GLOBAL TREND REPORT

MONITORING ONLINE ILLEGAL WILDLIFE TRADE

FEATURING MUSK DEER IN SOUTH ASIA AND OSTRICH TRADE IN CAMEROON

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ECO SOLVE

GI-TOC

GIFP
Global Illicit Flows Programme

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CONTENTS

ACRONYMS AND ABBREVIATIONS

B2B	Business to business
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
GMS	Global Monitoring System
INR	Indian rupee
IUCN Red List	International Union for Conservation of Nature Red List of Threatened Species
IWT	Illegal wildlife trade
MENA	Middle East and North Africa
MINFOF	Ministry of Forestry and Wildlife (Cameroon)

THE GLOBAL MONITORING SYSTEM FOR ONLINE MARKETING OF ILLEGAL WILDLIFE TRADE

The last decade and a half have seen a sharp expansion in the online illegal wildlife trade (IWT).[1] However, a dearth of data regarding the scale of the market, its dynamics, operations and ramifications, especially on a global scale, is a significant hindrance to combating this crime. To address this, ECO-SOLVE has developed a Global Monitoring System (GMS) to monitor global online IWT systematically and to gather data to feed into law enforcement activity and to inform policymaking. The GMS is a network of data hubs in countries whose domestic online markets are considered the largest or most consequential in their regions. National monitoring nodes are being set up in a staggered process and the size and scope of the network will grow with each edition of the Global Trend Report.

The GMS is a distributed monitoring network made up of country and regional data hubs. Each hub monitors a priority species basket and platform shortlist tailored to its own context, while contributing to a wider picture of how the online wildlife trade adapts across regions, languages and market types through a shared global basket. Hubs combine manual monitoring, local language knowledge and AI-enabled discovery tools to record advertisements involving protected live animals, parts, derivatives and related products.

DEFINING ONLINE ILLEGAL WILDLIFE TRADE

Online illegal wildlife trade refers to the trafficking of protected wildlife species and their derivatives facilitated through online platforms and other digital means. It encompasses a wide range of activities, including the sale of live animals, exotic pets, animal parts and products derived from endangered species.

This sixth Global Trend Report follows the logic of previous reports in the series: it begins with a structured trends section based on GMS monitoring data from April 2024 to April 2026, then develops thematic sections that explain emerging markets, legal ambiguities, deception patterns and enforcement risks.

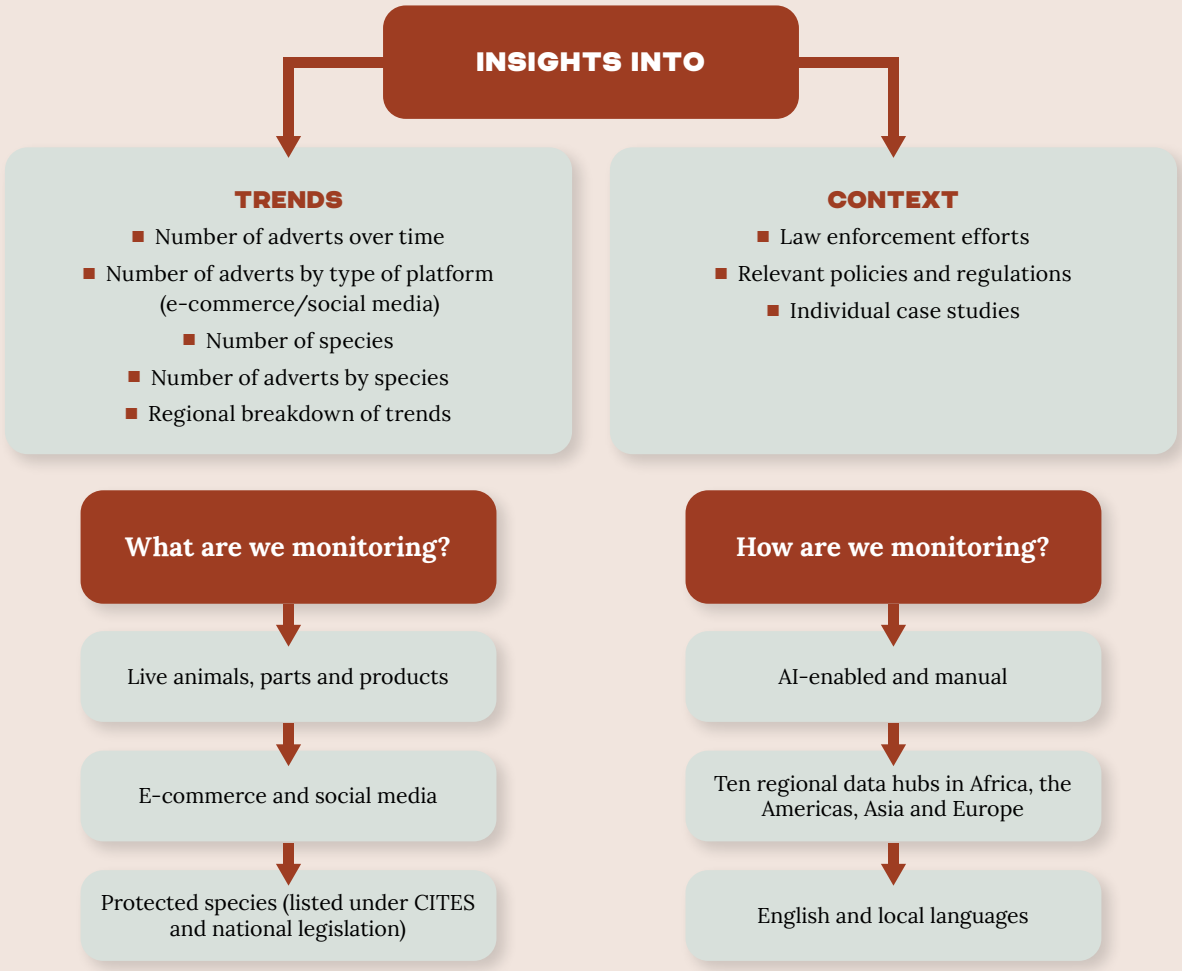


FIGURE 1 Global Trend Reports – insights and trends.

Methodology

The main analysis presented here draws on data collected by the GMS related to online advertisements for the illegal sale of wildlife. ECO-SOLVE gathered information such as the number of advertisements per data hub over time; the platforms where they appear; the protection status of the species under international and national regulations; and the extent to which online markets are concentrated. The programme also developed analyses of interactions between these variables to enhance understanding of the nature of the online trade. For the data to be comparable spatially and over time, data hubs follow a structured manual monitoring routine. Monitoring is done at standard temporal intervals for the same platform types in each hub.

In addition, data hubs monitor species that are included on established global and national lists of vulnerable and endangered species. Akin to methodologies that monitor market trends (e.g. inflation) by analyzing a 'basket' of goods that collectively represent the wider economy, the ECO-SOLVE GMS establishes national and global species baskets to represent the broader online IWT market. It considers the species' protection status under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), their conservation status under the International Union for Conservation of Nature Red List of Threatened Species (IUCN Red List), their protected status under national laws and regulations, and their relevance and priority to (local) law enforcement. Some by-catch species are flexibly recorded outside structured national baskets when advertisements have clear signals of illegality. In this context, a signal refers to any piece of information, pattern or indicator in the data that suggests IWT activity may be occurring. The purpose of capturing this information is to ensure that the GMS can remain adaptive to identify emerging markets when they appear.

TRENDS IN ONLINE IWT MARKETS: GMS DATA, APRIL 2024–APRIL 2026

The GMS recorded 25 350 illegal wildlife adverts online between 14 April 2024 and 30 April 2026. These detections span 11 data hubs, 66 online platforms and 23 languages, reflecting the continued expansion of the GMS and the growing visibility of the online wildlife trade across social media, e-commerce, messaging apps, classified advertising sites and business-to-business (B2B) platforms.

Across the full dataset, the GMS recorded 280 237 advertised items, products or specimens. Parts, extracts and derivatives accounted for 217 264 recorded items, or 77.5% of total recorded quantity, while live animals accounted for 62 973 items, or 22.5%. Online IWT is often publicly associated with live exotic pets, but the GMS data shows that processed products, bulk derivatives and wildlife parts are a major part of the detected market.

The overwhelming majority of records involved species listed under CITES Appendix I, Appendix II or mixed Appendix I/II categories (such as elephant ivory and products without provenance details). In total, 92.6% of detections involved CITES-listed species in these categories, highlighting an online market trade centred on highly regulated wildlife subject to international trade bans and controls.

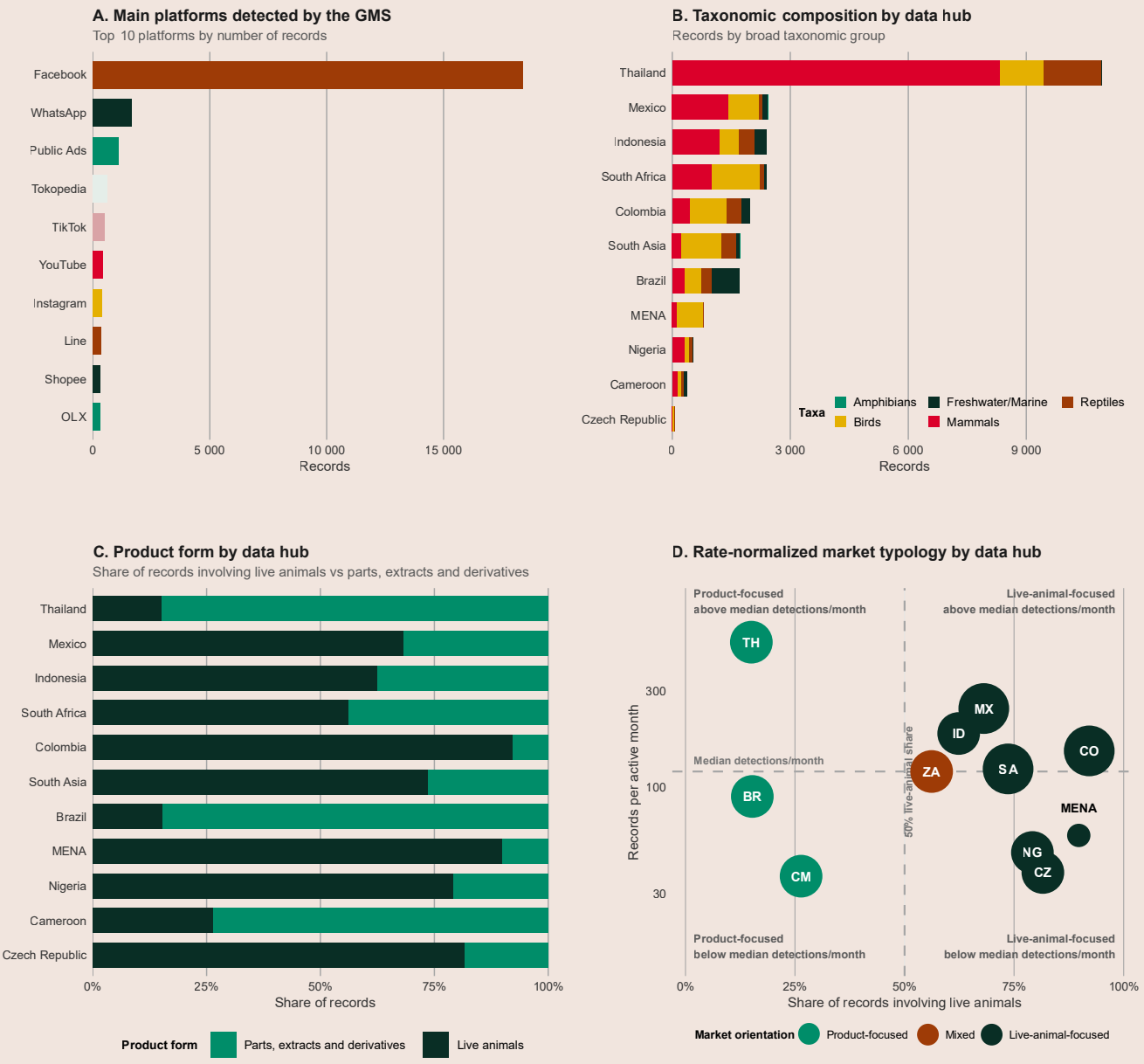


FIGURE 2 Online illegal wildlife trade market structure and monitoring signals across Global Monitoring System data hubs, April 2024 to April 2026.

NOTE: In D, ISO2 country codes are used to label the data hubs, with the exception of SA (South Asia) and MENA (MENA Regional). The size of the circles corresponds to the number of taxonomic groups detected in each hub.

The hub-level breakdown shows the geographic expansion of the GMS and the different platform ecosystems that analysts encounter. Thailand accounts for the largest share of records, but several newer hubs have already produced substantial datasets. Colombia and Mexico show the growing importance of WhatsApp groups as follow-up and sales channels, while the Cameroon hub more often detected IWT advertisements on B2B platforms than other hubs.

Data hub	No. of records	First record	Top platforms	Main languages
Thailand	10 932	15/08/2024	Facebook	Chinese, English, Lao, Thai, Vietnamese
Mexico	2 448	01/07/2025	Facebook, WhatsApp	English, Spanish
Indonesia	2 397	24/03/2025	Facebook, Tokopedia, Shopee	English, Indonesian
South Africa	2 394	14/04/2024	Facebook, Public Ads	Afrikaans, English, Zulu
Colombia	1 967	19/03/2025	Facebook, WhatsApp	English, Spanish
South Asia	1 726	06/03/2025	Facebook, YouTube, Instagram, TikTok	Bengali, English, Hindi, Malayalam, Nepali, Persian, Tamil, Telugu
Brazil	1 712	14/04/2024	Facebook, OLX	English, Portuguese
MENA	810	02/03/2025	Facebook, OpenSooq	Arabic, English
Nigeria	524	09/06/2025	Facebook, Jiji	English
Cameroon	364	10/07/2025	Facebook, 21Food, ExportersIndia, TradeFord	English, French
Czech Republic	76	12/11/2025	Bazos, FaunaPortal, iFauna, SBazar	Czech, English, German, Slovak

FIGURE 3 Monitoring statistics by data hub.

NOTE: Platforms listed are those accounting for at least 10% of detections, or the top platforms where this threshold is not informative.

The detected market is split between live animal trade and trade in parts, extracts and derivatives. Mammals accounted for the largest number of records, with 12 762 detections, followed by birds with 7 023, reptiles with 3 162 and freshwater/marine taxa with 1 648. Mammals were especially dominant in parts and derivatives, while birds were the dominant group in the live animal trade.

The parts, extracts and derivatives category was led by elephants, tigers, bears, pangolins, Bengal monitors, unspecified ivory, pirarucu, sharks, leopard products, seahorses and jaguar products. Live animal records were dominated by African grey parrots, tortoises, macaws, spider monkeys, tigers, otters, parakeets and cockatoos.

African grey parrots are still the clearest live animal priority, appearing across all 11 hubs. Elephant and tiger products are central to the parts and derivatives trade, while pangolin, seahorse, pirarucu, shark and jaguar records point to a wider market in processed or semi-processed wildlife products that can move through commercial, medicinal, fashion and ornamental supply chains.

The online IWT is highly concentrated on a small number of platforms. Facebook accounted for 18 115 records, or 71.5% of all detections, making it by far the most important platform for monitoring and enforcement attention. WhatsApp followed with 1 636 records, while Public Ads, Tokopedia, TikTok, YouTube, Instagram, Shopee, Line and OLX also appeared among the most frequently detected platforms.

Hub	Priority species/products from export	Primary market driver	Key monitoring priorities
Thailand	Elephant, tiger, bear, African grey parrot, Bengal monitor, pangolin	Spiritual, religious and medicinal markets; live pet trade	Facebook and Line dominate; adverts are mostly for parts and derivatives, especially ivory and big cat or bear products; parrots, reptiles, primates and other exotic pets from around the world are commonly detected.
Mexico	Geoffroy's spider monkey, tiger, lion, ivory, jaguar, military macaw	Exotic pets, taxidermy, worked wildlife products and status goods	Facebook and WhatsApp dominate. Data points to private follow-up channels, big cat and primate pet offers, ivory and exotic leather products.
Indonesia	Elephant, seahorse (*Hippocampus spp.*), otter, yellow-crested cockatoo, tiger, African grey parrot	Exotic pet trade and large-scale ivory smoking pipe sales	Facebook, Tokopedia, Shopee and TikTok dominate. Seahorses, otters, cockatoos and monitor lizards show the mix of e-commerce product listings and live pet marketing. A large commercial market of ivory smoking pipes is increasingly visible.
South Africa	African grey parrot, ivory, elephant, leopard, hyacinth macaw, shark	Live parrots and exotic pets; ivory and leopard parts	Public Ads is almost as important as Facebook. Mostly pet parrots, ivory and leopard skins visible.
Colombia	Red-footed tortoise, yellow-crowned amazon, blue-and-yellow macaw, white-faced capuchin, cotton-headed tamarin, scarlet macaw	Live pet trade and medicinal products	Facebook and WhatsApp dominate. The hub is heavily live-animal focused, led by tortoises, parrots, primates and shark-derived extracts lacking species or provenance labels.
South Asia	African grey parrot, Alexandrine parakeet, Bengal monitor, rose-ringed parakeet, Himalayan musk deer, common hill myna	Pet trade, wildlife meat or skins and traditional medicine	Activity is spread across Facebook, YouTube, Instagram and TikTok. Parrots, Bengal monitor lizards and musk deer products are high-priority.
Brazil	Pirarucu, shark, ivory, hyacinth macaw, caiman, African grey parrot	Ritual use, fish and leather products, pet trade and worked products	Facebook dominates but OLX is also important. Pirarucu, sharks, caimans, macaws, ivory and jaguar products are useful indicators of substitution and worked-product risks.
MENA	African grey parrot, peregrine falcon, blue-and-yellow macaw, golden eagle, ivory, scarlet macaw	Exotic pet and status symbol markets, including falconry and ivory jewellery	Facebook and OpenSooq are the main venues. Parrots, falcons, eagles and ivory appear in listings with cross-border relevance.
Nigeria	Pangolin, African grey parrot, ostrich, ivory, primates	Bushmeat, traditional use, live pet trade and export-oriented offers	Facebook and Jiji dominate, with some TikTok, Instagram and B2B presence. Pangolin products, parrots, crocodilians and elephant products are high-priority issues.
Cameroon	Ostrich, sea cucumber, pangolin, African grey parrot, primates	Bulk B2B trade, bushmeat, traditional use and export-oriented wildlife products	This hub shows a strong B2B signal. Ostrich, sea cucumber, pangolins, parrots and ivory or rhino references include large quantity claims that should be handled separately from ordinary advert counts.
Czech Republic	African grey parrot, stony corals, yellow-headed amazon, Hermann's tortoise, blue-throated macaw, Cuban amazon	Specialist exotic pet and hobbyist markets	Small but useful baseline. Classified ad and fauna portals dominate, with African grey parrots, corals, tortoises, macaws and wolves appearing in regulated species contexts.

FIGURE 4 Main online wildlife trade dynamics across GMS data hubs.

By platform type, social media accounted for 77.3% of records, e-commerce for 13% and messaging apps for 7.7%. B2B platforms represented only 1% of records but accounted for 114 746 recorded items, more than any other platform type. This is important, because advertisements on B2B websites are typically for bulk quantity international exports, and the visibility of clearly illicit items (such as pangolin scales, rhino horn and elephant ivory) is high across all monitored B2B platforms. Sellers on these platforms rarely use coded language and the products are easily searchable. This points to a crucial enforcement issue: social media produces the greatest volume and diversity of adverts, but B2B and e-commerce sites may carry fewer advertisements with much higher recorded quantities.

The case studies that follow are therefore not isolated examples but evidence of a broader online pattern. They show why B2B and e-commerce monitoring is needed even when social media accounts for the greatest diversity and volume of advertisements. Social media platforms are often used for marketing, visibility and user engagement, making detections on these platforms a strong indicator of the scale and diversity of the online IWT. B2B platforms, by contrast, may generate fewer listings but can reveal much larger quantities per advertisement, including bulk stock, export-ready products, business entities, international shipping and supply chains. These indicators are particularly relevant for enforcement because they point beyond individual retail sales towards larger-scale commercial supply.

RECOMMENDATIONS

- **Governments and platform regulators:** Require high-risk platforms to introduce mandatory wildlife sale controls for CITES-listed species, including blocked keywords, repeat seller detection, evidence preservation and vetted researcher access.
- **Civil society organizations and NGOs working with online IWT:** Focus on large social media platforms such as Facebook, where IWT is concentrated; consider working with B2B platforms such as TradeFord, TradeKey, EC21, ExportersIndia and IndiaMART to improve platform governance and content removal.
- **Law enforcement agencies:** Treat bulk online listings of parts, extracts and derivatives as potential organized crime leads, and prioritize sellers offering repeated or large-volume quantities for investigation.
- **Customs, financial intelligence units and logistics regulators:** Consider using online wildlife advertisement activity to generate shipment risk profiles for wildlife derivatives, linking seller accounts to phone numbers, payment channels, courier services and export routes.
- **Platforms, payment providers and courier companies:** Create joint disruption protocols so that confirmed wildlife sellers are removed across accounts, groups, payment rails and delivery services, rather than only having single posts deleted; this could be facilitated by tracing email addresses and phone numbers used for service registration or sign-up.

DEER MUSK: DECEPTION, SCENT MIMICRY AND HIGH-RISK LISTINGS IN SOUTH ASIA

The online musk market challenges the assumption that musk deer exploitation is mainly visible through traditional medicine products or clearly illegal wildlife advertisements. In practice, musk-related products are often marketed through more ordinary consumer categories, including perfume, attar (a naturally derived perfume oil), incense, 'spiritual oils', 'vintage fragrances', synthetic scents and fake musk pod listings. Some sellers also openly advertise products as wild Himalayan deer musk. This combination of terms creates conservation and enforcement risks. Genuine musk claims may indicate supply linked to poaching, while synthetic and fake products may sustain demand, normalize musk consumption or amount to consumer fraud. As a result, the online market is difficult to interpret; it can contain illegal products, misleading substitutes, and legal or semi-legal products side by side.

Musk deer (*Moschus spp.*) are among the most evolutionarily distinctive ruminants in the alpine and subalpine ecosystems of South Asia.[2] The males are known for their elongated canine teeth and for the preputial scent gland, or 'musk pod', that has made the genus a persistent target for poaching.[3] Natural musk has historically been valued as a fixative in luxury perfumery and as an ingredient in traditional medicine,[4] creating pressure on species that already face habitat fragmentation, local hunting and climate-linked range shifts, and driving them to the brink of extinction.[5]

In partnership with ECO-SOLVE, online monitoring by the Wildlife Trust of India between March 2025 and March 2026 identified 85 posts for products marketed as alleged deer musk derivatives. None of the listings in this monitoring cycle were categorized as traditional medicine, although the previous Global Trend Report discussed Angong Niuhuang Wan as an example of medicine-linked musk derivative product marketing.[6] The monitored posts were instead concentrated on perfumes, attars, oils and incense-like products. The core finding is therefore that risk to musk deer is not limited to traditional medicine demand. Ordinary e-commerce and fragrance marketing also help keep musk-related products visible, searchable and commercially desirable online.

Major e-commerce platforms such as Etsy and Amazon dominated the monitored trade, accounting for 78.8% of activity. B2B platforms accounted for 11.8%, while social media accounted for 9.4%. This shows the musk trade is not hidden in closed groups or encrypted channels but is mainstream and internationally commercialized. It is easily searchable, indexed and presented in ordinary retail spaces where buyers may not understand the legal or conservation risk.

Platform	Percentage of musk records
Etsy	35.3%
Amazon	22.4%
IndiaMART	17.6%
Flipkart	12.9%
Facebook	3.5%
Instagram	3.5%
ExportersIndia	2.4%
YouTube	2.4%

FIGURE 5 Distribution of alleged musk pod derivatives by platform.

Four musk deer species are classified under CITES: alpine musk deer (*Moschus chrysogaster*), Kashmir musk deer (*Moschus cupreus*), black musk deer (*Moschus fuscus*) and Himalayan musk deer (*Moschus leucogaster*). Populations of these species in Afghanistan, Bhutan, India, Myanmar, Nepal and Pakistan are listed in Appendix I, which prohibits international commercial trade in wild-sourced specimens and products derived from them. Alpine and black musk deer are listed in Appendix II for populations outside those countries, meaning that international commercial trade is not automatically prohibited but must be controlled through CITES permits and should be authorized only where specimens have been legally acquired and the trade is not detrimental to the survival of the species.[7]

Domestically, India's Wild Life (Protection) Act of 1972 grants all four species Schedule I status, the highest tier of legal safety. This status implies an absolute ban on hunting, possession, sale and transport. Musk or *kasturi* (a Sanskrit word meaning 'musk' or 'smelling of musk') obtained from the male deer is used in traditional medicine or for spiritual purposes in India. Many Hindu and Jain temples reportedly use musk illegally.[8] Despite these stringent laws, GMS data indicates that 97.6% of online listings for musk products originated in India, with hubs in Madhya Pradesh (26 listings) and Delhi (21 listings).

A fundamental challenge in monitoring this trade is the inability to verify the authenticity of online claims. Almost all advertisements involving musk pods, particularly those found on Etsy (35.3%), Amazon (22.4%) and IndiaMART (17.6%), explicitly claimed that the contents were extracted from the Himalayan musk deer. To indicate authenticity, sellers use high-value luxury cues such as 'real & pure', 'natural wild' and 'vintage batch'.

However, forest officials in Kerala have identified a pervasive wildlife fraud epidemic. Fraudsters from Karnataka and Tamil Nadu are reported to craft fake pods using the subcutaneous skin of cattle and foxes, meticulously fixing hair to the exterior to mimic the genuine gland.[9] These imitations are often bundled with other 'magical' items such as jackal horns and monitor lizard hemipenes to lure speculative investors and practitioners of so-called 'black magic'. This fraud, while sparing the lives of deer, underscores the extreme pressure on the species; demand for the product is so high that it has spawned a sophisticated counterfeit industry.[10]

A guide to fake and genuine musk pods on a UK website selling Siberian musk products. *SOURCE: Sibermusk, https://sibermusk.com/signs-of-originality*

THE TRUE COST OF DEER MUSK

How authentic musk is obtained, why the biological cost is so high, and what online prices can indicate

1 HOW AUTHENTIC MUSK IS OBTAINED

- Authentic musk usually comes from killing the animal to remove the musk pod.
- Only adult males carry a musk gland large enough to be commercially valuable.
- Poaching pressure often intensifies in winter, when deer move lower and become easier to track.

2 INDISCRIMINATE HUNTING METHODS

- Common methods: wire snares, leg and neck traps, habitat fire-setting and ambushing latrines.
- These methods are indiscriminate: they kill not only adult males, but also females, juveniles and other wildlife.
- In some areas, snaring may kill three to five musk deer for every adult male with a commercially valuable musk gland.

3 THE DEATH TOLL BEHIND ONE KILOGRAM OF GENUINE MUSK

- The average musk gland yields about 23–25 grams per pod.
- Producing 1 kilogram of genuine musk requires the pods of about 40 adult males.
- If three to five deer are killed for every usable pod, the total number of deer killed for each kilogram of musk could be more than 200.

4 POPULATION AND HABITAT IMPACTS

- Indiscriminate harvesting has contributed to local extinctions and severe population declines.
- Climate change is likely to push musk deer towards higher elevations and latitudes.
- Fragmented mountain forest and shrubland leave populations more isolated, more exposed to hunters and less able to recover.
- In Kedarnath Wildlife Sanctuary, musk deer numbers declined from about 1 000 in the 1980s to fewer than 100 in recent years.

5 A DECEPTIVE ONLINE MARKET

- Some online sellers advertise bulk volumes of up to 180 kilograms.
- Listings can be as low as about INR1 500 (US$16) per kilogram – far below the true value of authentic musk.
- This huge price gap suggests a deceptive industrial model: synthetic 'scent mimicry' marketed with endangered-species imagery.
- Instead of clearly labelling the product as a synthetic alternative, sellers may use deer imagery and wild-origin language to mislead buyers.

6 PRICE AS A PRACTICAL RISK INDICATOR

Low-end products (probably synthetic/fragrance)

- As low as INR75 (less than US$1) per item.
- Often sold as 'musk fragrance' or 'black musk'.
- Wildlife risk is mainly deceptive marketing using deer imagery, the term '*kasturi*' or '*kastoori*', and other language suggesting that the product is wild-origin.

Mid-range listings (higher concern)

- Around INR10 000–INR16 500 (US$107–US$177) per item.
- When paired with pod imagery, gram-based quantities, or 'real'/'wild' claims, risk of genuine animal-derived musk increases.

High-end listings (highest concern)

- Around INR33 186 (US$356) per item.
- A single pod yields only about 25 grams.
- Average online retail can reach about INR2 800 per gram (US$30 per gram).
- Listings that mention Himalayan or Siberian origin should be treated as especially concerning when combined with high price and wild-origin claims.

KEY TAKEAWAY Cheap bulk musk listings may indicate deceptive synthetic products, while higher-priced listings with wild-origin signals may indicate genuine musk and severe risk to musk deer populations.

FIGURE 6 Issues related to the online trade in musk deer products.

The authentic musk market usually relies on killing the animal to extract the pod, and only adult males carry a musk gland large enough to be commercially valuable. Common hunting methods such as wire snares, leg and neck traps, habitat fire-setting and ambushing latrines are indiscriminate; in addition to targeting adult males with musk pods, they kill females, juveniles and other animals. TRAFFIC reporting on the musk trade in the Russian Federation and Mongolia found that snaring may kill three to five musk deer for every male with a sufficiently large musk gland.[11] Field studies from Pakistan, China, Bhutan and Nepal show the same pattern: musk pod extraction is the main economic motive, but females and juveniles are also killed, snares are widely used, and poaching pressure can be concentrated in winter when animals move lower and become easier to track.[12] This indiscriminate harvesting has led to local near-extinctions; for example, the musk deer population in Kedarnath Wildlife Sanctuary in India decreased from 1 000 in the 1980s to fewer than 100 in recent years.[13]

The potential biological cost is stark. An average musk gland weighs 23–25 grams per pod,[14] so a kilogram of genuine musk could represent 40 adult males. With three to five musk deer killed for every male with a sufficiently large musk gland,[15] a kilogram of genuine musk could plausibly be associated with up to 200 musk deer deaths in total.[16]

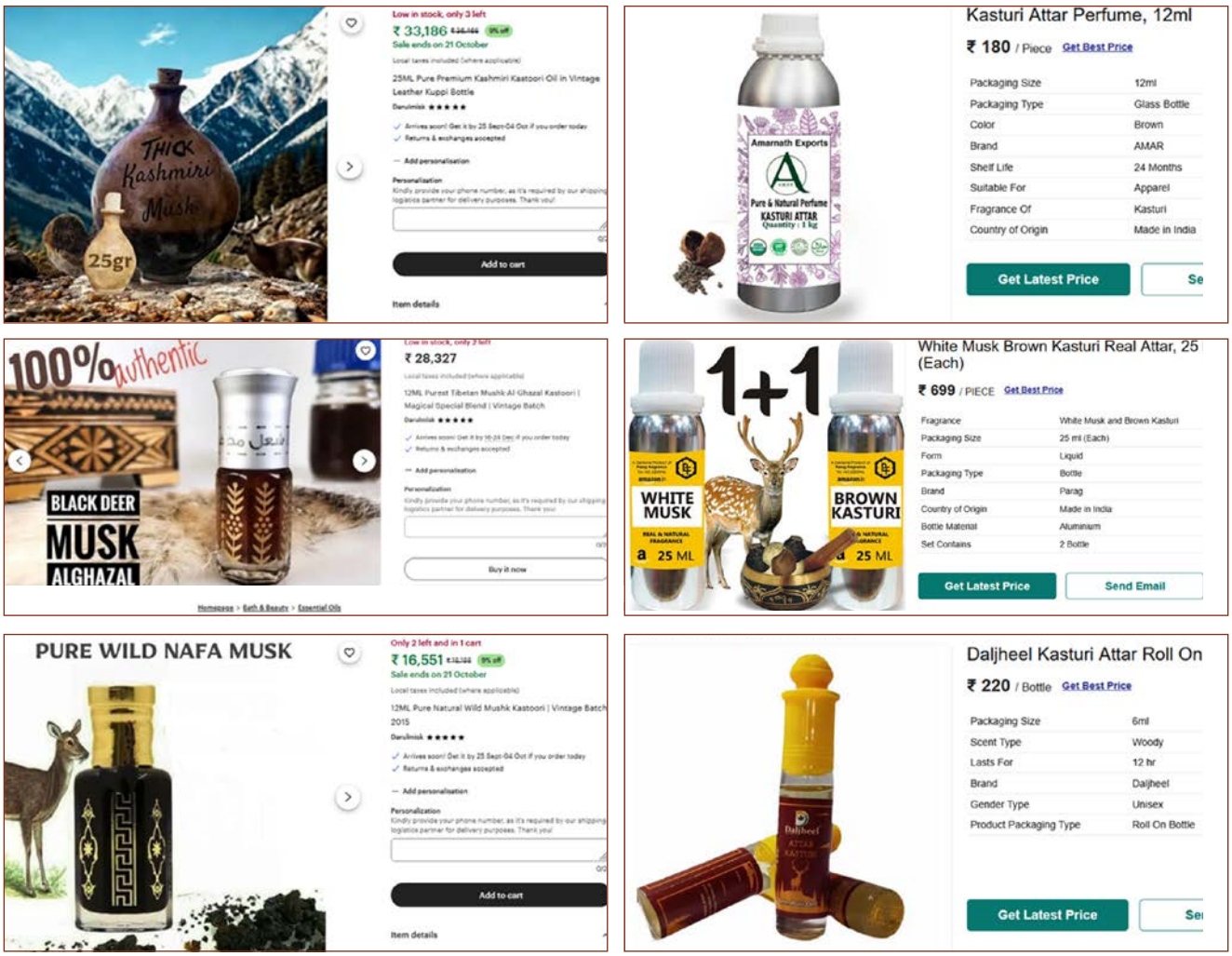
Musk deer also face a climate and habitat squeeze. Climate modelling suggests that musk deer distributions are likely to shift under warming, including movement towards higher elevations and latitudes in China, while the suitability of Himalayan musk deer habitat is strongly shaped by climate variables that influence vegetation type and structure.[17] These animals depend on mountain forest and shrubland habitats that may be fragmented, slow to regenerate or poorly covered by existing protected area networks. As suitable conditions shift, populations may become more isolated, more exposed to hunters, and less able to recover from the selective loss of adult males through poaching.[18]

Despite this severe biological cost to musk deer, online sellers on B2B platforms such as IndiaMART offer bulk volumes of up to 180 kilograms at a fraction of the true market price: often as low as 1 500 Indian rupees (INR) (about US$16) per kilogram. This massive discrepancy suggests a transition from opportunistic poaching to a deceptive industrial model that uses scent mimicry and imagery of an endangered species to intentionally mislead buyers instead of simply stating that the product is a sustainable synthetic alternative to authentic musk.

Price is not proof of genuine musk but it is one of the clearest risk signals. Authentic deer musk is extraordinarily expensive: top-grade 'grains' (dried granular material from inside a musk pod) can fetch up to US$50 000 per kilogram in international hubs such as Hong Kong.[19]

For low-end products (synthetic or fragrance), our monitoring data shows listings as low as INR75 per item (less than US$1). These items, often marketed as 'musk fragrance' or 'black musk', are almost certainly synthetic aroma chemicals or botanical blends using ingredients such as ambrette seed oil.[20] The wildlife risk lies mainly in misleading marketing tactics used by online sellers, which typically use deer imagery, the terms *kasturi* or *kastoori*, and other language suggesting wild origin to keep the idea of real musk visible to consumers.

Listings in the middle range (INR10 000–INR16 500/US$107–US$177) and upper end (INR33 000/ about US$350) per item are significantly more likely to involve genuine extraction from musk deer pods, and they align with the black market economics of poached musk.[21] Expensive listings are not automatically genuine, but when price is combined with pod imagery, 'real' or 'wild' claims, gram-based quantities and language about Himalayan or Siberian origin, they should be treated as such.



Screenshots of online advertisements for potentially authentic musk products (left) and synthetic products (right), with considerable price differences.

Testing should match the evidence type. When investigators have oils, powders or finished fragrance products, chemical analysis such as gas chromatography–mass spectrometry can screen for muscone and synthetic musk compounds. Published forensic work has used chemical analysis to identify muscone in musk-related samples, while other studies of musk composition show why chemical profiling is essential for distinguishing genuine musk from substitutes.[22] Where pods, skin, hair or tissue are available, microscopy and DNA analysis can support species identification. For online-only cases, the immediate priority is evidence preservation, seller history, repeat-contact mapping and targeted test purchases where legally authorized.

RECOMMENDATIONS

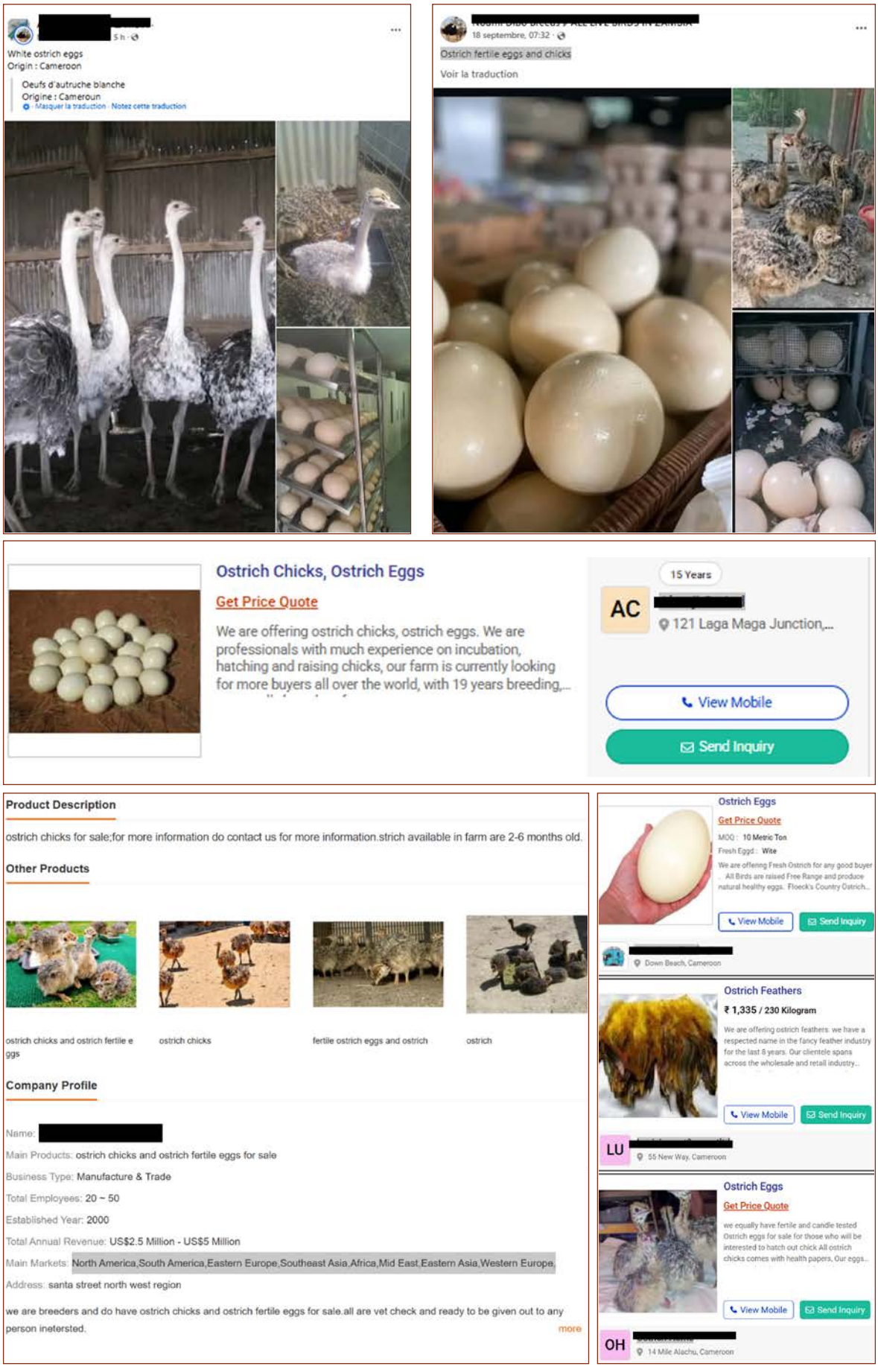
- Consumer protection authorities should require substantiation for claims such as ‘real’, ‘pure’, ‘wild’, ‘Himalayan’, ‘natural’ or ‘musk deer’ on e-commerce and B2B platforms, and penalize misleading advertisements where proof that the product is a legal alternative is absent.
- Wildlife enforcement agencies should prioritize mid- to high-price listings, explicit pod claims, wild-origin language and small-volume premium products for evidence preservation, controlled inquiry and forensic testing.
- Platforms should remove all advertisements for potentially illicit musk products using indicators highlighted in this report, and prohibit the use of endangered-species imagery and wild-origin claims on synthetic musk products unless the seller clearly states that the product is synthetic and contains no wildlife derivative.
- India’s Wildlife Crime Control Bureau, state enforcement bodies and consumer protection authorities should distinguish consumer fraud from Schedule I wildlife trafficking through coordinated testing, seller-network mapping and inter-state information sharing.

COMMERCE OR CONTRABAND? ONLINE OSTRICH TRADE IN CAMEROON

Online evidence from Cameroon points to a visible, international B2B market in live ostriches (*Struthio camelus*), chicks and fertile eggs in a country where ostriches are under Class A national protection. Cameroon populations receive the strictest international trade controls under CITES Appendix I, yet visible Cameroonian trade records in the CITES database are limited, presenting only a narrow history of exports of eggs, leather and feathers from 1986 to 2003, potentially underrepresenting trade. This creates a basic provenance challenge: the online market appears active but the legitimate domestic supply base behind it is difficult to confirm.

Open-source information on ostrich farming in Cameroon is difficult to verify, including the 60 advertisements of ostrich eggs, products and live birds recorded in the GMS. For example, the only two ostrich farms present on Google Maps in Cameroon appear to be fraudulent; one has numerous reviews with complaints about being scammed,[23] and the other links to an ostrich farm in Kenya.[24] If the Cameroon farms are real, they may represent a substantial unregistered or poorly documented industry. If they are not real, listings are still advertising an export-ready fraudulent wildlife supply chain that platforms are not moderating and authorities should closely monitor.

Ostrich farming can be a legitimate livelihood and conservation tool when founder stock, facility registration, animal welfare, veterinary controls and trade documentation are clear.[25] The problem in Cameroon is that while there is discourse in agricultural universities and online marketing that suggests the trade exists,[26] the legal and permitting framework appears not to have caught up. Social media and B2B platforms present Cameroon-linked sellers as international exporters of fertile eggs and live birds (see the images below), while the public legal trade record on CITES does not show any corresponding export industry.



Online advertisements for Cameroonian ostriches and ostrich products on social media platforms and B2B sites.

PHOTOS: Screengrabs from Facebook, Tradeford, EC21 and ExportersIndia

The common ostrich is the world's largest living bird and is native to parts of sub-Saharan Africa. The species is globally assessed as Least Concern on the IUCN Red List, but this hides important population and regulatory differences across its native range. CITES treats the species as split-listed: the populations of Algeria, Burkina Faso, Cameroon, the Central African Republic, Chad, Mali, Mauritania, Morocco, Niger, Nigeria, Senegal and Sudan are listed in Appendix I, while other populations are not included in the CITES appendices. Cameroon's domestic law is stricter still. The Ministry of Forestry and Wildlife (MINFOF) Order No. 0648 lists the ostrich as a Class A species, meaning that it is totally protected. The same order gives the young of Class A animals and the eggs of class A and B birds total protection as well.[27] This means that eggs, chicks and live birds advertised from Cameroon are legally sensitive wildlife specimens unless there is clear commercial authorization for their sale.

Additionally, Cameroonian ostrich populations are placed in Annex A under EU wildlife trade rules,[28] but the conditional status under CITES creates a laundering risk. Appendix I birds, eggs or products from protected Cameroonian founder populations could be relabelled as generic 'ostrich' stock and falsely declared as a non-listed population (e.g. from South Africa) to subvert international regulations.

Since the most recent population assessment in 2000 recorded only 50 birds,[29] it seems unlikely that native populations could supply the production volumes claimed in online advertisements. There is emerging evidence that some Cameroonian stock may come from neighbouring countries such as Nigeria, where the species is also listed under CITES Appendix I. In 2012, MINFOF arrested an international wildlife trafficker for transporting eight ostriches from Nigeria to Cameroon without required documentation.[30] Additional qualitative evidence indicates that a Cameroonian poultry breeder has been investigating ostrich breeding licences in Cameroon for stock reportedly of Nigerian origin.[31] GMS data from Nigeria contains 30 ostrich advertisements detected on social media (Facebook) and an e-commerce site (Jiji.ng), many of which include videos of farms with eggs, juveniles and adult ostriches.

This creates a provenance problem. Legality depends on founder stock, facility authorization, breeding records, veterinary documentation and export permits. None of these can be verified from most online advertisements. In practice, the market sits in a grey zone created by the gap between a plausible livelihood model and a scarcely visible regulatory pathway.

The strongest argument for taking this seriously is that the ostrich trade could be made more sustainable. A 2004 study said that while ostriches had been protected in Cameroon since 1994, only about 50 birds in the Waza National Park were thought to remain in 2000.[32] The study identified the drivers of population decline as local poaching for eggshells, meat and bone marrow, and commercial hunting for skins. It proposed controlled game ranching or farming to support reintroduction, visual tourism and sustainable national meat or craft markets.[33]

That argument remains relevant. In theory, a regulated ostrich sector could provide income, reduce pressure on wild birds, create incentives for husbandry skills and support conservation messaging. But this would work only if wild-origin stock was excluded or transparently managed, if farms were registered and regulated, and if export claims were matched by permits and CITES reporting. Unregistered or undocumented breeding does the opposite. It creates a laundering risk, undermines credible producers and makes it impossible to distinguish conservation-linked enterprise from wildlife contraband.

The public CITES trade record does not show a modern Cameroon ostrich export industry. CITES trade statistics, which reflect official trade records reported by parties, should be interpreted cautiously because reporting can contain gaps and importer–exporter discrepancies.[34] Even so, the pattern is important. Cameroon-linked legal trade in ostriches appears small and old. Between 1986 and 2003, there were 14 export records involving 111 commodities, primarily wild-caught eggs sent to the US or France for personal or commercial purposes. The last legal export record was a single egg exported from Cameroon to the US in 2003.

No legal ostrich breeding operation in Cameroon is identified on the CITES register of operations breeding Appendix I animal species for commercial purposes. This absence does not prove that no domestic farms exist, because not every facility would necessarily appear in that register. But it does mean that bulk international trade claims should be treated as unverified until the facility, founder stock and permit basis are checked.[35]

From August 2025 to April 2026, the GMS recorded 60 distinct ostrich listings across three B2B platforms: 21Food (52%), ExportersIndia (30%) and TradeFord (18%). These wholesale marketplaces are designed to connect suppliers to international buyers and can make even small, inactive or unverified companies appear export ready.

Most listings offered ostrich eggs (52%) or live animals (29%). Feathers (10%) and meat (9%) were less common. Eggs were often marketed as fertilized for buyers interested in breeding and hand-rearing birds, with some listings claiming permits, approvals, export licences, DNA testing or health documentation. The language on bulk export quantities in B2B posts points to a large commercial market with established captive ostrich populations.

Further open-source checks support this. Public B2B pages connect Cameroonian sellers to ostrich eggs, fertile eggs, chicks and live ostrich supply claims across ExportersIndia, 21Food and TradeFord. ExportersIndia pages list Cameroon-linked sellers in Limbe, Tiko, Douala, Edea, Yaoundé and elsewhere, with claims including worldwide supply, experienced breeders, candle-tested fertile eggs (meaning that they have been checked with a bright light to confirm that they contain a developing embryo), delivery to farmers for breeding and hand-rearing, and licensing to deliver to many countries.[36] The presence of Cameroonian ostrich sellers on India-facing B2B platforms is particularly concerning since there are no CITES records indicating legal ostrich movements between the two countries.

Some listings are explicit about export logistics. One ExportersIndia page for ostrich chicks and fertile eggs lists a minimum order quantity of 100, preferred buyers all over the world, payment by letter of credit, telegraphic transfer and Western Union, a port of dispatch in Douala and delivery within 15 days.[37] A 21Food listing describes fertilized ostrich eggs from Cameroon with claims of DNA testing and export licensing.[38] TradeFord listings advertise ostrich eggs, emu eggs, rhea eggs and chicks from Cameroon, including chicks from one day to one year old.[39]

Signal type	Examples observed	Importance
Spatial concentrations	Limbe, Tiko, Douala, Edea, Yaoundé and the South-West region recur in public seller claims.	Locations may be farm sites, offices, brokers or copied company profiles.
Export readiness	Worldwide market offers, Douala dispatch, delivery timelines and international payment methods.	Suggests a trade model aimed beyond local consumption, even where legal exports are not visible in CITES data.
Breeding legitimacy cues	Fertile eggs, chicks, experienced breeders, candle-tested eggs, DNA-tested stock, health papers and export licence language.	These claims are designed to reassure buyers but they are not proof of lawful founder stock or permits.
Scale claims	Some GMS listings claim hundreds to thousands of eggs per week.	If true, this implies large flocks. If false, it signals inflated and unmoderated B2B marketing. Either way, it is a compliance trigger.

FIGURE 7 Signals of ostrich trade listings in Cameroon.

Several listings discovered by the GMS reported production capacities of between 300 and 12 500 eggs per week. Mature ostriches do not lay at industrial poultry rates, so such claims would imply herd sizes ranging from several hundred to many thousands of birds, depending on assumptions about sex ratio, laying season and productivity. These figures could indicate substantial commercial operations, but they could also reflect inflated B2B marketing. These bulk listings should be emphasized because they are making claims large enough to demand regulatory verification.

The emphasis on fertilized eggs is important. It suggests a supply chain focused less on immediate consumption and more on breeding stock, future production and the creation of new captive populations. That can be legitimate when documentation is clear. It can also replicate the pattern seen in past ostrich-ranching booms, where speculative expectations of future demand outpace processing capacity and market uptake, resulting in the collapse of the trade and major financial losses.[40]

Companies listed across the three monitored platforms were concentrated in the Littoral (52%), South-West (38%) and the Far North (10%) regions. The Littoral region contains the port city of Douala, a key maritime trade node. South-West listings around Limbe and Tiko align with several supplier pages. The Far North of Cameroon includes more open savannah habitat and the natural range of ostriches in the country, which makes it relevant for farming potential but also risky for potentially wild-caught stock. However, listed locations in online ads may reflect offices, intermediaries, internet access points or trading companies rather than farm sites.

FIGURE 8 Issues surrounding the presence of an international online market for ostriches in Cameroon.

TRAFFIC's Wildlife Trade Portal lists 34 ostrich-related seizure incidents between 1999 and 2023, mainly involving eggs, live birds and leather products. However, none of these incidents were associated with Cameroon.[41] This should not be interpreted as proof that illegal trade is absent. Seizure data reflects enforcement priorities, detection capacity, media reporting and reporting bias. It should be treated as a proxy signal, not a complete record of activity.

This gap in enforcement and regulation surrounding potential international trade in a CITES Appendix I species is important because online evidence presents Cameroon as an international supplier of ostriches and ostrich products. A better-regulated ostrich trade could be sustainable but only under strict conditions. The minimum regulatory actions should include registration of all facilities, documentation of founder stock, hatchery logs, individual identification of breeding birds, veterinary inspections, welfare standards, clear rules for eggs and chicks (every fertile egg or chick must be linked to documented parent birds and lawful founder stock), permit checks before online advertising, and reconciliation between customs records and CITES reporting. Without these controls, ostrich farming presents a laundering risk and a potential risk of national extirpation, which may lead to exploitation from adjacent countries to fill demand. With them, it could potentially become a legitimate rural enterprise and a conservation-compatible alternative to wild extraction.

The policy choice is therefore not farming versus conservation. It is regulated, traceable farming versus a visible and unregulated online market. Evidence suggests that Cameroon is already being presented online as a supplier. Authorities need to decide whether that supply is lawful, traceable and worth formalizing, or whether it is an unreported market growing faster than the rules designed to manage it.

RECOMMENDATIONS

- MINFOF and Cameroon's CITES management authority should verify B2B companies advertising ostrich eggs, chicks, live birds, feathers or meat, including farm location, founder stock, hatchery records and authorization status.
- Cameroon should consider a clear legal pathway for registered ostrich farming, but only with strict exclusion of undocumented wild stock, facility inspections, animal welfare requirements and transparent trade reporting.
- Customs and port authorities should profile ostrich eggs, live birds and related products moving through Douala and major border corridors, especially where documentation does not match claimed production capacity.
- India's CITES management authority, the Wildlife Crime Control Bureau and relevant customs bodies should reconcile online importer and seller claims with legal import records, veterinary records and re-export documentation.
- B2B platforms should require permit numbers, breeding registration details and export documentation before allowing listings for Appendix I or nationally protected wildlife specimens, including eggs and chicks.
- NGOs and civil society organizations should conduct entity-resolution work covering B2B platforms, websites, phone numbers, addresses and payment details to identify real farms, brokers, copied profiles and possible scams.

NOTES

1 For the purposes of this report, the online illegal wildlife trade refers to the marketing of protected live animals, wildlife parts, derivatives and related products through digital platforms where the trade appears to contravene CITES restrictions, national law, platform policy or clear permitting expectations.

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