081) dated 1 November 2018)[182]. Therefore, Saudi Arabia and the United Arab Emirates should not be accepting any imports until the suspension is lifted. The DRC has voluntarily placed its CITES reservation on hold and issued a moratorium on exports until it can make inventories and a management plan for the species.[183] No export permits have been authorized by the DRC since the CITES Appendix I listing and export quotas have not been established by the DRC because scientific population surveys have been hampered by financial and logistical problems.[184]

Trafficking routes and techniques

Since the domestic harvest and trade of parrots is legal in many range states, the illegal parrot market typically involves many of the same players as the legal market. Trappers are at the beginning of the supply chain and are either part-time seasonal trappers or full time professional trappers.[185] Licenses or permits may be required of trappers in some countries, but interviews in 2013 by Birdlife revealed that many operated without valid licences or permits, paid little attention to closed periods of capture, and were unaware of CITES quotas and restrictions.[186] Unlike middlemen and exporters who know their actions are illegal, some trappers may be ignorant and unaware that the parrots they capture are likely destined for international markets in violation of regulations. In such cases trappers are poachers but are unaware of the consequences of their actions.

Trappers capture live African grey parrots in several ways:

- climbing trees to take chicks directly from the nest,
- using nets at roost or feeding sites,
- setting up glue traps (i.e. glue on tree branches) in the trees alongside parrot decoys.[187]

Non-targeted species (e.g. red-fronted parrots, *Poicephalus gulielmi*) can also be captured in for example, glue traps, and these birds are sold at much lower prices (e.g. 27.44 Euro compared to 60.49 Euros for an African grey in Cameroon in 2012). An

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[182] https://cites.org/sites/default/files/notif/E-Notif-2018-081.pdf

[183] *The regulatory act used to implement the moratorium on exports is expected to be adopted in October 2018, but no further information on this was available at the time of writing.*

[184] *CITES SC70 Doc. 27.3.2.1*

[185] *Tamungang and Cheke (2012); Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), 2013. Strengthening Capacity for Monitoring and Regulation of International Trade of African Grey Parrot. Report prepared by BirdLife Africa Partnership Secretariat. Geneva, Switzerland, 104 pages.*

[186] *CITES, 2013.*

[187] *Tamungang and Cheke (2012); CITES (2013); CITES SC69 Doc29.4*

increase in international trade of this species has been observed, with most exports being from Mali (a country that is not known to have red-fronted parrots). Whether this is the beginning of a new market for red-fronted parrots or whether these parrots are being sold as a result of non-targeted capturing (e.g. caught while trapping for African greys) is unclear. Either way this new trade should be investigated and monitored to ensure it is not an indicator for the poaching of African grey parrots. Captured parrots are placed in baskets or cages and transported to collection sites via road or boat and kept at collection sites until local buyers come to purchase them, or local buyers place an order with trappers and give them a cash advance. The local buyers then collect the birds and prepare them for transport. Prior to the CITES Appendix I listing, exporters would then prepare the birds for export , passing them on to by importers who then sell the parrots to buyers in the foreign country. Additional players included government authorities that issued permits and documentation (either for domestic or international purposes) and transportation companies (e.g. airlines for domestic or international flights).[188]

Since it is difficult to transport parrots at sea, they are usually shipped by air to international destinations in large crates. Transportation routes are dependent on the flight routes available and are not necessarily strategic choices by the traffickers. However, depending on the destination, smugglers are likely to use the shortest route possible, since parrot mortality increases with more time in transport. Under ideal conditions, it is difficult to transport wild birds internationally, and smuggling conditions are rarely ideal. Parrots are highly susceptible to stress and poor husbandry at various stages along the trade chain, which often results in injured, sick, or dead parrots. Furthermore, chicks taken from the nest at too young of an age are not likely to survive, and mortality rates can range from 9% up to 48% (i.e. bird mortality from trappers before reaching middlemen).[189] The pre-export mortality of African grey parrots was estimated to be up to 40% (i.e. bird mortality from middlemen to time of export) and then an average of 10% or more in air cargo transport crates.[190] Therefore mortality associated with the overall trade can be as high as 66%.[191] This means the number of parrots removed from the wild for international trade was likely much higher than what was actually documented by CITES trade data. As a result, the number of parrots legally imported is a fraction of those that were trapped from the wild.

In countries where domestic sales of parrots are legal, collection from the wild may also be legal, and possession of parrots certainly is. In these cases, it may be difficult to stop traffickers until their intent to export becomes clear, often at border crossings or airports. Parrots have been seized at capture sites, collection sites, during local transport (by road or boat), at airports waiting for export, during connecting flights or at the destination country upon import.

African grey parrots were legally traded until 2017, and seizures indicate that the same countries of origin remain the source of illegally traded birds: the DRC, Cameroon and

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[188] *Ibid.*

[189] *CITES (2013); Tamungang and Cheke (2012); CITES SC69 Doc29.4; McGowan (2001); Hart, J. 2013. Congo's quintessential parrot. PsittaScene Winter: 16-19.*

[190] *CITES (2013); Hart (2013).*

[191] *McGowan (2001); McGowan, P. 2008. Case Study 1 Psittacus erithacus (Country Guinea). Workshop Case Studies WG 6 Birds. CITES NDF Workshop Mexico; Hart (2013).*

Republic of Congo.[192] The Central African Republic, Guinea, and Mali may play a lesser role in the illegal trade. Prior to the Appendix I listing, cross border smuggling was identified with parrots being poached in range states by both national and foreign smugglers. In Cameroon, parrots were smuggled out of the country into CAR, Chad, Equatorial Guinea, Ghana, and Nigeria.[193] Since late 2016, the DRC has conducted several operations to stop parrot poaching in Kindu, Kikwit, Kinshasa and Kisangani, with multiple seizures occurring in 2018.[194] The market destination of the seized birds was not identified.

In 2017, the Ministry of Forest Economy, Sustainable Development and Environment (MEFDDE) in Republic of Congo conducted an observation and assessment mission to measure the extent of poaching and illegal trade, document seizures, identify poacher profiles and cross-border routes, and raise awareness among local communities about the poaching of African grey parrots. The mission focused on the Sangha Department, specifically the towns of Kabo and Ouesso and areas downstream on the Sangha river to the Pikounda district. They observed a significant increase in the poaching of African greys in northern Republic of Congo , specifically near two national parks that host large groups of parrots (Nouable-Ndoki National park and Odzala-Kokoua National park). [195] Whether the increase of seizures is due to the up listing of African grey parrots to Appendix I or a result of increased enforcement efforts in the Republic of Congo remains unclear. Most Cameroonian poachers were apprehended on the Sangha river where it bordered the Republic of Congo, because poachers captured parrots in the neighbouring forests of Kabo and Kounda. The Republic of Congo also observed an increase in the average price paid to poachers, from US$15 per bird in 2016 to US$85 per bird in 2017, and a change in the poacher's profiles in late 2017 which consisted of individuals from the DRC and Cameroon who are heavily armed and buy off local trappers.[196]

In summary, since the CITES Appendix I listing, parrots have been seized from Cameroonian poachers in the Republic of Congo near the border with the DRC, in Cameroon from Ghanaian poachers, and in Turkey where the parrots were smuggled from the DRC.[197] According to official World Wise records, as well as CITES reporting, the origin/source of seized African grey parrots were from Cameroon, the Republic of Congo, and the DRC (Figure 32). Since the Appendix I listing, the Republic of Congo and the DRC have seized additional parrots and further data from LAGA also reported a seizure of 218 African grey parrots in Cameroon in 2017 by Ghanaian traffickers, with parrots ready for export to Ghana.[198] Since cross border smuggling has been documented, it is highly possible that parrots seized in some range states are actually parrots that come from neighbouring range states. As such, it is impossible to determine the exact origin of the seized parrots and instead are considered source country of seizure in Figure 32. Seizures in Lebanon, Oman, Pakistan and other countries did not

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[192] World WISE database, CITES SC69 Doc.29.4; CITES SC70 Doc. 27.3.2.1; LAGA. 2017.The last great ape organization. LAGA Cameroon 2017 Annual Report. http://www.laga-enforcement.org/Portals/0/Activity%20reports%202017/LAGA_Annual_Report%20%20%202017..pdf.

[193] Tamungang and Cheke (2012).

[194] CITES SC67 Doc.12.2.2; CITES Sc70 Doc.27.3.2.1

[195] CITES SC69 Doc.29.4

[196] CITES SC69 Doc.29.4

[197] CITES SC69 Doc 29.4; LAGA (2017).

[198] World WISE, CITES SC69 Doc.29.4; CITES SC70 Doc. 27.3.2.1; LAGA (2017).

provide information on the source of the shipment, so they are also included in Figure 32.

The destination for the majority of seized parrots is not available since many parrots have been seized in either the country of origin or in the country of transit. In some cases, the destination has been indicated from flight documents; while others have been actually seized in the destination markets. Based on the limited information available, the primary destinations were Bahrain, Kuwait, Nigeria, Singapore and United Arab Emirates (Figure 33).

Figure 32. Country of seizure - African grey parrots, 2007-2018

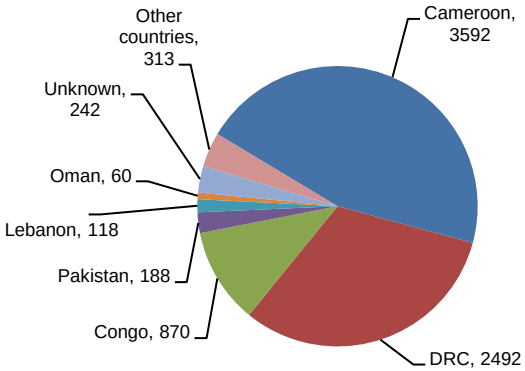
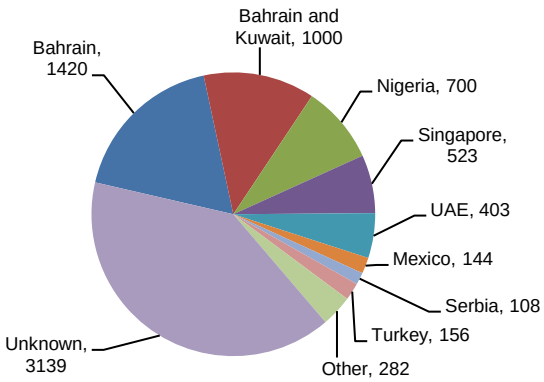


Figure 33. Transit/Destination country of seizure



Source: World WISE , CITES SC69 Doc.29.4; CITES SC70 Doc. 27.3.2.1; LAGA (2017).

Note: Source country is considered the origin of the shipment that was identified by the seizing country or the seizing country itself. In many cases the seizing country did not provide information on the origin of the shipment, most likely the information was not available.

It appears that parrots sourced from West and Central Africa, as well as other regions globally, are increasingly being marketed through the internet. Such “virtual” markets are difficult to monitor and have yet to be properly regulated. However, like most E-commerce of wildlife, the number of offers for sale does not necessarily correspond to the number of parrots available for sale. It is often unclear whether the vendor has stocks of birds on hand or whether they are using stock images to solicit orders, and only sourcing the animals once they have the order in hand. This makes prosecuting e-commerce offences extremely difficult. Furthermore, website domains may not be hosted in same country where the parrots are being traded and even if they are, it may not be illegal to post advertisements.

Since the Appendix I listing, it is evident that illegal trade is occurring across borders, which indicates international demand. What is unclear is whether the amount of parrots for sale in domestic markets will increase given the African grey parrots can no longer be exported internationally by all range states, except the DRC, due to its reservation of the listing in Appendix I, and the corresponding CITES Resolution 4.25,[199] which states that any Party having entered a reservation with regard to any species included in Appendix I should treat that species as if it were included in Appendix II for all purposes, including documentation and control –trade can only take effect once the CITES suspension has been lifted, which is subject to a number of requirements,

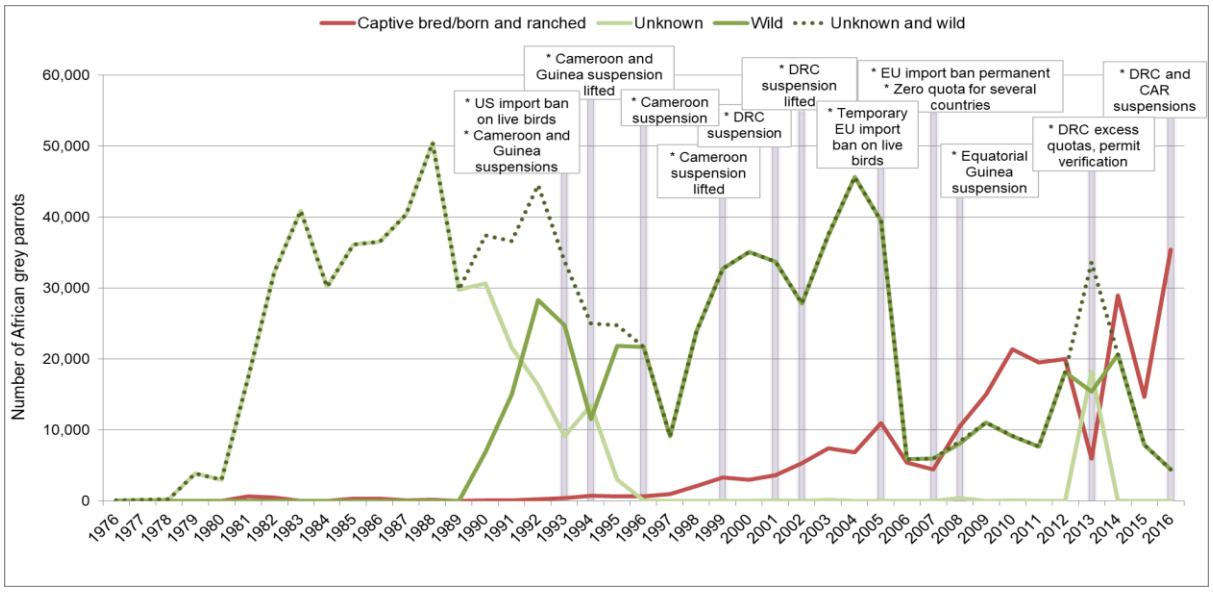
[199] *CITES Resolution 4.25 (Rev CoP14) https://cites.org/sites/default/files/document/E-Res-04-25-R14.pdf*

including scientifically based non-detriment findings. Alternatively, there may be a collapse in domestic trade, because the majority of domestically traded birds were meant for export out of the country, or whether cross border smuggling will increase once the DRC suspension on trade is lifted.

Trends

International trade in African grey parrots has been greatly influenced by regulatory actions, most notably the 1993 US and 2005 EU import bans on all live birds, and from species specific regulatory actions under CITES. According to the CITES Trade database, prior to the US and EU bans, imports of African grey parrots ranged from 30,000 to 50,000 wild parrots in any given year from 1982 to 1993. After the US import ban, several actions were taken to regulate the international trade in African grey parrots (e.g. zero quotas, CITES trade suspensions)[200], which caused global imports to decline to a low of 9,000 wild parrots in 1997. After this, the market began to recover, with the EU absorbing a large portion of the previous US demand. Global imports reached almost 46,000 wild parrots in 2004; however, the market again collapsed after the EU import ban, with less than 6,000 parrots imported globally in 2006. The market slowly began to recover yet again as demand increased in Asia and the Middle East, reaching almost 21,000 parrots globally imported in 2015. CITES suspensions and later an up listing to Appendix I in 2017 resulted in another decline, to less than 5,000 parrots imported in 2016 (Figure 34).[201]

Figure 34. Trend of the trade in African grey parrots and policies affecting its trade, 1976 to 2016.



Source: UNEP-WCMC CITES Trade Database, live *Psittacus* spp., importer reported data, commercial purposes, legal trade.

Note: CITES Trade data for 2017 is not yet available. However, given the Appendix I listing was implemented in 2017 and the DRC still has a valid suspension, there should be no trade in wild-sourced parrots and should instead comprise of captive bred specimens from registered facilities.

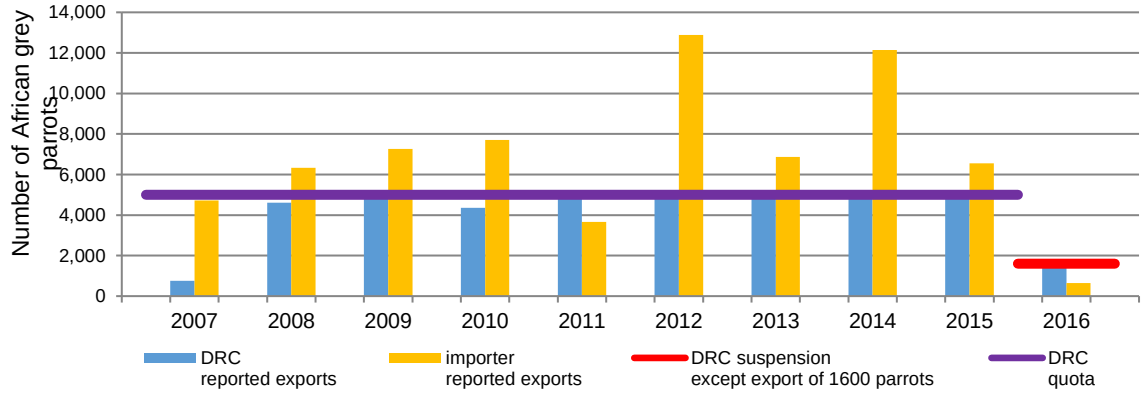
[200] *CITES Notifications No. 746, 775, 794, 797, 945, 996*

[201] *CITES Notifications No. 2008/052, 2013/051, 2016/018, 2016/021, 2017/063*

Issues with the legal parrot trade in Western and Central Africa were first evident in the early 1990's, when African grey parrots were selected for the CITES Review of Significant Trade (RST). This review was also repeated in later years. Poaching and smuggling continue despite the efforts being made to protect the species, regulate the legal trade, and curb the illegal trade from West and Central Africa. As a result, countries in Africa have observed declines in the species.[202]

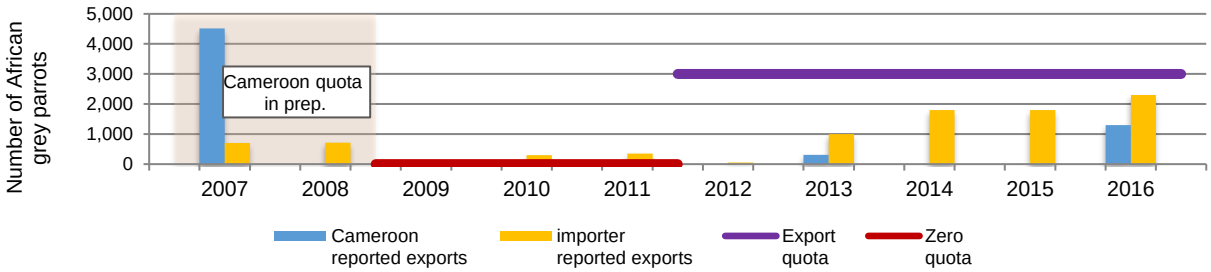
Despite the existence of export quotas and suspensions on trade, some countries still exported African grey parrots in excess of their quotas and during zero quotas, valid suspensions and voluntary export bans (Figure 35, Figure 36 and Figure 37), the more prominent being Cameroon, DRC, and Guinea.[203]

Figure 35. Commercial trade in wild sourced African grey parrots from the DRC, 2007-2016



Sources: UNEP-WCMC CITES Trade Database, live Psittacus spp., wild sourced, commercial purposes.

Figure 36. Commercial trade in wild sourced African grey parrots from Cameroon, 2007-2016

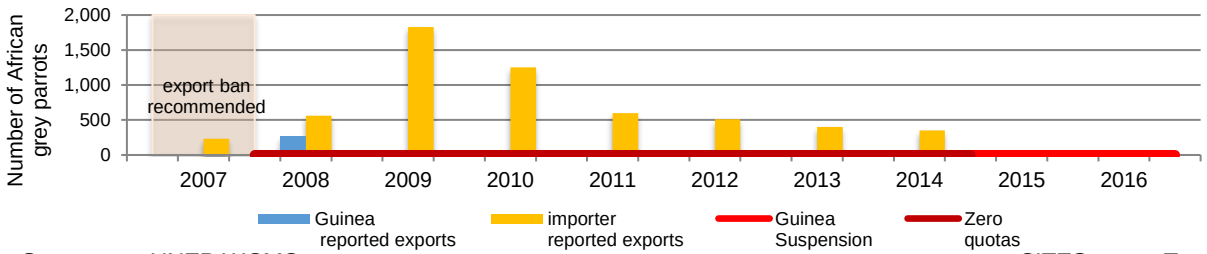


Sources: UNEP-WCMC CITES Trade Database, live Psittacus spp., wild sourced, commercial purposes.

Figure 37. Commercial trade in wild sourced African grey parrots from Guinea, 2007-2016

[202] ***Martin, R.O.,*** *Perrin M.R., Boyes R.S., Abebe Y.D., Annorbah N.D., Asamoah A., Bizimana D., Bobo K.S., Bunbury N., Brouwer J., Diop M.S., Ewnetu M., Fotso R.C., Garteh J., Hall P., Holbech L.H., Madindou I.R., Maisels F., Mokoko J., Mulwa R., Reuleaux A., Symes C., Tamungang S., Taylor S., Valle S., Waltert M., Wondafrash M. 2014. Research and conservation of the larger parrots of Africa and Madagascar: a review of knowledge gaps and opportunities.* Ostrich*, 85(3), 205–233.*

[203] *Importers will either report their imports on actual imports or based on permits issued. The use of cancelled and re-issued permits in the DRC could account for some of the discrepancy with importer data, if importers reported trade on permits issued rather than actual trade. However, Singapore is a country that reports imports based on actual trade, and there are large discrepancies between what the DRC reported as exports and what Singapore reports receiving.*



Sources: UNEP-WCMC CITES Trade Database, live Psittacus spp., wild sourced, commercial purposes.

CITES legal trade data show many irregularities, including large discrepancies between exporter and importer reported figures (Figure 38). For example, during 2007 to 2016 the Republic of Congo reported the export of 62 African grey parrots (no source provided), while importers reported just over 20,000 wild-sourced African greys from the Republic of Congo during this time. Some countries have issued export permits for wild-sourced African grey parrots despite having few if any wild populations (e.g. Mali, Benin, Togo).[204] Uncertainties regarding the source of "captive-bred" parrots arose during the 2006 RST and, due to low response rates, the topic arose again in 2011 and 2012.[205] Falsified, fraudulent, and re-used permits could also explain some of the discrepancy between importer and exporter data.[206] For instance, in 2016 (after the CITES trade suspension for the DRC was issued), Thailand requested confirmation on an import of 200 African grey parrots. Upon investigation, it was revealed that the original DRC export permit was granted for 100 red-fronted parrots. The permit was falsified and the species name and quantity of birds was altered.[207]

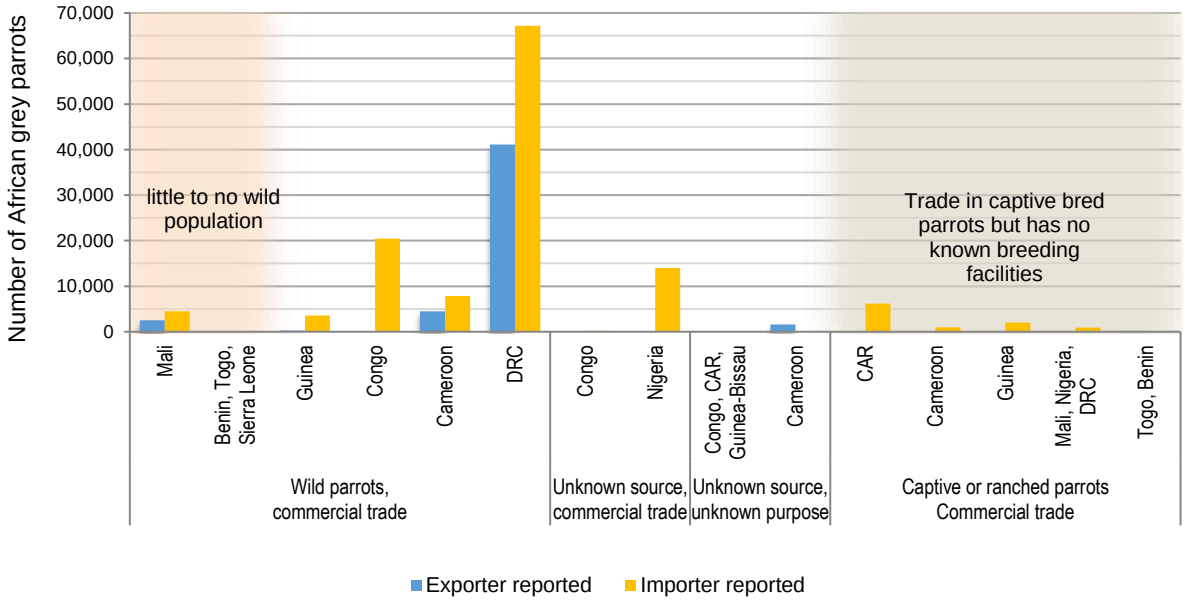
Figure 38. Discrepancies in the African grey parrot trade data from range states, 2007-2016

[204] *UNEP-WCMC CITES Trade Database; CITES SC67 Doc 12.2.1; Martin et. al. (2014).*

[205] *CITES AC22 Doc.10.2 A1; CITES Notification No. 2011/035; CITES AC26/PC20 Doc. 7.Annex 5; CITES AC27 Doc12.4; Martin et. al (2014).*

[206] *In 2016 the DRC indicated it ceased the practice of cancelling and re-issuing permits in the DRC, which has been confirmed by changes in DRC legislation in 2017. CITES SC67 Doc 12.2.2; CITES SC69 Doc. 29.2.2; CITES SC70 Doc. 27.3.2.1*

[207] *CITES SC67 Doc 12.2.1*



Source: UNEP-WCMC CITES Trade Database, 2007 to 2016, live Psittacus spp., source (wild, captive bred, unknown), purposes (commercial trade, unknown trade), importer and exporter reported trade (does not include re-exports).

Since the Appendix I listing of the African grey parrots, only three countries have registered captive breeding facilities with the CITES Secretariat: the Philippines, Singapore, and South Africa. Range states have not registered captive breeding facilities with the CITES Secretariat.[208] Commercial trade in Appendix I species is generally prohibited, unless it meets Article VII, paragraph 4 of the Convention (Exemptions and Other Special Provisions Relating to Trade regarding Appendix I specimens bred in captivity for commercial purposes). This exemption is implemented through the registration of operations that breed Appendix I specimens in captivity for commercial purposes. Once a Party registers its captive breeding facilities with the CITES Secretariat, specimens from the registered breeding facilities would then be treated as if they were instead Appendix II species.[209]

According to the World WISE database, seizures of African grey parrots began to increase in the mid to late 2000s, peaking in 2007 and 2010, a possible response to increased restrictions on the legal trade. The majority of African grey parrots seized during these peaks were from Cameroon: 1,220 parrots in 2007 (85% of all African greys seized for the year) and 2,000 parrots in 2010 (74% of all African greys seized for the year). In 2007, CITES recommended a zero quota for several countries including Cameroon. However, this was not published under the CITES quotas as it was considered “in prep” at the time, while by 2010 the zero quota had been published already for a few years. So, the illegal trade in 2010 may have been a consequence of the measures taken to regulate the legal trade (zero quotas).

According to official data (World Wise and CITES), more African grey parrots have been seized since the late 2016 than in any other period in the past decade (e.g. 3,000 birds

[208] *CITES Convention (Article VII, paragraph 4).*

[209] **Register of captive-breeding operations (https://cites.org/eng/common/reg/e_cb.html); Resolution Conf. 12.10 (Rev. CoP15) Registration of operations that breed Appendix-I animal species in captivity for commercial purposes; CITES Frequently Asked Questions (FAQ) (https://www.cites.org/eng/resources/faq.php).**

seized in less than 3 years from late 2016 to mid-2018 compared to 5,000 birds seized in almost 10 years from 2007 to late 2016. If one were to apply the highest mortality rate (66%) to the number of parrots legally traded during 2007 and 2016 (i.e. 104,000 parrots) and parrots seized (7,900 parrots) to account for parrots that died along the trade chain, the international trade could account for almost 328,000 wild African grey parrots taken from the wild for commercial purposes since 2007.[210] Meaning around 216,000 parrots would have died at some point along the trade chain. This does not take into account captive bred parrots or for example the 14,000 parrots with unknown source reported by Bahrain (import data) from Nigeria (zero reported in export data) in 2013.

Priority Measures

Falsified or fraudulent use of permits, reduced or zero quotas, exports exceeding quotas, voluntary export bans, suspensions on trade, and more recently the CITES Appendix I listing, all highlight the continued problems surrounding the trade for African grey parrots.

Given the widespread captive breeding of African parrots, the popularity of this breed around the world, and the lack of state presence in some of the harvest areas, controlling the illegal trade is extremely challenging. With the species now listed in Appendix I, there is the risk that wild-sourced parrots will be passed off as captive-bred parrots or mixed before export. Captive breeding facilities will need to be closely monitored to ensure they are registered as captive breeding facilities and are in compliance with rules set by CITES regarding captive breeding of Appendix I species. Prompt reporting of Annual reports by both range states and importing countries can help identify potential issues before several years pass (e.g. importer reported trade is often higher compared to exporter reported trade, trade in excess of quotas, trade from countries that do not have registered breeding operations, etc.). E-commerce continues to be an ongoing issue regarding the advertising of parrots but CITES Parties might benefit from implementing strategies as recommended in paragraph 11 and 12 of CITES Resolution Conf. 11.3 (Rev. CoP17) Compliance and Enforcement.

The greatest weakness in the trafficking chain is the reliance on air flights from remote areas. If these flights were monitored and controlled, it would become difficult logistically to extract wild parrots in a cost-effective manner. Given the capacity challenges of local governments in the extraction areas, international assistance would be required to bring about these controls. Smaller domestic airports in range states that connect to international airports should be targeted for increased enforcement efforts.

Since 2017 all international trade has been illegal with no loopholes for poachers to exploit, so the country of origin for the species is irrelevant since all exports are illegal. However, once the DRC suspension is lifted, poachers will again have a loophole to exploit. Zero quotas were not effective in the past partly because some countries were still legally able to export the parrots which allowed poachers to circumvent regulations (e.g. parrots poached in countries with zero quotas were smuggled to neighbouring countries to be exported as the neighbouring country exports). This makes it extremely

[210] *According to CITES importer reported data, 103,547 wild sourced African grey parrots were legally traded for commercial purposed during 2007 until 2016. According to available seizure data, 7,875 parrots have been seized during 2007 until mid-2018. One of the higher mortality rates (66%) would mean that 216,290 parrots died before reaching their import destination, meaning 327,712 parrots could have been taken from the wild. A lower mortality rate of 35% would mean that 59,996 parrots died before reaching the import destination, meaning 171,418 parrots could have been taken from the wild*

difficult to determine the actual origin of the species. This vulnerability also applies for the Appendix I listing of the African grey parrots. Range states will need to work together and invest more enforcement efforts at border crossing, especially in areas where African grey parrots populations are abundant and where poachers can take advantage of river systems to transport birds (e.g. along rivers bordering countries and borders near National parks or forests with high parrot densities). Some areas have already been identified (e.g. forests of Kabo and Kounda in Congo, and Nouable-Ndoki National park and Odzala-Kokoua National park). Another point of intercept is at international airports which is the only way parrots can be transported to foreign international markets. The use of sniffer dogs could be highly efficient in this setting, a strategy already used by various countries to intercept drugs and even wildlife products.

It is also incumbent on international exotic pet traders to protect their industry from illegal supply. The importance of the Arab Peninsula for parrot trafficking is illustrated in the seizure data, and traders there must be especially conscientious in securing their supply chain. South Africa is another key breeding centre that must be situated at the core of any international solution.

Although domestic trade is outside of CITES mandate, it is a source of vulnerability. If African grey parrots are legally allowed to be trapped, traded and sold domestically it is very difficult to identify poached birds within a country because trappers can argue the birds are for domestic use. This means that the parrots must first cross a border point to be identified as “poached” parrots or be at an airport on route to a destination. Countries that want to maintain a domestic harvest and trade should consider adopting strategies to avoid birds entering the international market, such as a regulated permitting/tagging system. This can also help to regulate the domestic harvest and trade and collect valuable information on the species which can be quite informative while developing management policies. It can also help to ensure the governments are receiving monetary benefit of the domestic trade (e.g. license and permit fees). As the site of parrot sourcing shifts as flocks are exhausted, international monitoring of the trade is essential to keeping extraction within sustainable limits.

This report has, through four species-specific case studies (ivory, pangolins, rosewood, and parrots), highlighted the challenges involved in protecting the wildlife of West and Central Africa from criminal predation. Though many more illegal markets could be discussed, these four illustrate several of the cross-cutting issues. Among the most prominent are:

- Diffuse, complicated, and outdated legislation, with light penalties for serious crimes in some instances;
- Regulations subject to change by executive order, creating a situation of high uncertainty for traders, international partners, and local law enforcement agencies;
- Lack of coordination between the many national agencies with a stake in protecting national resources;
- Uncertainty within and amongst national authorities on rules and regulations;
- Non-standard paperwork that is unsecured, easily forged, and not recognized, even in neighboring countries;
- Demand for wild sourced products emerging before regulatory mechanisms can be devised;
- Substantial uncertainty about wildlife populations and range;
- Lack of border security, rendering certification of national origin difficult to effectuate with integrity;
- A general lack of enforcement resources relative to the size of the task;
- Widespread corruption.

National legislation, regulations, and enforcement mechanisms should be reviewed and rationalized. Laws intended to implement CITES should be fully compliant with standards, and the United Nations Convention on Transnational Organized Crime (UNTOC) and the United Nations Convention against Corruption (UNCAC) should be implemented. Penalties should be made commensurate with the impact of the offence and, where appropriate, punishable by a maximum deprivation of liberty of at least four years or a more serious penalty, constituting “serious crime” under the United Nations Convention on Transnational Organized Crime making them predicate offences. Overlapping mandates of enforcement agencies should be clarified, and, where appropriate, resources concentrated in a single designated enforcement authority. Roles of national and local authorities should be clarified and, ideally, a single set of regulations enforced by each.

For example, as further elaborated in the rosewood chapter, there are a number of national authorities in Nigeria that are involved in various aspects of wildlife and forest crime, while most forestry authority is devolved to the state level. This results in a confusing patchwork of regulatory regimes that undermines conservation objectives and depresses orderly resource extraction. In addition, the initial penalties for wildlife crime are disproportionate to the damage inflicted by the offence. The matters related to Nigeria have been addressed extensively, including a comprehensive discussion by the

CITES Standing Committee at SC70[211], on the implementation of Article XIII of the CITES Convention. The Standing Committee recommended a suite of measures to be taken in the country which should be pursued.

In addition to the formal law, the countries of the region should develop policy instruments for tackling wildlife crime, such as national wildlife crime strategies and action plans. These strategies must be more than wish lists for enforcement authorities and should include specific benchmarks and timeframes. Toward this end, the national authorities could make use of the different tools available through ICCWC, particularly the ICCWC Wildlife and Forest Crime Analytic Toolkit[212] and the ICCWC Indicator Framework for Wildlife and Forest Crime.[213]

Based on evidence drawn from enforcement efforts, these strategies should look across species to address the specific core drivers of the illicit wildlife trade in each country, involving the full range of governmental powers. It vital that wildlife crime not be treated only as a law enforcement or an environmental issue. Ministries of Commerce, Trade, Labour, and Land Use; national tax authorities; Customs and Maritime authorities; traditional leadership bodies; and those involved in social and economic development all must be included.

While these national efforts are necessary, the research conducted for this report has highlighted the regional nature of wildlife crime. In addition to rapid cross border movements within the ECOWAS free trade area, the species flows examined in this study show large volumes of illicit trade between Central and West Africa, such as the flow of rosewood, pangolins, and ivory from Cameroon to Nigeria. Studies of other contraband flows in the region show that crackdowns on trade emanating from Nigeria displace the flows to ports in Benin and Togo.[214]

Once the key national strategies are in place, they can be reconciled to create a regional strategy. To some degree, a regional wildlife crime strategy will of necessity be comprised of species-specific strategies. As the preceding case studies illustrate, each species product has its own unique qualities and dynamics. For example, a much wider range of harvesters are able to hunt pangolins than hunt elephants. Rosewood, which is exported in hundreds of containers, must in some way disguise itself as legitimate trade. Transport of live parrots is limited to means that do not result in disastrous mortality levels. Each market provides its own challenges and points of vulnerability and should be planned for accordingly.

Some countries of the region already have gained some experience with wildlife crime strategy generation through the National Ivory Action Plan (NIAP) process.[215] Executing these NIAPs should be a first priority and could provide the basis for a broader wildlife crime action plan. The international community can provide guidance, based on a global

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[211] https://cites.org/sites/default/files/eng/com/sc/70/exsum/E-SC70-Sum-12-R1.pdf

[212] https://www.unodc.org/documents/Wildlife/Toolkit_e.pdf

[213] https://cites.org/sites/default/files/eng/prog/iccwc/E-ICCWC-Ind-FW-Assessment_guidelines_and_template_clickable-final.pdf

[214] See, for example, UNODC, Transnational Organized Crime in West Africa: A Threat Assessment. Vienna: UNODC, 2013: https://www.unodc.org/documents/data-and-analysis/tocta/West_Africa_TOCTA_2013_EN.pdf

[215] Resolution Conf. 10.10 – Annex 3 (Rev. CoP17)

assessment of wildlife crime flows, on how these strategies and action plans should be formulated and executed.

Strategy must be based in information, and the countries face information deficits on many levels. In particular, investment in wildlife population assessment mechanisms is essential for participation in CITES. Non-detriment findings must be based on current empirical data, and processes need to be in place to generate these data. A broad assessment of wild resources could include species not currently included in the CITES Appendices so that unsustainable extraction can be brought to international attention. Mechanisms for monitoring the full supply chain, from harvesting to export, should be put in place.

For example, as highlighted in the rosewood chapter, interviews with experts and authorities in the region found that few countries that are currently exporting *Pterocarpus erinaceus* have recent survey data on existing commercially exploitable stands. In the case of Gambia, for example, interviews with senior officials showed that there was very little knowledge of existing stands. The pace of rosewood extraction has been so rapid that few countries have had the time or the capacity to evaluate the environmental impact. International assistance may be needed to help generate sound non-detriment findings for species where significant trade has been noted.

Once developed, law enforcement, population, and trade data could be harmonized to create a regional monitoring mechanism. Given the rapid proliferation of hand-held technology even in the poorest countries, it is possible that that incident information (such as species observations or illegal wildlife detections) could be uploaded in real time to a cloud-based platform. In 2015, adult smartphone prevalence in the region varied from 14% in Burkina Faso to 19% in Senegal, 21% in Ghana, and 29% in Nigeria.[216] Among formally employed wildlife professionals, the share is likely higher today, and these networked tools can be used to send photographic and geolocated observation and incident data directly to monitoring platforms.

These regional plans and monitoring mechanisms should inform joint action between national agencies and can facilitate cooperation between the region and authorities in other parts of the world. Regular mechanisms for sharing information between source and destination countries should be developed for the purposes of joint operations and confirmation of legal trade. Some of this information sharing has already been initiated. For example, Nigeria and China have agreed to confirm the legitimacy of certified rosewood shipments. The EU also has in place mechanisms for tracing the origin of timber sourced from this region. These practices, which represent conscientious due diligence, beyond the letter of the law, should serve as an example for other importing countries.

No matter how advanced the strategy or competent the authority, all efforts to stem the illicit wildlife trade can be undone by corruption.[217] The inconsistencies in the trade data, the observable lack of security around CITES certificates, and the high levels of corruption found among law enforcement in the region generally all indicate that this is

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[216] *http://www.pewglobal.org/2016/02/22/smartphone-ownership-and-internet-usage-continues-to-climb-in-emerging-economies/*

[217] *See Resolution Conf. 17.6 on Prohibiting, preventing, detecting and countering corruption.*

https://cites.org/sites/default/files/document/E-Res-17-06.pdf

the lynchpin issue in the illegal wildlife trade. Countering this requires support to national anti-corruption authorities, some of which have proven very effective in the past. Ongoing activities and operations, making use of intelligence gathered by national and international partners, are required to counter this prevalent phenomenon.

In addition to these general measures, the following market-specific measures should be taken.

Ivory

As highlighted in the ivory chapter, the trafficking trend is declining, but ivory is still being extracted from the region at unsustainable levels, and region is a transit area for ivory poached in other parts of the African continent. Traffickers dislodged from East Africa have reportedly resettled in West Africa, and seven countries are part of the NIAP process, with mixed progress. Effective enforcement in this region is essential to the protection of elephants everywhere.

The MIKE data and the forensic data give a good idea where to start with enhanced anti-poaching efforts. Garamba National Park in the north-eastern DRC has recently shown the highest poaching levels among the MIKE sentinel sites in the region. Garamba is under assault by multiple armed groups, including national militaries, and so poses an extraordinary challenge to anti-poaching efforts. But ending poaching here would also provide knock-on effects, such as undermining military corruption and curtailing insurgent financing.

Both forensic and population survey data show in the importance of the broader TRIDOM (Tri-border Dja-Odzala-Minkébé) region, where Gabon, Cameroon, and Congo-Brazzaville meet. Aside from local poachers, this area reportedly shares a common threat with Garamba: a group of about 200 traditional elephant hunters from Sudan. Direct engagement with this group has never been attempted but would be worth considering. The research also implicates cattle herdsmen, including Fula groups, in poaching activities across a wide swath of savanna south of the Sahel. Coordinating support to animal husbandry and conservation efforts is important in this region.

In terms of anti-trafficking efforts, securing key national borders is crucial. As highlighted in several chapters in this report (ivory, pangolins, and rosewood), the border between Cameroon and Nigeria and the borders of the DRC with South Sudan and Uganda are particularly important. The Sudanese enclave of Kafia Kingi has long been implicated in local lawlessness. Nigeria is key as a point of export, and has recently been the source of two seizures, each of over three tons of ivory. Reinforced efforts in the locations could have high impact but are likely to result in displacement. Enforcement in Lagos ports can displace exports to Benin and Togo.

The cornerstone of ivory protection efforts, however, are the NIAPs, as they are a practical tool that is being used by affected countries to strengthen their controls of the trade in ivory and ivory markets and help combat the illegal trade in ivory. These states in many cases identify the need for technical expertise and financial support from the international community to achieve their self-identified objectives, and a number of countries in the regions need continued support.

Pangolins

As highlighted in the pangolin chapter, the illegal pangolin trade is more diffuse than ivory trafficking. The wild population is less understood and the number of poachers is much greater. More targeted research in the region is required to further understand this market, as well as a better understanding of demand outside the region. With regard to records of the seizures of pangolin scales, it is important to differentiate between those coming from the two arboreal species and the giant land pangolin. This study has shown that the latter attracts higher prices, and this distinction is necessary in order to understand how many specimens were killed to produce the seized contraband.

Given the potential range and the difficulties in spotting the species, a comprehensive assessment of pangolin populations is difficult to execute. Data emerging from law enforcement action, including seizures, can help identify populations under particular pressure, and rapid assessments could be done to track the rate of pangolin loss. This study identified 11 areas in south and eastern Cameroon where poaching has been severe, and these could serve as sentinel sites in tracking pangolin loss over time.[218]

Although all African pangolin species were recently transferred to CITES Appendix I, not all pangolin species are protected from harvesting under national law. Given the massive volumes of exports indicated by the size of recent seizures, countries may wish to put all pangolin species on the highest schedule of their protected species lists under their national legislation. Education of enforcement officers is necessary to ensure that pangolin scales are recognised as contraband. Even the poachers interviewed appeared to have little understanding of the nature of the creature they are harvesting. A public education campaign in all range states could increase awareness.

In terms of targeted enforcement, similarly to ivory, the borders between Cameroon and Nigeria and between the DRC and Uganda are key to the trafficking. Similar to rosewood, there may be yet unexploited populations in some states of the region that will become targeted as enforcement efforts displace traffickers, or as national pangolin stocks are depleted. Direct exports from Cameroon and Cote d'Ivoire should therefore also be monitored. As time passes and Parties have had a chance to absorb the Appendix I listing, a process similar to the NIAPs could be implemented for states consistently implicated in pangolin trafficking.

It is also important to keep track of pangolin breeding efforts and claims of stockpiles in order to clearly distinguish illegal trade. Pangolin breeding has been largely unsuccessful and no range country has claimed stocks that are in any way comparable to the volumes being seized. Better accounting of scale stocks, including large privately held stocks, is also important to prevent legal domestic markets from being contaminated by illegal supply.

If breeding continues to fail and pangolins remain on Appendix I, the markets that make use of pangolin scales will shortly need to find an alternative. These efforts should be encouraged, as they would ultimately result in positive conservation outcomes.

Rosewood

[218] *Campo, Djoum, Meyomessala, Sangmelima, Abong Mbang, Bertoua, Lomie, Mambele, Ngoyla, Yokadouma, and Buea.*

As an Appendix II species, *P.erinaceus* is a different category than the other species considered in this report. The focus of government efforts should be to ensure that trade is sustainable, and that will require sound non-detriment findings. Priority should be placed on assessing the commercial stands of the species in the primary exporting states, particularly Nigeria and Gambia, but also Cameroon, Ghana, Guinea-Bissau, Mali, and Senegal, as highlighted in the rosewood chapter. At the time of writing, Nigeria is subject to a recommendation to suspend trade in *P.erinaceus*, a recommendation that should stay in place until supplies of this timber can be scientifically assessed.

The recent large exports from Central and Southern Africa, including the DRC and Zambia, should also be assessed for the species exported. Vigilance among those certifying exports is required to prevent misdeclaration of species.

Most of the range states appear to have recognised the dangers of unregulated logging, and so have placed a wide range of national controls in place, including a number of log export bans. Defining worked timber seems to be an issue in all countries assessed in this report, and some means of quickly assessing whether a load is compliant is necessary for inspectors. If the intent of the law is to retain value added for local sawmills, then national authorities could consider excluding roughly squared timber, and definitions should favour products closer to sawn planks. [219]

An important characteristic of the rosewood market is the amount of money involved in this trade, which appears to be in the order of half a billion dollars per year in recent years, as highlighted in the rosewood chapter of this report. This is far more than most other illegal wildlife markets generate, and with the increase in revenues comes a greater propensity from illegal loggers and traders to use violence to protect them. Forestry officials interviewed were frank in their admission that field enforcement was simply too dangerous for them to undertake, and these officials are generally unarmed. The Casamance is just one area where logging could fuel conflict, justifying the use of the full range of stabilization tools to prevent a violent market from emerging.

Key border areas identified in section the rosewood chapter of this report as needing reinforcement are Cameroon/Nigeria, Senegal/Gambia, and Senegal/Mali. Nigerian ports, including Apapa, Tin Can Island, and Port Harcourt, as well as Banjul in Gambia and Tema in Ghana, also require enforcement assistance. The large timber markets in each of these countries need constant monitoring.

Parrots

Live parrots are currently being poached from some of the most remote areas of Central Africa, areas where law enforcement presence is limited. Intelligence is required to anticipate where in these vast areas the poaching is currently taking place. Even with this work, stopping poaching at source is an extremely difficult task. This work, as well as conservation efforts, could benefit substantially from scientific surveys to assess the range and population. Measures should be taken to ensure these populations can be monitored on a regular basis.

As suggested in the parrot chapter, the only means of exporting these animals live is by air cargo. Monitoring of air traffic between the region and the known destination markets

[219] *Rosewood sawnwood is defined under HS 44072940 as wood sawn to a lengthwise thickness of less than 6mm.*

is therefore an efficient way of combatting this illicit trade. In particular, there are a limited number of roads and a limited number of suitable airstrips in the eastern DRC. Use of dogs trained to detect this species at Kisangani and other key transport hubs in the region would provide a formidable deterrent to smugglers. Similar efforts could be deployed in the relevant areas of Cameroon and the Republic of Congo, the Central African Republic, Guinea, and Mali, as well as in the main destination airports, including Entebbe, those in the Arabian Peninsula, and South Africa.

In addition, those professional organizations involved in the international exotic bird trade should be encouraged to prevent the introduction of illegally caught birds into their legal industry.