



Final Report: Study on live Pangolin trade in Malawi, Zambia, Mozambique, and Tanzania

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Glossary

AU	African Union
CITES	The Convention on International Trade in Endangered Species of Wild Fauna and Flora
DNPW	Department of National Parks and Wildlife (Malawi and Zambia)
EAC	Eastern Africa Community
EIA	Environmental Investigation Agency, a UK based charity that investigates and campaigns against environmental crime and abuse
ESAAMLG	Eastern and Southern Africa Anti-Money Laundering Group
FATF	The Financial Action Task Force
GIZ	The Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH, the German Agency for International Co-operation
IWT	Illegal wildlife trade, includes all stages of the trade chain such as poaching, transportation, purchase, sale, import, export, and consumption.
LATF	Lusaka Agreement Task Force
LE	Law Enforcement
LEAP	Law Enforcement and Anti-poaching Strategy of the Southern African Development Community
LWT	Lilongwe Wildlife Trust
MLAT	Mutual Legal Agreement Treaties
NPWA	National Parks and Wildlife Act, 2017 (Malawi)
RRG	Rapid Reference Guide
SADC	Southern African Development Community
TA	Traditional Authority
TH	Traditional Healer
TWIX	Trade in Wildlife Information eXchange
UfW	United for Wildlife
UNCAC	UN Convention Against Corruption
UNTOC	UN Convention on Transnational Organised Crime
WCP	Wildlife Crime Prevention
WCS	Wildlife Conservation Society
WiCIS	Wildlife Crime Information System (Malawi)
ZWA	Zambian Wildlife Act, 2015

This study was commissioned by the “Partnership against Wildlife Crime in Africa and Asia”, a global project implemented by GIZ on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) and the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV). The Partnership operates along the entire illegal trade chain in ivory, rhinoceros horn and pangolin from the countries of origin in Africa to the consumers.

Executive summary

Illegal trade remains one of the major threats to the survival of pangolin species in Asia and Africa. While trafficking of pangolin scales from Africa to Asia has been a topic of media attention and research, little is known about the live pangolin trade in Africa.

To better understand the live pangolin trade in Malawi, Mozambique, Tanzania and Zambia, EIA conducted a rapid review of existing literature, relevant laws and regulations, pangolin seizure and prosecution data, as well as a deep-dive field scoping exercise in Malawi engaging with locals and the Chinese community.

The research suggested that although successful in raising public awareness of the illegality of the pangolin trade, current outreach efforts are insufficient in motivating people to protect pangolins and ensuring the public understand the importance of stopping the trade. Limited availability and access to seizure data and prosecution outcomes undermines trade trend analysis and public comprehension of the issue.

Heavy penalties and law enforcement’s buy-and-bust approach have negative impacts in creating a public perception that pangolins have high market values. Middlemen functioning as informants to government authorities entice laypersons into the trade.

EIA findings indicate that the live pangolin trade in Malawi supplies the local exotic meat consumption by the Chinese community and to traditional healers for medicinal purposes. Due to media exposure and foreign attention on several high-profile illegal wildlife trade (IWT) cases, the current level of IWT activities in pangolins and other commodities such as ivory and timber is low. No intelligence from this study suggests that the live pangolin trade is a large-scale systemic trade to supply scales for export.

Further research is needed to gain a comprehensive understanding of live pangolin trafficking and any associated illegal trade in the region. EIA has identified a number of intelligence gaps and recommended collaborative actions by government and civil society stakeholders to address fundamental drivers of the illegal wildlife activities.

Introduction

Pangolins are the world's only scaled mammal. Each pangolin likely feeds on hundreds of millions of ants and termites in its lifetime, contributing to healthy grassland and forest ecosystems. All four species of African pangolins and four species of Asian pangolins have been experiencing catastrophic population declines due to poaching and trade to feed demands for their scales, meat, and other body parts.

In 2016, after decades of concern over the levels of legal and illegal pangolin trade, governments around the world agreed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) to ban all international commercial trade in the eight species of pangolins, their parts and derivatives.¹ With continued research, the total number of pangolin species identified and protected under CITES may increase.²

In recent years, countries in southern Africa including Malawi, Mozambique, Tanzania and Zambia have noted the majority of intercepted pangolin trafficking involved live specimens rather than pangolin parts, but the modus operandi and the consumer market of the trade are unclear.

Under the framework GIZ global project Partnership against Wildlife Crime in Africa and Asia and its Sub-regional Counter Wildlife Crime Platform II, the wildlife authorities of the four countries committed to better tackle pangolin trafficking, and EIA was contracted by GIZ to research into the matter.

For this project, EIA has been privileged to build on the work by Lilongwe Wildlife Trust (LWT), Wildlife Crime Prevention, Zambia (WCP), PAMS Foundation, Wildlife Conservation Society (WCS) of Mozambique, and TRAFFIC. The study includes a rapid review of existing research on the live pangolin trade in Africa, an analysis of the relevant international, regional and domestic legislative and policy mechanisms in the project countries, and the available seizure and prosecution data.

EIA conducted interviews with villagers, Traditional Authorities (TAs) and Traditional Healers (THs) in Central and Southern Malawi, as well as field scoping with a focus on the local Chinese community to obtain a better understanding of the drivers, routes, and consumer groups of live pangolin trade in Malawi.

The aim of the study is to generate evidence-based recommendations to the respective government Wildlife Authorities of Malawi, Zambia, Mozambique, and Tanzania, as well as the Partnership against Wildlife Crime in Africa and Asia program to combat the increasing national and regional live pangolins trafficking.

Background

EIA conducted open-source online research using the key words "pangolin", "live pangolin", "trade", "use", "Africa" and the project country names in combinations on Google, PubMed, and University College London's library service Explore. EIA also gathered relevant research reports by NGOs including WCP and TRAFFIC, and consulted academia contacts from the field of African pangolin conservation. This included the IUCN Pangolin Specialist Group, which is currently developing a regional conservation action plan for pangolins.

Overall, studies on the use and trade of live pangolins in Africa are limited. The few existing research studies were mostly conducted in West and Central Africa (Benin, Togo, Ghana, Gabon, Cameroon, Equatorial Guinea) and South Africa.

A study carried out in Ghana in 2013-14 showed the level of pangolin trade for bushmeat was significantly underestimated as the animals were traded almost exclusively outside the formal markets.³ In Gabon, the pangolin was reported as the most sought-after species by Asian migrant workers.⁴ In Benin, West African foreigners and local Chinese communities merged as consumers over the past decade, and that the Chinese only bought live pangolins.⁵

Pangolins are traded for bushmeat and traditional medicine. Spiritual use was more commonly cited than conventional biomedical diagnosis. Common purposes of use include treatment of convulsion, rheumatism, wounds, impotence, female infidelity and sexual bewitchment. In South Africa, whole pangolins are used to help chiefs stay in power, bring luck and promotion, and fend off evil spirits.⁶

In Malawi, pangolin was reported as a frequently used species by THs.⁷ A more recent study suggested that community engagement projects had limited impact on wildlife consumption and hunting. Poverty was recognised as the key driver of hunting as well as bushmeat consumption, although the correlations are complex, and more research is needed to better understand and evaluate the success of law enforcement and community outreach programmes.⁸

In Mozambique, Temminck's pangolin is associated with rain, and live pangolin can be a sign of abundance or famine (likely dependent on the region). Research suggested that pangolins are consumed as bushmeat though not as frequently as in West and Central Africa. They are also traded for medicinal purposes.⁹ A 2014 study suggested there was ambiguity in the level of protection of pangolins, as it was unclear whether Temminck's pangolin is considered a rare species or a species threatened with extinction.¹⁰

Studies on the extraction and use of pangolins in Tanzania are lacking. There was report of consumption of pangolins for bushmeat in the 1990s, and historic studies showed the use of Temminck's pangolin and pangolin scales for medicinal purposes, such as to reposition foetus in women and help expel the placenta following partus. Crushed scales were used for stopping nosebleeds. In Tanzania and Malawi, sighting a pangolin was believed to be a sign for rainfall. In the 1990s there were reports of sacrificing pangolins to predict rain in Southwest Tanzania, though the practice was rare. There was also use of pangolin's scales to ward off bad people, bad luck and wild animals.¹¹

In Zambia, pangolin-use motivations include gifting to chiefs for social influence, consumed for food or traditional medicine, blasting (a traditional practice where a pangolin is used in a magic ceremony as a token to induce monetary gains for the client), protection against bad luck, traditional ceremonies, and control of sexual fidelity.¹²

A high level of pangolin seizures was reported 2018-2019. Between 2020 - 2022, seizure records from 27 locations showed an overall, but Lusaka, Kitwe, Mufumbwe, Mumbwa, Serenje, Kasama, Nakonde and Mfuwe recorded increases in incidents. Most arrests between 2018-2022 were of traders and poachers. Those arrested included defence and security officials and government employees, with an increase in their involvement over time. Most pangolin cases occurred in Lusaka and Solwezi. Analysis conducted by WCP and DNPW

suggested that traders may be increasingly taking the animals directly to buyers/locations where they know they will find buyers, such as Chinese companies, to avoid detection by Law Enforcement (LE).¹³

Kahler and colleagues suggested that LE and NGOs did not believe that strong enforcement measures are effectively deterring traffickers from using the main roads to move illegal products.¹⁴ In Zambia, there are harvesters who use the pangolin themselves, as well as harvesters working on direct behalf of a buyer or through a middleman. Informal middlemen typically do not have information about the entire trade chain, as multiple middlemen often get involved between poacher and buyer. There are strong existing trafficking routes and international markets in Lusaka and Livingstone. The transport is often by road to avoid checks using refrigerated or cooled trucks to ensure trafficked specimens remain fresh. Foreigners can avoid checks more easily. Legal goods may be used as concealment. Buyers are mostly non-local, frequently described as Indian or Chinese.¹⁵

There is good public awareness of the illegality of pangolins. WCP and DNPW are currently conducting a study into the drivers of the illegal pangolin trade in Zambia through household surveys and focus group discussions in hotspot trade areas. This study will be used as a baseline to design a behavioural change campaign with DNPW to address the illegal pangolin trade. This intervention will create awareness of the ecological value of pangolins to the environment, emphasize the legal implications of illegal possession of pangolins and their products and encourage the reporting of illegal pangolin activities to DNPW. The study and campaign are due to be completed and designed respectively by the end of 2024 and are also supported by the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) as part of the Partnership against Wildlife Crime in Africa and Asia program.

Review of legislation and policies

Combatting IWT and mitigating its impacts requires a complex, multi-disciplinary strategy. It is essential that national legislation determine the level of protection afforded to identified species, regulate the use of these species, and set out appropriate offences and penalties.

From discussions held with GIZ it is understood that all four countries have ongoing processes to review and rationalise their respective domestic legislation to strengthen efforts to combat IWT, including live pangolin trade, and that some have advanced this process further than others.

Recognising the cross-border nature of IWT, regional platforms, strategies and policy mechanisms to strengthen cooperation, collaboration and intelligence sharing have been broadly identified.

EIA sourced information from governments and NGO partners, open-access online databases such as EcoLex, FAOLEX, WildLEX, country-specific African Legal Information Institutes, as well as from country-specific parliament and government department websites.^{16,17,18,19,20} Rapid Reference Guides (RRG) for the investigation and prosecution of wildlife and forestry crimes were also referenced.^{21,22}

International Agreements and Tools

All four study countries are signatories to CITES.²³ Under the Convention, Parties are expected to develop and implement domestic legislation that meets the minimum requirements set out in the Convention.

Domestic measures are assessed by the CITES Secretariat and placed in one of the following Categories: Category One - generally meets requirements for implementation, Category Two - generally does not meet all requirements, and Category Three - generally does not meet requirements.²⁴

As of November 2023, the domestic legislation of Malawi and Tanzania (including potentially that of the semi-autonomous region of Zanzibar) are classified as Category One. Zambia and Mozambique are classified as Category Two, and it is understood that both countries are engaged with the CITES Secretariat to ensure their domestic legislation conforms to Category One.^{25,26}

Beyond CITES, there are several international agreements applicable to matters of illegal wildlife trade, such as United Nations Convention on Transnational Organised Crime (UNTOC) and United Nations Convention Against Corruption (UNCAC).^{27,28} All four study countries are signatories to both UNTOC and UNCAC. They have implemented domestic legislation to give effect to these Conventions, including mutual legal assistance in criminal matters, financial crimes and proceeds of crimes, anti-money laundering, and anti-corruption measures and related offences and penalties. Regarding Mutual Legal Agreement Treaties (MLATs) to tackle transnational wildlife crime, only Mozambique's MLAT with Vietnam signed in 2018 was identified.²⁹

Regional Platforms and Mechanisms to Address Illegal Wildlife Trade

Apart from the Sub-regional Counter Wildlife Crime platform between Malawi, Mozambique, Tanzania and Zambia, other relevant continental and regional platforms include the African Union (AU), the Southern African Development Community (SADC), the East African Community (EAC) and the Lusaka Action Task Force (LATF). All of the study countries are members of both the AU and SADC, while Tanzania is also a member of the EAC.^{30,31} Zambia and Tanzania are parties to LATF and Mozambique is a signatory.³² Emanating from these platforms are a number of Protocols for members to sign or ratify, and Strategies that Member States are encouraged to implement.³³

For the four countries, the implementation of the AU Strategy Combatting the Illegal Exploitation of Wild Fauna and Flora 2015-2025 is relevant, as is the SADC Law Enforcement and Anti-poaching Strategy 2022-2032 (LEAP).³⁴ In particular, the LEAP Strategy outlines several mandatory actions, not least the development and updating of National Counter Wildlife Trafficking Strategies. Members are required to establish national Wildlife Crime Units (WCU's); establish a national wildlife crime intelligence database linked to the WCU; and develop or update RRGs for investigating and prosecuting wildlife crime.

Financial investigations are an increasingly important and valuable tool to combat and disrupt IWT. All of the study countries are members of the Eastern and Southern African Anti-Money Laundering Group (ESAAMLG), a regional body that seeks to combat money laundering and financing of terrorism and proliferation by implementing the Financial Action Task Force (FATF) Recommendations.³⁵ This includes the guidance provided by FATF

in 2020 for members on measures they can take to combat money laundering from IWT.³⁶ Member countries are encouraged to develop and implement National Strategies and address recommendations identified in the Mutual Evaluation and Follow-up Process. In 2022, ESAAMLG signed a partnership with Unite for Wildlife (UfW) to work together to address the illegal wildlife trade using 'follow the money' principles and money laundering regulation through multi-agency co-ordination mechanisms.³⁷

SADC Trade in Wildlife Information eXchange (TWIX) and Eastern Africa-TWIX

The TWIX platforms are regional-level online tools developed to facilitate information exchange and international co-operation between wildlife law enforcement and management officials. Malawi, Mozambique, and Zambia are members of the SADC-TWIX, while Tanzania uses Eastern Africa-TWIX.^{38,39}

Although not meant as a mechanism for sharing confidential information, these TWIX platforms offer significant advantages and opportunities for countries to improve their collaboration, cooperation, and information sharing. Using TWIX can significantly reduce unnecessary bureaucratic delays and can act as a useful shared repository of legislative instruments, training materials and contact information of different law enforcement agencies and officers.

There has been a relatively low usage of the SADC-TWIX by Mozambique and Zambia, while Malawi has been somewhat more active. In the case of Mozambique, it is understood that language is the primary barrier. TRAFFIC, as the mandated managers of the SADC-TWIX, are executing a barriers analysis using an external expert consultant to improve usage of the system.

Domestic Protection of Pangolins

The domestic legislation of each of the study countries was assessed to identify firstly, whether pangolins have been granted protected status and to what extent. Secondly, whether prohibited activities regarding the taking or capturing, possessing, transporting, selling, importing or exporting, or any attempts thereto, have been identified and clearly defined. Thirdly, to identify what offences and associated penalties have been established.

Malawi

Malawi has undertaken a detailed review and amendment of its domestic legislation relating to illegal wildlife trade since 2015, and has made significant strides to identify and close loopholes and address deficiencies.⁴⁰ This review has resulted in an extensive amendment in 2017 to the National Parks and Wildlife Act (NPWA), along with the amendment of numerous associated regulations and declaration orders.⁴¹ Importantly, the 2017 NPWA regulates the conservation and management of wildlife, both in and outside of protected areas. Significant powers have been granted to officers, including inspection, searching, confiscation, seizure, and arrest.

Reading the 2017 NPWA (the primary legislation) together with the subsidiary regulations set out in the NPWA (Protected, Endangered and Listed Species Declaration) all eight pangolin species are recognised as 'Listed Species'.^{42,43} Temminck's pangolin is also explicitly named, ensuring that the species naturally occurring within Malawi's territory is identified and protected.

Section 2 of the NPWA further ensures comprehensive protection of any listed species by giving a broad definition of a specimen as any wild plant or animal, **alive** or dead, whether or not native to Malawi, and any readily recognizable part or derivative of such plant or animal.

There are a wide range of identified offences relating to listed species, including:

- Section 47: the taking or hunting of a listed species without a licence or permit (ie poaching);
- S86: the possession, buying, selling, transferring or receiving in transfer, or attempts to possess, buy, sell, transfer or receive in transfer any specimen of a listed species without the requisite licence;
- S98 and s99: the importation, exportation, re-exports or attempts to import or export or re-export any specimen of a listed species without a valid permit.

The above offences are punishable upon conviction by imprisonment for a term of a maximum of 30 years.⁴⁴ As such, these penalties ensure that these offences are recognised as 'serious crimes' as recognised by UNTOC. To ensure that these very severe penalties are fair and appropriate, a Sentencing Guideline has been prepared, setting out the imprisonment starting point at six years. The Guideline further identifies mitigating factors for the court to consider.⁴⁵ This nuanced approach to the application of such stringent penalties is important to distinguish between low-level poachers and organised traffickers and syndicates.

Additional offences that could apply to wildlife crime, such as corruption, forgery, conspiracy, money laundering are covered by ancillary legislation such as the Penal Code, Corrupt Practices Act, Customs and Excise Act and Financial Crimes Act.

Zambia

The primary legislative instrument regarding protected species and CITES-listed species, is the Zambian Wildlife Act No. 14 of 2015 (ZWA), read together with the Statutory Instrument No. 42 of 2016: Zambia Wildlife (Protected Animals) Order.^{46,47} The Protected Animals Order simply lists 'pangolin'. It is unclear whether the listing refers to both, or either, of the two native species, the Temminck's pangolin and the white-bellied pangolin, or to all eight pangolin species. As such, it should be noted that the Order is not in compliance with the ZWA, which requires the scientific name to specify a wild animal as a protected animal.

The main prohibitions and offences relating to live pangolin trade are provided by s98, s101 s102, s103 and s105 read with s130(1) of the ZWA. A conviction for the illegal possession, selling, purchase, import or export, or attempts thereto, of a protected animal will result in a prison sentence of five to ten years for a first offence. Subsequent offences are punishable by imprisonment of seven to 15 years without the option of a fine.

A lesser offence of unlawful possession or dealings of live wild animals carries a penalty of a fine of Zambian Kwacha 120,000-180,000 and/or imprisonment for a maximum of seven years for a first offence.⁴⁸ Subsequent offences are penalised by a fine of ZK 150,000 and/or imprisonment of six to ten years.

There are a range of offences that are additionally potentially applicable to live pangolin trade. The Statutory Instrument provides that the hunting of an animal, bird or reptile specified in the Schedule without a valid licence or permit is prohibited throughout the

Republic. However, the current definition of hunting as ‘to kill or the doing of an act immediately directed at killing’ does not clearly identify the act of removal, capture, take, or attempts thereto. S37 sets out an offence for the unlawful hunting of protected animals, attracting the same general penalties identified in s136. The officers of the national wildlife authority are afforded a wide range of powers and duties, which are generally deemed by EIA as sufficient.

The 2007 CITES Regulations, which are being updated, does make provision for offences relating to import, export, re-export and possession of any CITES-listed specimen to be punished by imprisonment for a term not exceeding five years, or a fine not exceeding 50 000 penalty units (value unknown) or both.⁴⁹ The Schedule of CITES-listed species is out of date, recognising pangolins as an Appendix II species.

Regarding ancillary legislation applicable to wildlife crimes, Zambia’s Prohibition and Prevention of Money Laundering Act 44 of 2010 makes provision for the offence of money laundering with a penalty of a maximum of ZK51, 000 and / or imprisonment of a maximum of 10 years. These financial crime offences may be applicable in more organised criminal activity and can be enforced through Zambia’s Drug Enforcement Commission’s Anti Money Laundering Investigations Unit. An interagency taskforce for organised crime including wildlife crime has been implemented and involves the Department of National Parks and Wildlife, the Drug Enforcement Commission, the National Prosecution Authority and Wildlife Crime Prevention. Additionally, the Forfeiture of Proceeds of Crime Act 19 of 2010 ensures that the possession of proceeds of crime constitutes an offence.

Recommendations:

1. The revision of the ZWA and any related Statutory Instruments should ensure that all CITES Appendix I listed species, including those non-native to Zambia, are provided maximum protection. The domestic species should be identified by scientific name.
2. The amendment of the definition of hunting to include acts such as taking, capturing, removal or attempts thereto should be considered.

Mozambique

Law No. 16/2014 on Protection, Conservation and Sustainable Use of Biodiversity, amended by Law No. 5/2017 and implemented through Decree 89/2017, together with the associated Decrees 34/2016 approving the Regulation on International Trade in Endangered Species of Wild Fauna and Flora are the primary legislative means by which trade in protected species is governed in Mozambique.^{50,51,52,53}

Article 46 of Law No. 5/2017 provides for the publication of a list of protected species. No such list could be sourced, and it is unclear as to whether a list has in fact been published. Article 54(3) of Law 16/2014 states that the illegal exploitation, storage, transportation or commercialisation of species on the country’s list of protected species is an offence punishable by a fine ranging from 50 to 1,000 minimum civil service wages.

There are several offences relating to CITES-listed species, which automatically applies to all eight pangolin species including the Temminck’s pangolin native to Mozambique.

The most serious offence is set out in Article 62 of Law No.5/2017. The illegal removal of any element of a species listed in Appendices I and II of CITES is punishable upon conviction by a

prison sentence of 12 to 16 years and a corresponding fine. A further offence relating to CITES Appendix I species is provided by Article 54(4) of Law 16/2014: the violation of the provisions of CITES is punishable by a fine from 50 to 1000 minimum civil service salaries (announced to be 8758 metical for 2024).⁵⁴

Article 26 1) a) of Decree 34/2016 makes it an offence to export, import, re-export, and any attempts thereto, any specimen of the species included in Appendix I of CITES without a valid permit or certificate. This offence carries a penalty of 40 to 500 minimum civil service wages.

Prohibited activities in different categories of conservation areas are set out in Chapter VII, Article 78 of Law No 5/2017. Hunting (which is widely defined to include the act of seizing) is prohibited in national parks, nature reserves and special reserves. These offences are punishable by a fine ranging from 11 to 50 minimum salaries of the civil service.

The empowering legislation confers a wide range of powers to wildlife authorities and other LE officials, including powers of search, inspection, seizure and arrest.

Recommendations:

1. Publish a list of protected species if not already done so.

Tanzania and Zanzibar

For the purposes of this review, a distinction is made between the legislation applicable to mainland Tanzania and the semi-autonomous region of Zanzibar.

The Wildlife Conservation Act, Chapter 283 Revised Edition 2022 is the primary legislative instrument for the implementation of CITES and the protection of wildlife in mainland Tanzania.⁵⁵ There are also substantial regulations for the implementation of CITES.⁵⁶

Under s94 1) of the Act, the Minister of Natural Resources and Tourism is empowered to declare any species of wildlife as protected species by order in the Gazette. Applying S94 2), it is understood that all eight pangolin species, including the native pangolin species, namely the giant ground pangolin, Temminck's pangolin and white-bellied pangolin, are afforded protected species status. However, it is noted that the First Schedule to the Act, which identifies species of fauna and flora, does not include any of these pangolin species. Fortunately, in late 2023, a new Schedule to the existing CITES Regulations containing the current CITES Appendices I-III was promulgated⁵⁷. This Schedule clearly identifies and names all eight species of pangolin, thus affording them comprehensive protection.

Additionally, s85 and s86 ensure that there are severe penalties for a range of offences that can be applicable to the live trade in pangolins (native and non-native species) and the violation of CITES. The determination of the penalty is dependent upon the value of the government trophy in question. No information could be sourced regarding the value of live pangolins. The most severe penalty imposes a prison sentence of 20 to 30 years and / or a fine not exceeding five million shillings or ten times the value of the trophy, whichever is larger amount.

In addition, there are several lesser offences relating specifically to protected species and the trade in CITES listed species which are not elaborated on further here.⁵⁸

The Act together with the 2018 CITES Implementation Regulation confers a wide range of powers to wildlife authorities and officials, including powers of search, seizure, arrest and investigation.

Tanzania has recently revised a wide range of ancillary legislation applicable on the mainland, such as the Penal Code in 2022, the Anti-money Laundering Act in 2019, the Prevention and Combating of Corruption Act in 2019, and importantly, the Economic and Organised Crime Act in 2022.

Significantly, the First Schedule of the revised Economic and Organised Crime Act explicitly recognises certain offences under the repealed 2016 Wildlife Conservation Act as Economic Offences.

In 2022, Tanzania's National Prosecution Service published a Plea Bargaining Guideline, which seeks to increase the consistency, transparency and efficacy of the plea bargain system as permitted under Tanzanian criminal law.⁵⁹ It is understood that the 2022 Plea Bargain Guidelines have been developed and implemented to curtail previous practices of exploiting the plea bargaining process for profit, for example through corruption. In 2023, Tanzania published an updated Sentencing Guideline which clearly identifies and takes cognisance of the minimum penalties and mandatory sentences outlined in the Revised Edition of the Wildlife Conservation Act and other key legislation.⁶⁰ Sentencing guidelines have been developed for Corruption Offences, but not specifically for wildlife trafficking offences. In 2018, Tanzania developed a comprehensive RRG for Forestry and Wildlife Crime, which should now be updated to reflect the changes in key pieces of legislation.⁶¹

For Zanzibar, several key pieces of legislation could not be sourced for this review, including the circa 2018 amendment of the Forest Resources Management and Conservation Act of 1996 and regulations issued under s73 and s76(1) of the Forest Resources Management and Conservation Act. No Rapid Reference Guideline or Sentencing Guidelines could be sourced.

The Forest Resources Management and Conservation Act of 1996 as amended, is the primary legislative instrument for the implementation of CITES and the protection of wildlife.⁶² It is understood that the primary amendments made in circa 2018 were to make provision for the relevant Minister to enact Regulations for CITES in Zanzibar.⁶³ Section 73 1) and 2) of the Act empower the Minister of Agriculture, Irrigation, Natural Resources And Livestock to issue regulations of listed wild animals and wild plants which are to be totally protected, including endangered species. The list of protected species initially identified in Appendices 1 to 5 of the Act does not specify any of the eight recognised species of pangolin, however this is most likely because the distribution range of pangolin species found in mainland Tanzania does not extend to Zanzibar.⁶⁴

Although provision is made in the Act for penalties and offences relating to listed animals, only one general offence in s91 (e) relating to the export or attempted export in contravention of the Act is deemed applicable to all wild animals, which could potentially apply to matters of live pangolin trafficking. This offence attracts a minimal imprisonment sentence of no less than six months, or a fine of 300, 000 shillings or both. As such, this penalty does not meet the definition of serious crime and is significantly lower than that of mainland Tanzania, thus creating a loophole for exploitation by criminals. Given the significant role played by Zanzibar as a key transit point for IWT products from Africa to the rest of the world,

the offences and resultant penalties that apply to all wildlife and not just protected native species should be significantly strengthened to more appropriately deter IWT, including live pangolin trade.⁶⁵

Zanzibar's CITES Regulations updated and promulgated in 2019 specifically states that the Regulations apply to all animals and plant species listed in all three CITES appendices, and further defines animal specimens as either living or dead.^{66,67} As such, the 2019 Regulations do afford all eight pangolin species protection against unlawful possession, transit, import, export, or re-import and other such general offences outlined in sections 52 and 54 of the Regulation. These offences carry a penalty of a fine not less than 20 to 30 per cent of the value of the consignment, or imprisonment of not less than six months, or both. As no Sentencing Guideline or Rapid Reference Guideline could be sourced, it is difficult to identify whether maximum custodial sentences of at least four years are being recommended for CITES-related offences involving organized crime or trafficking in endangered species.

Zanzibar does have ancillary legislation potentially applicable to IWT, such as the Zanzibar Anti-Corruption and Economic Crimes Act, 10 of 2009 (as amended), the Zanzibar Penal Act, 6 of 2018 (as amended), and the Anti-money Laundering and Proceeds of Crime Act, 1 of 2022 (as amended).^{68,69,70} At a cursory glance, penalties in the Anti-money Laundering and Proceeds of Crime Act are applicable generally to IWT matters and are stronger than those in the 2019 CITES Regulation and the Forest Resources Management and Conservation Act. There does not appear to be the recognition of IWT as a serious offence, however as the CITES Secretariat has deemed Zanzibar's new CITES Regulations as sufficient there may be additional processes underway to rationalise and strengthen domestic legislation.

Recommendations for mainland Tanzania:

1. A rationalisation of the current Wildlife Conservation Act and the Economic and Organised Crime Act should be completed.
2. The 2018 RRG should be updated to take into account the numerous revisions made to the Wildlife Conservation Act, the Penal Code and the Economic and Organised Crime Act.

Recommendations for Zanzibar:

1. Significantly strengthen the penalties in the Forest Resources Management and Conservation Act and the 2019 CITES Regulations against unlawful activities relating to protected and non-protected species to better deter IWT, including live pangolin trade, by ensuring that trade in endangered species, including organised crime, is recognised as a serious crime.
2. Under the 2019 CITES Regulations, publish and regularly update, the CITES Appendices of Listed Species.
3. Undertake a rationalisation exercise of all relevant ancillary legislation to ensure that IWT, including live pangolin trade, is considered a serious offence with appropriate penalties.
4. Consider the development of a Rapid Reference Guide and Sentencing Guideline to strengthen efforts to tackle IWT, including live pangolin trade.

Summary of the review

Generally, Malawi, Mozambique, Tanzania and Zambia have all adopted measures to tackle IWT and to ensure the domestic implementation of CITES, to varying degrees.

All four countries recognise CITES listed species, which automatically includes pangolins, as 'protected' or 'listed', either as a general provision relating to the implementation of CITES, or through a separately published schedule of protected or listed species.

All of the countries prohibit a wide range of uses of protected species through their primary legislation, including hunting, taking, capturing, possessing, buying, selling, transferring, importing, exporting, and re-exporting without the necessary authorisations. Penalties including the imposition of fines and /or terms of imprisonment usually beyond five years have been put in place. This term of imprisonment is in line with that recommended by CITES. In the case of Zanzibar, the list of protected animals does not include pangolins as they are not native species, however given the role of Zanzibar as a key transit country for IWT, the offences and resultant penalties that apply to all wildlife and not just protected native species should be significantly strengthened to more appropriately deter IWT, including live pangolin trade.

Rapid Reference Guidelines and Sentencing Guidelines are key tools to assist authorities in the identification, prosecution and proportionate sentencing of IWT (and live pangolin trade) related offences. As far as can be determined, RRGs have been developed, or are in the process of development, by all four countries (save Zanzibar), and Sentencing Guidelines are being used in Malawi and Tanzania (mainland).

Seizure and prosecution

Malawi

Malawi has a national wildlife crime database which is in use and is still under development, and at present is largely managed by LWT. This system, called the Wildlife Crime Information System (WiCIS), holds comprehensive information relating to all wildlife crime arrests and prosecutions in Malawi, alongside current legislation and domestic case law. The data is well-structured with a unique reference assigned to each incident, and comprehensive information documented about the seizure date, district, specimen seized, suspect details and prosecution outcomes. At the time of writing, LWT was in the process of migrating the data from WiCIS to a new platform that is more user-friendly, which will improve accessibility of the information.

Between 2016 and September 2023, there were 140 seizures involving pangolin as government trophy, 292 persons were arrested and 290 were brought to court. Most of the seizures took place in the district of Lilongwe (44 incidents), followed by Machinga (16), Blantyre (14), Mangochi (13) and Mchinji (13).

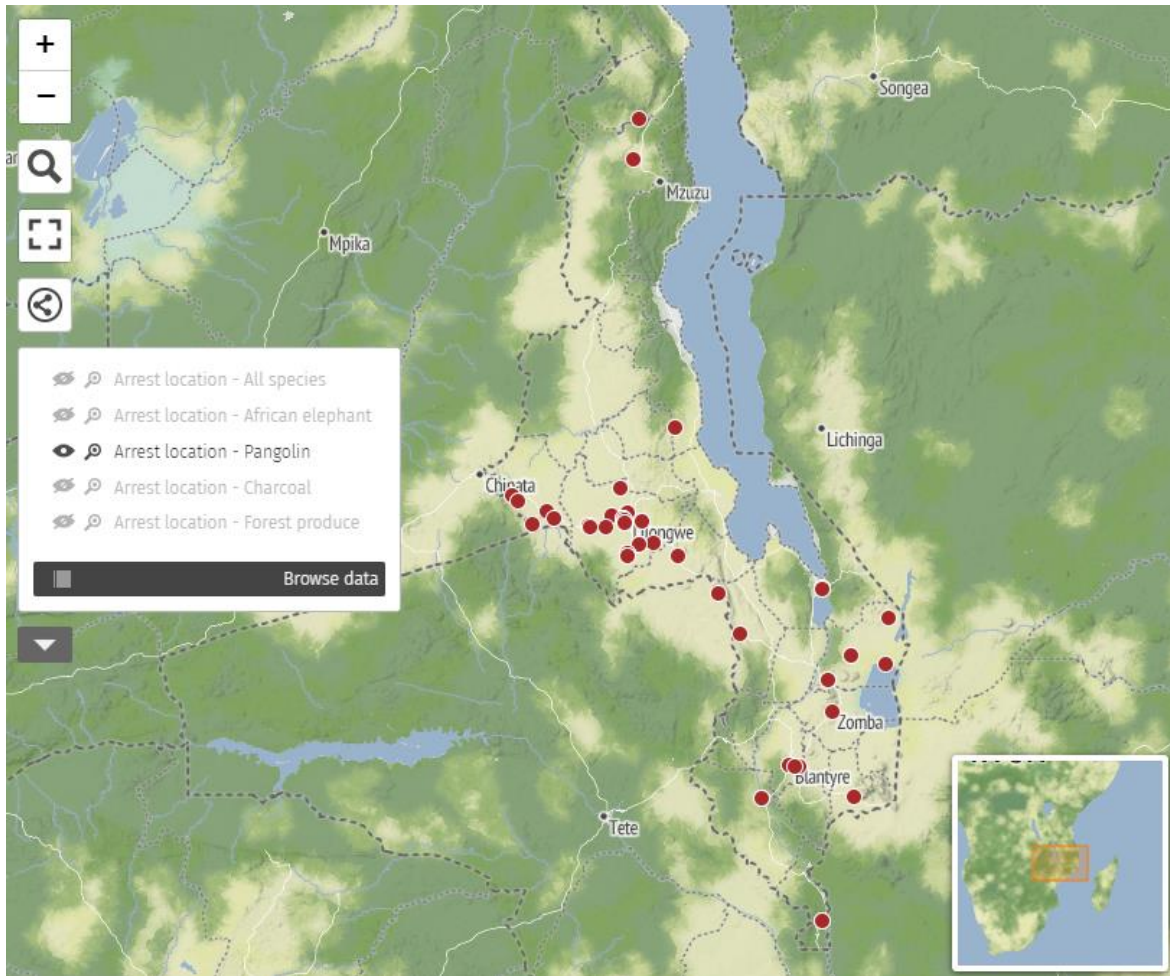


Figure 1. Arrest locations for pangolin related seizures 2018-2023. Map and data monitored by LWT, extracted 13 July 2023

Of the 1662 defendants logged in WiCIS that includes all wildlife related cases, only five were charged under the Financial Crimes Act. Three of the five are key members of the LIN-ZHANG network, and two of the five were also charged under the Exchange Control Act. One was charged under the Corrupt Practices Act. This suggests that there was limited follow-up investigations post-seizure to trace illicit money flows and unroot trafficking networks.

From the interviews with prisoners in Lilongwe, it was noted that those sentenced in Lilongwe received shorter custodial sentences than those sentenced in Dedza and Kasungu. However, it is doubtful if one can draw the conclusion that courts in Lilongwe deliver shorter sentences in general when reviewing the outcomes of all wildlife cases in these regions in WiCIS. Though the average length of sentence for Lilongwe is lower than that of Dedza and Kasungu, many cases did not have a region logged, hence creating a large confidence interval.

Zambia

The Zambian Department of National Parks and Wildlife, in partnership with WCP have conducted 642 pangolin seizures from the illegal trade between 2017 and June 2023 resulting in 587 prosecutions. Live pangolins were most seized (332 of 642 seizure incidents), followed by pangolin skins (191 incidents), and pangolin scales (130 incidents). The largest quantity of pangolin scales seized in country was 5kg. Pangolin seizures spiked in 2019-2020 (161 and 152 incidents respectively) and have started declining slightly from 2021.

The conviction rate of pangolin cases increased from under 50 per cent in 2018 to about 70 per cent in 2022. The custodial sentences issued also increased slightly over this period.

In court, 61 per cent of pangolin cases resulted in a conviction, 27 per cent were acquitted, 8 per cent had the case against them withdrawn, 4 per cent were discharged, and two entered plea bargains. An anomaly case was found where a man arrested with pangolin scales in Choma was sentenced to five months imprisonment instead of the prescribed minimum sentence for this offence. The heaviest sentence was 72 months. The absolute majority (266 of 321) of the convictions received a 60 months custodial sentence (the minimum sentence for illegal possession). Lusaka is the location with most arrests, followed by Mumbwa and Solwezi.

However, there is no centralised, public seizure and prosecution database hosted by the government. It is challenging for NGOs to collate comprehensive data such as seizure location, details about specimens seized, and prosecution outcomes. This hinders effective tracking of criminal justice and data analysis to identify trade hotspots and trends.

Mozambique

Open-source reports of pangolin seizures in Mozambique is lacking. EIA only recorded five incidents since 2011, involving pangolin scales, carcasses and skeleton. In four of these cases, pangolin parts were seized together with parts of other protected species such as lion teeth, leopard skin, elephant ivory and rhino horn. EIA has not been able to obtain additional data from confidential sources during this project. As Mozambique is a known source country for pangolins seized in Malawi, the low number of seizure incidents reported is unlikely to be a realistic reflection of the level of illegal trade. EIA is unable to identify trade hotspots in Mozambique base on the data available.

Tanzania

Open-source reports of pangolin seizures in Tanzania is lacking. EIA collated 44 seizure incidents between 2013 and 2023. Only four incidents reported the items seized as live specimens. 16 incidents reported the type of pangolin item seized as unknown/whole unknown state. The seizure locations documented are outspread and no clear live pangolin trade hub can be identified. The Tanzanian Judiciary hosts TanzLII, an online legislation and judgement database. There are also court case outcomes uploaded onto WildLEX. However, the number of wildlife cases digitalised is limited, and pangolin cases even more so. Most of the cases uploaded onto the mentioned platforms are cases from the Court of Appeal or the High Courts, while wildlife crime cases are usually prosecuted at Magistrate or District courts. Different sets of cases were found through open-source research, such as media reports, TanzLII and WildLEX, hence making it difficult to assess the actual level of enforcement and prosecution success.

According to the collated court records, criminals can receive highly varying penalty levels, from one year imprisonment for two live pangolins to a heavy sentence of 20 years imprisonment for a quantity of government trophies as low as two pangolin scales, depending on the offence for which they are convicted. The option of plea bargain under the previous plea bargain system sometimes allowed high level traffickers to avoid prison sentence all together, as in the case of Gakou Fodie whose sentence was a fine of 200 million Tanzanian shillings. Another shortfall noted is that a number of convictions from the Magistrate or District Courts were later quashed in the High Court or the Court of Appeal due

to weaknesses in evidence secured, including the lack of appropriate forensic examination to confirm the type of wildlife products seized. This may be due to resource limitations in obtaining analysis from certified laboratories or in securing statements from expert witnesses. As a suggestion, a handbook defining suitable institutions/parties to carry out forensic identification in each district, a wildlife identification guide for law enforcement officers, and capacity building for investigators prosecutors to promote the application of the Rapid Reference Guide⁷¹ can help improve criminal justice.

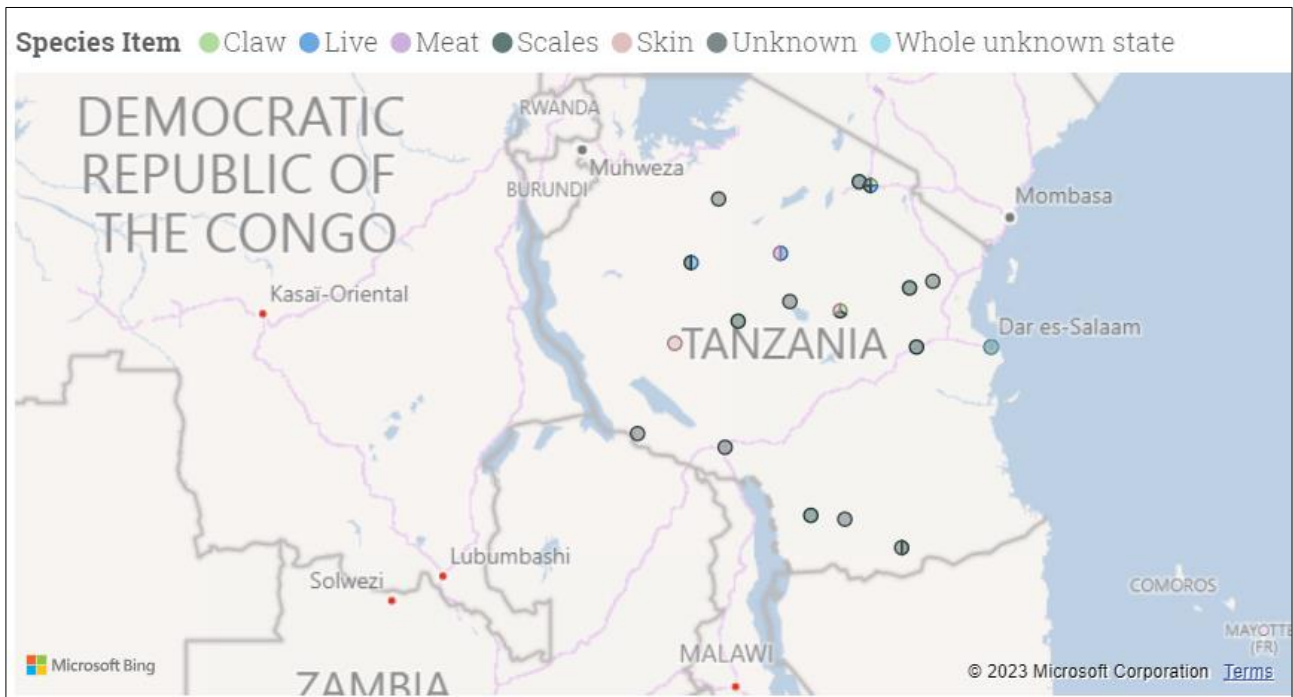


Figure 2. Seizure of pangolin and their derivatives in Tanzania 2013-2023, extracted 6 Nov 2023.

Challenges beyond seizures

Generally, pangolins do not fare well in captivity, and seized live specimens are frequently injured, dehydrated, or compromised in other ways. If released from seizure without proper veterinary assessment and rehabilitation, there is a significant risk that the animal would not survive due to ill health.

The timely rescue, rehabilitation and release of seized live pangolins remain challenging as law enforcement entities lack standard protocols and facilities needed for such a process. Not all project countries have a guideline in place regarding how evidence can be documented and presented at court speedily to avoid delays in rehabilitation and release.

Using seized specimens for captive breeding of pangolins or farming pangolins as a strategy to counter trafficking is not feasible, and both practices are strongly discouraged^{72,73}. Pangolins have very specific dietary requirements, their environmental needs differ between species, and they are highly susceptible to stress. Despite decades of efforts, successful captive breeding remains an oddity⁷⁴. Captive facilities keep animals in unnaturally high concentrations which increases risks of zoonotic disease emergence⁷⁵. The commercial breeding of pangolins should not be promoted as it commercialises and commodifies wildlife, which in turn will sustain the demand and market for these endangered species, and ultimately undermine demand reduction efforts to tackle pangolin trafficking.

Malawi Deep-dive

Traditional pangolin uses and factors influencing the pangolin trade

46 in-person interviews were conducted in 19 locations in the Central and Southern region where the majority of pangolin seizures have taken place, including Kamoyo, Mitundu, Dedza, Lizulu, Ntcheu, Chapananga, Nsená, Ndakwera, Ngabu, Kanyimbi, Mkotamu, Mbenje, Machinga, Nsanama, Liwonde, Ntaja, Chiponde, Mangochi, and Lilongwe Maula Prison.

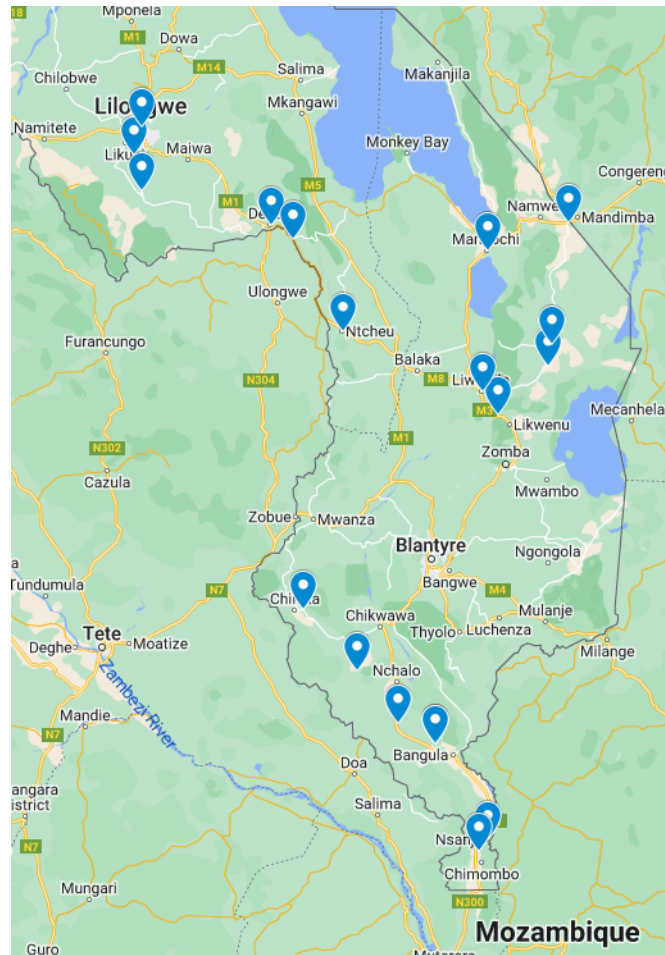


Figure 3. The locations of overt interviews

The interviewees included 12 THs, 18 local laypersons, 6 TAs, and 10 prisoners. All were Malawians, 10 were women, 36 were men. A DNPW officer was present as translator, and apart from one TA, one TH and one prisoner who spoke English, all interviews were conducted with the assistance of the translator. For the interviews with the 10 convicted persons, three prison officials were also present during the interviews. The prisoners were men aged 24-54, all first-time offenders. Eight were sentenced in Lilongwe, one in Dedza and one in Kasungu. Those sentenced in Lilongwe received a sentence of 36-60 months, the one in Dedza 108 months and the one in Kasungu 132 months.

The interviews with TAs and prisoners were audio-recorded and transcribed verbatim. Written notes were taken for the other interviews to reduce tension and suspicion during the meetings. Observation notes were also taken. The transcriptions and notes were analysed using the Theoretical Domains Framework (TDF) and the Capability Opportunity Motivation-Behaviour (COM-B) model to explore the facilitating and hindering factors to the use and

trade of pangolins. Using the behaviour change wheel as a guide, recommendations on interventions are made based on these factors mapped.^{76,77}

Knowledge

In traditional medicine, pangolins are used for treating eye conditions, epilepsy, rheumatism; determining the prognosis of a sickness; for protection against bullets, knives and fights, witchcraft; protection of homes against thieves and strong wind; protection of farms and crop; for love reconciliation; for making money; and for getting employment, promotion and career success. The form and parts of pangolins used include live animal, blood, claws, fat, heart, and scales. The use of pangolin was not suggested to be linked or limited to any ethnic group.

14 of the 18 interviewed laypersons, nine of the 12 interviewed THs and all six of the interviewed TAs had heard of pangolins. A few laypersons said they have seen pictures of a pangolin in the news or social media, but the majority had never seen a pangolin or pangolin parts in real life. Most interviewees were aware that the use or trade of pangolins and their parts and derivatives is illegal.

"Interviewee 7, TH, Lizulu: For example, the pangolin is now prohibited since three years back. This has affected my business a lot because the government forbid it."

"Interviewee 27, TA, Liwonde: The law does not allow people to hunt and use pangolins."

However, knowledge about the protection, biology, and ecologic function of pangolins, is still lacking. Only three of the 10 interviewees at Maula prison said they had heard of the pangolin prior to their arrests, and eight of them did not know that pangolin trade/use was illegal. One layperson said that locals believed that only people who did magic could see the pangolin. A TH said that pangolins were highly saturated in fat and were flammable. It was also suggested that pangolins could survive on bread, sand, soya pieces, or grasshoppers.

"Interviewee 12, TA, Ndakwera: People do not know the offences. We have no knowledge here of the effects of a pangolin and there was no education about the consequences of hunting and using the animals."

"Q: What does the animal eat?"

Interviewee 36, layperson, Mangochi: It feeds on sand."

Knowledge about source and sale channels varied. One interviewee suggested that anyone living close to the Malawi-Mozambique border would know where and how to get a pangolin. Two others said that they did not know what the market for pangolins was.

"Interviewee 41, convicted: Because he's residing here close to the borders, so he's much aware where the pangolins are from."

Q: So for someone living close to the border, any people would know where in Mozambique to go and find a pangolin?

A: Yes."

"Interviewee 14, TA, Ngabu: People say that the pangolin is worth a lot of money but there is no market, where is the market?"

Motivation

Beliefs about capability

10 of the interviewees perceived it would be easy to source pangolins from Mozambique. This perception was closely linked to the belief that pangolins were abundant in Mozambique, and that people in Mozambique kept pangolins.

"Interviewee 20, layperson, Machinga: In Mozambique, pangolins are found everywhere. They are abundant."

"Interviewee 42, convicted: ... People can leave it sometimes, keep it around the house when they want to use it as food just keep for that."

It was suggested that pangolins are easy to transport, and pangolin scales were relatively easy to source. It was also suggested that it would be very difficult to stop people from using the pangolin as it is important for medicine.

Finding alternative ingredients was suggested by three THs as a way to stop people using pangolins. However, adapting new ingredients would depend on the ancestral spirits who taught the individual TH, and THs could not change their practice but would stick to what they had been taught. One TH said there was no substitute for pangolins.

"Interviewee 2, TH, Kamoyo: We should find another alternative of using the derivatives from the pangolin. Or we should produce the same medicine but using other stuff instead of using the pangolin itself."

"Interviewee 6, TH, Dedza: Doctors can start to use new medicine, as ancestral spirits would give advice through dreams about what new medicine to use."

Beliefs about consequences

Only one TH amongst all interviewees viewed plants, animals and humans as all connected, and stated that the risk of pangolins going extinct was the reason for him stopping using pangolins despite it being an important animal for medicine. Four laypersons said that the pangolin is of no use or importance to ordinary people.

Goals and intentions

Four laypersons stated that people dealt in pangolins were doing it for profit and not for tradition.

Three laypersons said people will continue to use pangolins. A group of village elders expressed interest in learning how to use pangolins as medicine despite being aware that pangolins are protected and any encounter must be reported to the Wildlife Authority (DNPW).

Reinforcement

Rewards

12 interviewees recognised the pangolin as a valuable animal. However, this value was not associated with the ecological function of the species. Seven believed that a pangolin could be sold for a big sum. Two said that pangolins were only valuable to THs and people with

business motives. Six persons referred to government policies, saying that the heavy penalty on pangolin offence was an indication of the animal's value, that the strong protection assigned to pangolins showed that the government knew what the animal can be used for and did not want people to get involved. This perception has also led to people stop bringing pangolins they found to chiefs for release back into the wild.

"Interviewee 13, layperson, Ngabu: The pangolin is expensive. I believe this to be the case as when I compare the degree of offense, if you are caught with other animal species the penalty is not as heavy. So, the level of penalty is an indication of the pangolin's value."

"Interviewee 14, TA, Ngabu: During these 24, 25 plus years (as chief), I have had the opportunity of receiving pangolins from the villages and we sent them back to the parks as we normally do. Yes, but in the recent years things have just turned upside down, yes, hearing that pangolin is valuable."

"Interviewee 25, TH, Nsanama: It is expensive. That's why the government doesn't want people to use it."

Villagers may also be tempted into the business by money. Media and court reports citing evaluations of the animal reinforce people's perception that a pangolin is valuable on the market. In addition, low salaries or lack of income (environmental resources) make people desperate and become more vulnerable to temptations such as commission paid or promised by intermediaries.

"Interviewee 20, layperson, Machinga: There are news circulating that influence people to engage in the pangolin trade. It is said in the news that one animal is worth 6 million kwacha."

"Interviewee 37, convicted: I was thinking myself, I was advance in thinking like, I may have 2 million kwacha. I am getting my salary, three thousand, three hundred thousand kwacha. Then I was thinking of 2 million kwacha which I would get.."

Penalty

10 interviewees mentioned penalties as a deterrent for pangolin use and trade. It was stated that the problem with the trade of pangolin and even encountering the animal was that one would get arrested, and that the use of pangolins would continue if people believed they were safe. One convicted said that when people learn that the pangolin trade is just a trap by law enforcement, they would stop engaging in it. Three interviewees said that the heavy penalty severely impacts families of the arrested, and one convicted said that this would outweigh the temptation of money.

"Interviewee 15, TA, Kanyimbi: The disadvantage about pangolin is that if you report (the sighting/location of) it to the police, you can also get arrested."

It was also suggested that people are less concerned about trading pangolins in Mozambique as getting arrested with a pangolin there would not lead to serious consequences.

"Interviewee 41, convicted: ...in Mozambique people are still able to walk with it freely. If they catch you with a pangolin, it won't be anything. For them it's not an offence. Yeah. (translator: not a serious offence) Yeah."

Role and identity

One convicted suggested that the importance of taking care of his family would stop him from engaging in pangolin trade again. A TA considered it his responsibility to promote protection of the pangolin.

"Interviewee 19, TA, Mbenje: As the TA, I am in charge of the area and it is my responsibility to encourage people to protect the pangolin and report it to the police."

Opportunities- Environmental context and resources

Regulation and social norms for THs

It is accepted amongst locals and THs in Malawi that THs use animals including pangolins. Seven of the 12 interviewed THs and four of the 18 laypersons stated that the pangolin is an important animal for medicinal purposes. Traditional medicine is viewed as an important part of Malawian culture.

Some THs are based locally in a village while some are mobile and work in multiple locations, even moving between multiple countries in the region including Namibia, South Africa, Zambia, Central African Republic (CAR), Tanzania, Mozambique, and Botswana. They are supposed to register as members of the Association of Traditional Healers of Malawi and follow the guidance issued by the government and the Association. Three THs also suggested that THs need to register with the TAs, the Ministry of Health and the Ministry of Forest and Natural Resources to practice. One TH suggested that fake THs was a problem.

The Association is an independent body. It is supposed to follow government policies but is also said to protect THs if the THs get in trouble. The Association provides guidelines to regulate the practices of THs, including what animals THs should or should not use. The guideline specifies that the use of pangolins is prohibited since three years back. TAs are part of the local government. They also provide guidelines based on government policies to THs working in their area. They would send staff to different places to assess the performance of the THs, and those who do not follow the regulations may receive penalties.

THs may lobby against government restrictions. One senior TH said they would reach out to the TA to lobby the Department of Forestry. THs can hold parallel positions as TAs or local chiefs, further increasing the power of this sector. Two THs expressed frustration that THs, especially those working in villages, are not receiving government investment and support. Though THs are aware that using sourcing and using pangolin is illegal, some continue to do so.

"Interviewee 6, TH, Dedza: If the government says a plant or animal is rare and THs must stop using it, I would reach out to the TA to try to lobby the Forestry Department to try find a way to continue to use it sustainably. I'd do so even though there are alternative ingredients."

Availability affects use

19 interviewees said pangolins are found in Malawi but they are scarce. It can take a long time to source pangolin parts. In general, traditional medicine ingredients are becoming harder to find and more expensive. People living in areas close to forest and mountains where pangolins are found are more likely to use pangolins.

"Interviewee 1 and 2, THs, Kamoyo: It depends if the traditional healer is located in the area where there is forest, so it's easy to access this one (pangolins). But in areas where there's no forest, it is difficult for such kind of traditional healers to get or to access the pangolin, the scale or the real animal itself."

Regulation and law enforcement

Government ban was stated by a TH as a reason for people not using pangolins. Law enforcement in Malawi had led to people going to other places such as Mozambique to source and trade pangolins. Mozambique is vulnerable to be exploited for pangolin trafficking because the regulations and enforcement were viewed as less strict there (see under Penalties), availability of pangolin was described as much higher than in Malawi, and that the Malawi-Mozambique border was described as porous, allowing people to bypass border controls easily.

"Interviewee 25, TH and village chief, Nsanama: When we want it we seek from other places because of the law enforcement by the government. People need to do it carefully... It happens that people use the route from Mozambique to bring the animal to Malawi as this place is close to Mozambique."

Climate change

While not cited by interviewees as a factor directly influencing their use and trade of pangolins, climate and environmental change was mentioned as a concern to locals and a contributing factor to pangolin sightings. It was suggested that drought, bad weather and deforestation would cause a decline in pangolin populations but also displace pangolins from their original habitat and increase the risk of them coming into contact with human. Climate change was mentioned as a major disruption of villagers' livelihoods.

"Interviewee 15, TA, Kanyimbi: The main problems my village encounter is drought as it kills plants, animals and humans. We also have floods that wash away our crops. Due to climate change we have droughts every five years and flood every five years. This makes our livelihood difficult."

Modus Operandi of pangolin trade

Information from interviews

Five interviewees suggested that the pangolin trade in Malawi is an organised trade. The trade is not done openly because of law enforcement. Different individuals are involved, and only people connected to buyers would be trading. One suggested that pangolin traders would use other businesses as cover.

"Interviewee 24, layperson, Nsanama: Pangolins are hunted then taken to the middleman and then to the exporters." (the interviewee believed that pangolins were exported to Nigeria.)

"Interviewee 32, village contact person, Chiponde: It is an organized way of trade. It is done by different people... It is only people connected to buyers who are trading. These traders would use other businesses as cover."

Source and transit points

17 interviewees stated that live pangolins are sourced from Mozambique. There are both Malawians going to Mozambique to obtain pangolins, and Mozambicans who bring pangolins from Mozambique to Malawi looking for buyers. Four interviewees suggested that suppliers from Mozambique would have links to local Malawian villages such as family connections, allowing them to stay in Malawi and get help with selling the animal on. Source locations mentioned include areas bordering Malawi, Macanga, Mangodza and Ngomo. No interviewee had heard of sourcing from Zambia or other neighbouring countries.

Seven interviewees mentioned transit points for pangolin trafficking between Mozambique and Malawi, including Chiponde (to Lilongwe), Dedza (to Lilongwe), Lake Chirwa (to Machinga), Makanjila (to Salima), Mchinji, Mitundu (to Lilongwe), Namiramba, Phalombe, and Waliranji (from Ngomo).

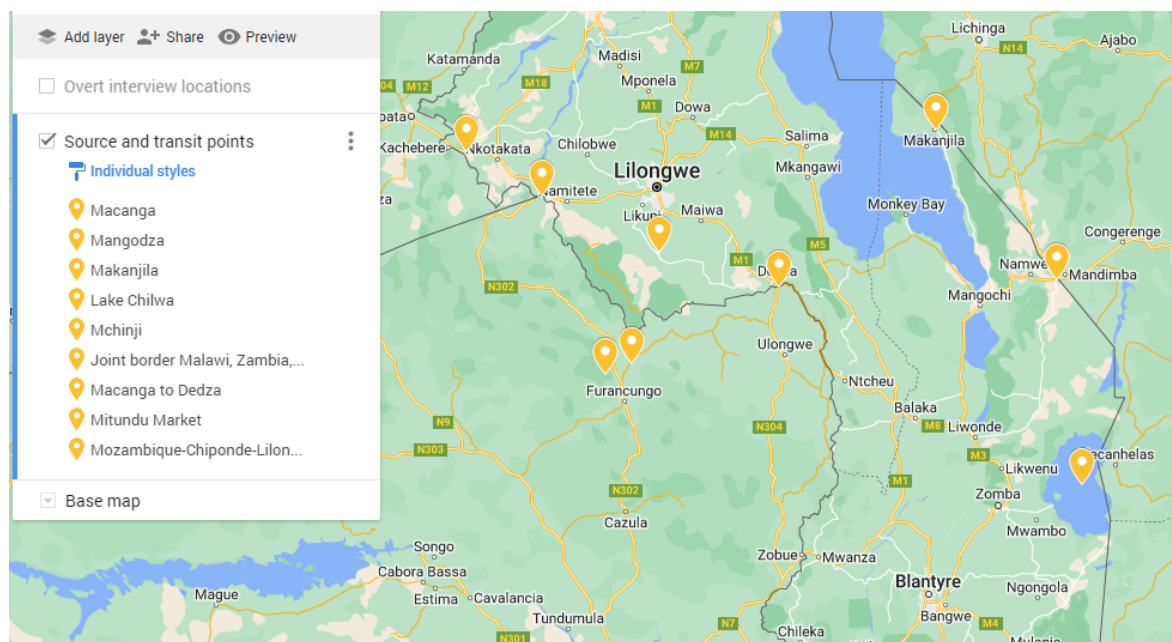


Figure 1 Source and transit points mentioned by interviewees

Transport and concealment

One interviewee said that pangolins are transported over the border during daytime, as the animals are inactive and less likely to attract attention then. One person suggested that people would bribe border control officials to get a pangolin into Malawi, while four persons suggested that bypass/dirt roads are used to avoid checks. Transportation methods include crossing the border on foot, moving the animal by public transport, bicycle, motorbike or by car. Sometimes local villagers are contracted as transporters between the buyer and the suppliers. One such transporter was interviewed in prison and said that he was just following instructions and the pangolin exchanged hands at the border.

“Q: And how did he get past the customs or the border control?”

Interviewee 37, convicted: Ah, most of the time they bribe them. They bribe. They bribe or they slink. They don't use the normal, the normal way. (translator: they bypass?) Yeah, they bypass.”

Concealment methods described were rudimentary. Seven interviewees said the pangolin would be put in a sack or a backpack, and three suggested that pangolins are transported in cartons. One interviewee said that one could easily transport a pangolin across the whole

country and arrest and seizure would only happen if information had been leaked to law enforcement.

“Interviewee 24, layperson, Nsanama: I heard some people explained that pangolins are put in the sack and then in cartons and transported by road public transportation.”

“Q: And do you know how he brought the pangolin over from Mozambique to Dedza? Interviewee 39, convicted: It was taken in a bag, a laptop bag.”

Buyers

12 interviewees stated that THs in Malawi use pangolins. Three laypersons suggested explicitly that pangolins can be sold to THs for money and THs was the only buyer group they knew of.

“Interviewee 29-31, laypersons, Ntaja: I have never heard of any other buyer than traditional doctors.”

“Interviewee 25, TH, Nsanama: We prefer to use the live animal so that we can get the body parts ourselves.”

Four THs said they did not need to get a live pangolin but can just source the part they needed, but two of them and another TH said for certain body parts they preferred to get a live animal so they could get the body parts themselves.

Eight interviewees had either not heard of foreigners buying pangolins or stated that it was uncommon for foreigners to buy pangolins. Two laypersons spontaneously mentioned Indians as buyers. It was suggested that the purpose of Indians buying pangolins was to sell the animal on for profit.

“Interviewee 13, layperson, Ngabu: There are some people from Asia who demand it and they would come to this town to buy live pangolins. I do not know the purpose. It’s mainly Indians.”

One convicted person said he encountered a Nigerian who came to view the pangolin he had, and one layperson had heard pangolins were used by people in Nigeria, but neither had concrete information that Nigerians were sourcing pangolins in Malawi.

One interviewee at Maula prison mentioned that Chinese people eat pangolins. However, no interviewee mentioned unprompted the Chinese as buyers. Even when prompted, only three interviewees suggested they had heard of Chinese possibly buying pangolins, and that such Chinese were mostly from Lilongwe. One TH mentioned that Chinese living in South Africa were interested in learning about traditional African medicine.

“Q: How about other nationalities such as Chinese?”

Interviewee 36, layperson, Mangochi: Chinese also asked for this stuff. They are not many Chinese here. Maybe some would own shops. They would also ask for a live animal. It is if it is dead, no business!”

“Interviewee 37, convicted: But one more of my friends was also telling me that the Chinese sometimes they can buy. But I’ve never met any Chinese who’s buying this thing. Never met one.”

Intermediates/entrapment

Intermediates were described by convicted interviewees as a key group in the trade chain. Intermediates move from village to village selling their service, linking up buyers and sellers. They are said to be Malawians and they work with the police by providing information about the locations of pangolin transactions that can lead to arrests. Two convicted described that such intermediates are the ones enticing people into trading pangolins, and one even claimed that they fund such trade with money from the police.

"Interviewee 41, convicted: ok, let me make it clear. This third person we are talking about, who was supposed to be the third accused, this one was the one who breached the whole issue between my casemate and the police. Because this one came to my casemate telling him that they were in need of a pangolin, that he's got someone who is in need of it and is offering a huge amount of money. Yeah.

Q: But in fact it was the police.

A: That one was not a police officer. That one was just an informant.

Q: The rider was an informant.

A: Yeah, that was used by the police. So he was given a transaction that was used for the whole movement from Mozambique to here. But during the arrest time, the informant was left."

"Interviewee 45, convicted: That man has been coming to my shop. At first, I said no, I cannot be engaged in this pangolin business, because my business is groceries. But he even made a call with loudspeaker talking with his boss, and he through the same phone communicating directly with the boss. The boss has been saying, OK, if you get (a pangolin)... you can get 6 million MWK within just 5 minutes. If you get a pangolin I will give you money. Yeah, that's what happened."

Depending on what they were asked to do, local Malawians asked to find a buyer may be offered a set amount as much as two million kwacha or a percentage of the final selling price of the pangolin, 100,000 kwacha for sourcing a pangolin, or 20,000 kwacha for transporting a bag from the Mozambique border to the nearby main road.

"Interviewee 37, convicted: Someone came. The one who owned the pangolin, eh, came to me and told me that they've got a pangolin. So I heard that someone wanted the pangolin in South Africa..."

Q: ok. So how much would you get?

A: I've been given maybe 2 million kwacha."

"Interviewee 42, convicted: That that gentleman, who I can say the intermediate, who came, said that if you get a pangolin, (I) would give you 100,000 Malawian kwacha."

All ten interviewees at Maula prison stated that they were arrested during their first time of involvement in the pangolin trade. Many of the convicted interviewees stated they had limited knowledge and participation in wildlife trafficking..

"Interviewee 37, convicted: From my research, when I (was) put here, most of the people was dealing with pangolin, they have never do any business concerning the whole wildlife like

the ivory. Most of them, they were dealing and it was their first time to do the pangolin business."

"Interviewee 46, convicted: As a driver I was contacted by my fellow drivers. So my fellow driver was in a taxi And when I got here I saw the police that intercepted and arrested us. They said you have been found in possession but I knew nothing."

Conversation with the translator after the interviews confirmed that the DNPW was aware of the problem of informants enticing people into the trade. Based on WiCIS records, this aspect was not taken into account in sentencing.

Price

13 interviewees provided comments or information about the price of pangolins. A pangolin was said to be expensive, though buying scales could be cheaper. A TH said there was no set price for a pangolin but the price would depend on the need of the patient and at the patient offered.

"Interviewee 25, TH, Nsanama: There is no specific price for the pangolin. It depends on who is offering and for how much at the time and the need of the patient. So some offer 5 million, some 40 million, some 50 million. It depends on the needs."

A live/whole pangolin was said to be the most expensive, whereas pangolin parts would be cheaper. Pangolin heart and blood are also expensive as these parts need to be obtained fresh from a live animal. Prices cited varied widely. One person said he obtained a pangolin for free in Mozambique after telling the seller he was sourcing the animal for medicinal use. Other than that, the lowest was 200,000 kwacha for one animal, said by a layperson in Machinga, and the highest was a suggested price range of five to seven million kwacha that foreign buyers were willing to pay, cited by a layperson in Ntaja. It was also noted that the price cited as to entice local Malawians to take part in the trade in cases of arrests was significantly higher than the market price described by laypersons and THs, ranging from six to 20 million kwacha.

Table 1 Pangolin prices in Malawian Kwacha quoted by interviewees

Pangolin	Price quoted to prompt participation in trade Yes/No	Price (kwacha)
Live	Yes	9-18 million
Heart	No	1-1.5 million
Blood	No	1-1.5 million
Scale	No	500-1000
Whole	No	200,000
Whole	No	5-7 million
Whole	No	Ca 1 million
Any part used by a TH	No	50,000 charged to patient
Live	Yes	20 million
Whole	No	10,000-20,000, average price in Mozambique
Live	No	Obtained for free in Mozambique
Live	Yes	6 million

Live	No	1 million (seller from Mozambique)
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Information from field scoping

The local Chinese community had a high level of awareness of the illegality of pangolins and other protected wildlife. They are wary of getting reported by locals to law enforcement authorities. Information suggested that it was possible to buy pangolins for food consumption in the Mangochi region, but that must be done discretely. Consumption of pangolins and their scales may still occur on a very limited scale primarily in private rather than public settings.

Corruption was considered widespread and common in the past, but the influence of Western organisations and media has changed people's willingness to engage in corruption and bribery. The government's reward scheme for reporting corruption has encouraged locals to monitor and report bribing attempts. Due to increased monitoring and reporting, criminals are less likely to evade criminal justice through bribing. The general perception of members of the Chinese community is that they get targeted by law enforcement, especially in relation to wildlife crime, due to high-profile cases involving Chinese nationals, and the influence exerted by Western organisations/government agencies.

Limitations of the interviews

An important limitation of the interview phase was obtaining informed consent. Initial interviews quickly showed that firstly, the low literacy level of the interviewees made it difficult for them to grasp the purpose of the study and the implications of their participation despite the presence of a translator, and secondly the sensitivity of pangolin use and trade as a topic led to almost all interviewees denying any knowledge about the issue. Hence, from day two of the interviews (informant number six to 36, excluding interviews at Maula prison), EIA adopted a cover story that the interviewer was conducting an academic study on the traditional uses of wildlife especially pangolins for medicine in Malawi, omitting the focus on the pangolin trade in the information given during recruitment. This means interviewees did not receive full information about the study when giving their consent, though it was made clear to them no personal information would be collected that made them identifiable, and participation would not bring any legal risks. In addition, the 10 interviewees at Maula Prison were chosen by prison officials. Though EIA gave brief introduction that the study aimed at understanding about the pangolin trade and obtained their oral permission to record the conversation, the degree of voluntary participation should be considered different from individuals recruited at other locations.

Due to the sensitivity of the topic, there was a notable reporting bias especially from THs. For example, at the Mitundu market, all interviewed THs claimed that they had never seen a pangolin or any pangolin parts but DNPW officers assisting the field work stated that considering the frequent seizures of pangolins/pangolin parts at the location, anyone claiming they had not seen a pangolin were not being honest.

Given the initial unwillingness to provide information encountered, the researcher decided to not record the interviews with laypersons and some THs but only take written notes to reduce the tension and suspicion from the interviewees. The researcher was still able to record all key information as the need for translation provided more time for writing during

the conversations. The translator also took notes after each meeting and the researcher was able to compare notes with the translator after the interviews.

Another major limitation was language. Only three interviews were conducted without assistance from the translator. The information exchange between the researcher and the interviewees was heavily dependent on the performance of the translator. During multiple interviews extra explanations and prompts were given by the translator to the interviewee, making the questions less open. On a number of occasions, a yes/no answer was relayed by the translator despite a longer answer was given by the interviewee, and it remained challenging to obtain a verbatim translation throughout the interviews. Nuances and details may have been lost through translation.

Gender roles in Malawi had an impact on the recruitment process. Women were perceived to be home-based and know less about business, so when helping the researcher approach laypersons the translator and driver were less likely to approach women even when the researcher explicitly requested to try maintain gender balance amongst interviewees. As women have more household responsibilities, most people encountered with time to spare on the streets were men, which also impacted recruitment. Two persons approached declined to take part in the study, both were female laypersons. The reason they gave was that they did not feel they knew enough about the topic.

The power dynamics across the interviewee groups are different. The power difference between the researcher, male laypersons and female THs is perceived by the researcher as small. TAs and male THs especially those who have many years of experience are perceived to have higher power hierarchy than the researcher and translator, as appointments need to be made and the team was expected to show great respect during meetings. Female laypersons were often timid in contact. There was significant power imbalance between the interviewed prisoners and the research team as the prisoners were taken by wardens to the interview room that was the office of a warden, and three prison officers were present during all conversations. This likely had a negative impact on the level of information each prisoner was willing to provide.

Discussion

Information from the interviews and field scoping suggests that the live pangolin trade in Malawi supplies to local consumption including as exotic meat consumed by some Chinese and for medicinal uses by Malawians. No intelligence from this study suggests that the live pangolin trade is a large-scale systemic trade to supply scales for export. Hence, interventions to reduce the live pangolin trade should focus on domestic audiences.

Using the Behaviour Change Wheel, potential intervention functions to address the factors influencing pangolin use and trade were identified as education, persuasion, modelling, enablement, incentivisation, coercion, training, environmental restructuring, and restriction. Intervention functions are categories of behaviour change techniques; their definitions are listed in the table below:

Table 2. Definition of intervention functions, adapted from Michie, Atkins and West, 2014⁷⁸

Education	Increase knowledge or understanding
Persuasion	Use communication such as media outputs and feedback to induce emotions or stimulate action

Modelling	Provide an example for people to aspire to or imitate, e.g., by creating role models
Enablement	Increase means or decrease barriers beyond education, training and environmental restructuring to encourage action, e.g., by providing social support
Incentivisation	Create an expectation of reward
Coercion	Create an expectation of punishment or cost
Training	Impart skills of taking desired actions e.g., detection techniques
Environmental Restructuring	Change the physical or social context, e.g., tighten border control, reduce corruption
Restriction	Use regulations or legislation to change the opportunities for certain behaviours

The intervention functions are then evaluated for their affordability, practicability, effectiveness and cost-effectiveness, acceptability, side-effects/safety, and equity (the APEASE criteria). The score setting should be done by local stakeholders such as DNPW, local NGOs, policy makers, TAs etc. The functions receiving the highest scores should then be selected for use in interventions to address the trade. EIA's assessment are as follows (also see Table 3. Scores are marked as 1 to 5 from low to high).

Education is likely to have a high APEASE score as there are already community outreach programmes by both the DNPW and NGOs in Malawi. Education efforts can:

- address gaps in knowledge such as the value of biodiversity and ecological health. Efforts can focus on the role pangolins play in maintaining a healthy ecosystem that helps build resilience against climate change, and how that would benefit the livelihoods of local people;
- introducing a sense of duty to protect pangolins as part of a person's role and identity;
- sharing knowledge about sustainable alternative medicinal ingredients to improve people's beliefs about their capability to shift away from using pangolins;
- construct beliefs about positive consequences of saving pangolins and negative consequences of pangolins going extinct;
- set new goals and intention of protecting pangolins for better ecological health rather than exploiting them for short-term profit.

Persuasion and Modelling may also have high APEASE scores as they can be integrated into education efforts as advertising designs and messages. They can be used to address role ad identity, beliefs about capability, beliefs about consequences, goals and intention as suggested above. Examples of persuasion techniques include recruiting credible source such as TAs, using imagery of social and environmental consequences to evoke emotions and motivate people to stop exploiting pangolins. Modelling is also effective in changing social influences, for example by recruiting senior TAs and THs as messengers and role models in abiding government policies and rejecting the use of pangolins, and promoting the idea that every person can be a role model.

Output messages need to be tailored with culture sensitivity. It was noted that some members of the Chinese community in Malawi felt targeted by law enforcement and Western anti-IWT campaigns. Future outreach and campaign efforts should take care not to alienate key stakeholders.

Enablement can address beliefs about capability goals and intention, social influences and environmental context and resources. Examples of Enablement include social support for THs stopping their use of pangolins, more structured monitoring of THs' practices, social support to decrease poverty and corruption. Another enabling action would be setting up a publicly accessible national prosecution outcome database that includes not only wildlife crime cases but also corruption and money laundering cases. This way, laypersons and officials alike can monitor court outcomes. Mass media will also be better equipped to timely expose such information to stakeholders. However, this may require significant mobilisation of stakeholder support and government resources.

Incentivisation include providing positive feedback to desired behaviour, such as successful law enforcement and prosecution, THs stopping their use of pangolins. It can also include social reward such as honorary titles. However, any reward, especially material reward can impact equity negatively. The interviews suggested that current motivations of the use versus protection of pangolins are heavily biased to external factors that are rewards and punishments. Research showed that learning and adopting (internalising) new values and attitudes is a major determinant of sustained behavioural change.⁷⁹ Incentivisation has the potential side effects of further strengthening external reinforcements and reducing the public's will to adopt new values that would encourage them to stay away from using and trading pangolins in the long run.

Coercion can target the goals, intention, and reinforcement of the general public, law enforcement officers, THs and traders to dissuade them from corruption, illegal use and trade of pangolins. Providing feedback and ways for people to monitor the outcomes of undesirable actions can increase beliefs and anticipation of negative consequences. An example of such channels of monitoring can be a publicly accessible national prosecution outcome database as described under Enablement.

Training can modify environmental context, such as by improving the skills of law enforcement officers to increase detection and investigation of pangolin trafficking, increase anti-corruption efforts, and training prosecutors and judges to improve appropriate sentencing. It is important to provide feedback to participants during training on their performance, and create routines to allow self-monitoring of their actions.

Environmental restructuring can change reinforcement, social influences, environmental context and resources. By removing access to rewards such as payments to informants, law enforcement can decrease the risk of laypersons being tempted into the trade. The government can work more closely with the Association of Traditional Healers to leverage peer-to-peer influences and stop THs from using pangolins and encourage alternatives. By strengthening border controls and reduce corruption, market availability of pangolins can be reduced. In the long term, government efforts in poverty reduction will increase public resilience against illegal wildlife trade.

Restriction would focus on applying guidelines, regulations and legislation to protect pangolin and reduce the exploitation of the species. Malawi's NPWA stipulates strong protection of pangolins. However, interviews showed that TAs and THs have varying attitudes towards how the regulations should be followed. There seems to be room to

improve guidelines and regulations that apply to TAs and the Association of Traditional Healers to further standardise and regulate their practises.

Table 3 EIA's suggestion on the APPEASE scoring of intervention functions to tackle the live pangolin trade in Malawi, scores 1 to 5 from low to high.

Intervention function	Affordability	Practicability	Effectiveness and cost-effectiveness	Acceptability	Safety	Equity
Education	5	5	5	5	5	5
Persuasion	5	5	4	5	5	5
Modelling	5	5	4	5	5	5
Enablement	1	3	4	5	5	4
Incentivisation	2	3	2	5	1	1
Coercion	3	4	5	3	3	5
Training	5	5	3	5	4	5
Environmental restructuring	3	4	3	3	3	5
Restriction	5	3	5	3	3	5

Conclusion and Recommendations

Pangolins are protected by law in Malawi, Zambia, Mozambique, and Tanzania to varying degrees with suitable offences and penalties, although these measures can be strengthened as identified in the review. In Zanzibar, there is a clear need to strengthen, or at least articulate more substantively, the minimum custodial penalties for CITES-related offences involving organized crime or trafficking in endangered species under the 2019 CITES Regulations to meet the definition of a serious crime. The empowerment of authorities to enforce their mandate is critical, as are measures to promote inter-agency cooperation.

The prosecution of wildlife criminals under wildlife-specific legislation should be complemented with charges under national criminal codes, anti-corruption, anti-money laundering and organised crime acts. Clear protocols are needed for the appropriate rehabilitation and release of seized live pangolins. The captive breeding or farming of seized live pangolins as a strategy to counter trafficking is not feasible, and both practices are strongly discouraged. The lack of centralised and publicly accessible databases undermines any monitoring and evaluation of trade patterns, law enforcement efforts and criminal justice.

In Malawi, there is good public awareness of the illegality of pangolins and other protected wildlife, but limited understanding of why pangolins and other species should be protected. The current level of pangolin trafficking in Malawi is low due to recent high-profile convictions of IWT criminals. Regionally, the status of the live pangolin trade does require further research and assessment.

Recognising and notwithstanding the different advances made by the four countries, EIA proposes the following recommendations to strengthen efforts to address the live pangolin trade in the region.

Policy makers/Governments should:

- Support similar studies to further investigate and assess live pangolin trade in Mozambique and Tanzania to develop a clearer regional understanding and to identify and implement appropriate interventions at a country and regional level.
- Implement the country-specific recommendations identified in the legal review.
- Amend laws to define and declare wildlife crime as a serious and organised crime, including where appropriate, the enactment of Organised Crime-specific Legislation.
- Ensure non-native CITES-listed species are protected under relevant laws and regulations, and keep lists or schedules of protected species and CITES listed-species up to date.
- Instate mandates for expert witnesses, e.g. appoint experienced forensic centres and/or specialised wildlife officer units for examination of seized illegal wildlife items to standardise and strengthen investigations.
- Publish a standard protocol for the rescue, rehabilitation and release of live pangolins from illegal trade, drawing on existing guidelines such as IUCN's Guidance for first responders on the short-term care of confiscated pangolins.⁸⁰ This should include mechanisms for recognising official rehabilitation centres to avoid instances of bogus rehabilitation centres being used to traffic pangolins.
- Avoid the captive breeding or farming of seized live pangolins as a strategy to counter pangolin trafficking.
- Allocate resources to the judiciary system to avoid case backlogs and losing evidence with time.
- Impose punishment that is proportionate to the crime committed, including by assigning different levels of punishments in accordance with the person's role in the crime such as organisers, instigators and accessories. Developing and using Sentencing Guidelines to aid discretion in determining sentences is recommended for **Zambia, Zanzibar** and **Mozambique**. Conversely, Victim Impact Statements can aid efforts to highlight the severity of illegal pangolin trafficking and ensure that appropriate minimum sentences are regularly imposed.
- Allocate resources to and lead on demand reduction efforts in collaboration with multiple stakeholders including but not limited to law enforcement authorities, the judiciary, national and local associations of traditional healers, traditional authorities, civil society organisations.
- Lead on demand reduction interventions that should include multiple elements such as education, persuasion, modelling, environmental restructuring, restriction etc, using influential messengers. Education efforts should emphasise the links between species conservation, climate change resilience and livelihoods, as well as promote species conservation as a citizen responsibility.
- Implement the mandatory actions outlined in the SADC-LEAP Strategy, including developing national strategies to combat IWT and develop a national wildlife crime intelligence database linked to the Wildlife Crime Unit.

- Strongly consider the adoption and implementation of the conservation action plan for pangolins as prepared by the IUCN Pangolin Specialist Group.
- As ESAAMLG members, develop and implement National Strategies on anti-money laundering and the combatting of financing of terrorism, including IWT, if this has not already been done.

Law enforcement authorities and the judiciary should:

- Refrain from incentivising informants to recruit laypersons into IWT and from entrapment.
- Increase transparency and public access to information on seizures and prosecution outcomes by establishing a centralised public database.
- Standardise evidence gathering procedures such as forensic examination, and carry out financial investigations to identify the role played by each defendant in the crime and unroot trafficking networks. This will improve criminal justice and sentencing that is proportionate to the crime.
- Collaborate with other stakeholders in demand reduction efforts, such as community outreach efforts to educate the public, tackling corruption and allocating resources to improve border control.
- Collaborate with associations of traditional healers and Tas to standardise and monitor TH practices, promote sustainable ingredients, and enforce utilisation bans.
- Continue to strengthen multi-agency collaboration (including customs, police, wildlife departments, financial investigation units, anti-corruption bureaus, and the national prosecution authorities) at the national and regional levels.
- Prosecutors and judiciaries should be made aware of all applicable legislation and legal instruments available to prosecute offences relating to illegal wildlife trade, and where appropriate, receive training.
- Implement Sentencing Guidelines and Rapid Response Guides. Such guides should regularly be reviewed and updated.
- Use the TWIX platforms more effectively, including improving access and use by a wide range of relevant law enforcement agencies, such as customs.
- Proactively make use of regional platforms such as ESAAMLG to address IWT as financial crimes, and support the implementation of the partnership between ESAAMLG and UfW.
- Proactively share intelligence linked to pangolin trade with counterparts in neighbouring countries.

Civil society organisations should:

- Continue to monitor the effectiveness and potential weaknesses of laws and regulations, law enforcement efforts and criminal justice, and provide feedback to policy makers, law enforcement authorities and the judiciary.
- Support court monitoring efforts.
- Promote and support anti-corruption and anti-money laundering efforts.
- Collaborate with other stakeholders in demand reduction efforts, such as community outreach efforts to educate the public, promote sustainable practices, leverage change through influential role models in mass media campaigns.

- Conduct research into the attitude and motivations of particular communities such as the Asian diaspora, and tailor outreach and demand reduction messages accordingly to bring these groups onboard counter wildlife trade efforts and prevent alienation.
- Continue to leverage foreign pressure and media attention to counter IWT activities, as traders are adaptive and ready to resume activities when law enforcement and media attention decreases.

Other stakeholders

- Domestic and international donors and development agencies should continue to identify and allocate resources to tackle IWT in all regions of Africa whilst working with local governments and CSOs to build long-term capacity for sustained law enforcement and criminal justice impacts.
- Mass media should continue to monitor and highlight the negative impacts of IWT and progress made in securing criminal justice responses beyond seizures.
- Financial institutions should work with government and CSOs to strengthen their Know Your Customer (KYC) databases and support anti-money laundering investigations.

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