



International Institute  
for Environment  
and Development

# Targeted Scenario Analysis (TSA) on illegal wildlife trade in Thailand

## *Policy Brief*

### Key Messages

- Wildlife crime globally is at crisis level - driving biodiversity loss and imposing far-reaching impacts on livelihoods, economies and regional security.
- Thailand is a source, transit and destination country for many different types of illegally-traded wildlife and wildlife products. In order to reduce the trafficking of wildlife in Thailand increased investment in cost-effective enforcement across the Illegal wildlife trade value chain is needed, backed by high level political commitment.
- An additional USD 3 million a year is estimated to be required to more effectively combat wildlife crime in Thailand. This is far less than the potential economic gains of shifting from current practices to those under the defined alternative management scenario EPITES of around USD100 million a year.
- The economic argument for EPITES is based on the avoided costs of CITES sanctions and potential wildlife tourism benefits, and is even more compelling given the many significant benefits not included. For example, employment benefits, the positive impacts on socio-economic development and equity, the increased protection afforded to Africa's biodiversity and lucrative wildlife tourism sector and the global benefits of reducing the risk of global zoonotic disease.
- Increasing funding to combat wildlife related crime and to develop wildlife tourism is central to Thailand's economic reconstruction after COVID-19.

## Background

Wildlife crime is now considered to be at crisis level - driving biodiversity loss and imposing far-reaching impacts on livelihoods, economies and regional security. It is globally the fourth most lucrative type of transnational crime generating illegal revenue estimated at USD 5 billion to USD 23 billion per annum in 2017.

Thailand is a source, transit and destination country for many different types of illegally-traded wildlife and wildlife products. Illegal international trades are mostly of exotic species such as rhino horn, elephant ivory and pangolin.

The Government of Thailand is implementing the Global Environment Facility (GEF) project 'Combating Illegal Trade, focusing on Ivory, Rhino Horn, Tiger and Pangolin' (2018 – 2023), referred to henceforth as the IWT project. The IWT project's objective is to reduce the trafficking of wildlife through enhanced enforcement capacity and collaboration and targeted behavior change campaigns. As part of the IWT project this **Targeted Scenario Analysis (TSA)** has been undertaken to enhance understanding of the economic gains and losses of different wildlife management approaches.

The Targeted Scenario Analysis of the Illegal Wildlife trade in Thailand follows the 5 step TSA methodology set out in the TSA guidance of UNDP<sup>1</sup>:

- Step 1 – Preparation and definition of the client, client's objectives and scope and objective of the TSA
- Step 2 – Definition of the BAU baseline and EPITES interventions
- Step 3 – Selection of assessment criteria and Indicators
- Step 4 – Construction and analysis of the BAU and EPITES scenarios
- Step 5 – Presentation of policy recommendations

Of note, the TSA methodology has been adapted to align with the focus of this study – namely the benefits of eliminating illegal wildlife trafficking that threatens global biodiversity and the most cost-effective mechanisms (policies, regulations, monitoring approaches) to achieve this. Its starting point is *not* therefore how to better manage ecosystems and their services (although this is important to support wildlife) to improve productivity of a specific sector as in a 'classic' TSA study. Instead this TSA is focused on understanding the revenue flows associated with the current illegal wildlife trade, how the illegal trade can be best curtailed and the economic, social and environmental benefits of doing this. In the classic TSA methodology the Business as Usual (BAU) scenario is compared to an alternative Sustainable Ecosystem Management (SEM) scenario. The alternative scenario in this study is framed as the **Effective Prevention of Illegal Trade in Endangered Species (EPITES)**. The IWT project forms part of the EPITES scenario.

The TSA client is the Department of National Parks, Wildlife and Plant Conservation (DNP) as the agency leading on eliminating the illegal trade in wildlife in Thailand. The TSA addresses the following policy/ management question: **What are the economic gains to Thailand and the global economy of increasing investment to enhance actions to eliminate illegal wildlife trafficking?**

The specific **objectives** of the IWT TSA are to:

- Improve decision makers' awareness of the social, economic and environmental economic losses deriving from the IWT to Thailand and globally, and the benefits associated with a reduction / elimination in wildlife trafficking; and,
- Justify additional financing for wildlife crime enforcement to reduce IWT in Thailand,

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<sup>1</sup> Alpizar, F and Bovarnick, A. 2013. Targeted Scenario Analysis: A new approach to capturing and presenting ecosystem services value for decision making. UNDP.

from Government budget allocations, private sector investments and other sources including international donor transfers.

### **The BAU and EPITES scenarios**

Both the BAU and EPITES scenarios present interventions along the IWT supply chain, recognising that such an integrated approach is necessary to successfully address the IWT. The BAU and EPITES therefore include current and proposed practices respectively relating to legislation, policies and plans, law enforcement, cooperation and coordination (including information management and exchange) and awareness raising and demand reduction. While there are many positive aspects to the BAU reflecting a transition to EPITES, broader and deeper changes are needed to effectively combat the IWT, as reflected in the EPITES scenario.

Under the **BAU scenario**, Thailand has a comprehensive policy and legal framework to address IWT supported by a network of fifteen agencies with defined roles and responsibilities for tackling the IWT. Nonetheless, several aspects of the current institutional arrangements hinder the effective prevention of the IWT and allow offenders of wildlife crimes to evade investigation, arrest and prosecution. These include the low application of provisions in existing laws on the use of special investigative techniques in wildlife crime cases and provisions targeted at Transnational Organized Crimes, underfunding of IWT enforcement agencies with only the DNP having a dedicated budget line for IWT enforcement activities, complex administrative procedures and the lack of specialized training on IWT as an organized crime among law enforcement agencies. Cooperation and coordination are generally insufficient on IWT enforcement. For example, the Thailand Wildlife Enforcement Network, established to coordinate activities between national IWT agencies - is not currently fulfilling this task, communities are not engaged in IWT enforcement and data are dispersed across agencies making it impossible to understand the big picture. In terms of efforts to raise awareness and reduce demand, campaigns have not focused enough on understanding social norms and the factors driving demand and consumer networks. In terms of capacity, many of the agencies involved in IWT require additional manpower, especially to better enforce activities on the ground. Training is also required on the use of investigative techniques.

Under **EPITES scenario** existing legal provisions, for example under the Customs Act amended in 2005 and the Act of Prevention and Suppression of the Participation in Transnational Organized Crime BE 2556 (2013), which provides the legal basis for the use of special investigative techniques are put into operation. There are investments in law enforcement to improve its effectiveness including increase coverage of SMART patrols, support to the National Resources and Environmental Crime Suppression Division (NED) and Border Patrol Police operations, strengthening of the DNP's Wildlife Forensic Science Unit (WIFOS) and establishment of a special unit within NED focused on suppressing the growing on-line trade in IWT. Cooperation and coordination are improved through the strengthening of Thai-Wen, enhanced collaboration and information sharing with regional and international organizations, the development and application of a harmonized central IWT database to address the current fragmentation of data across various agencies, and the introduction and upscaling of community engagement in transboundary enforcement networks. To enhance awareness and reduce demand for wildlife, plants and derived products EPITES sees more targeted, nuanced and sustained demand reduction campaigns led by the Government and activities to increase awareness among government, judiciary and consumers of the impacts of IWT and penalties.

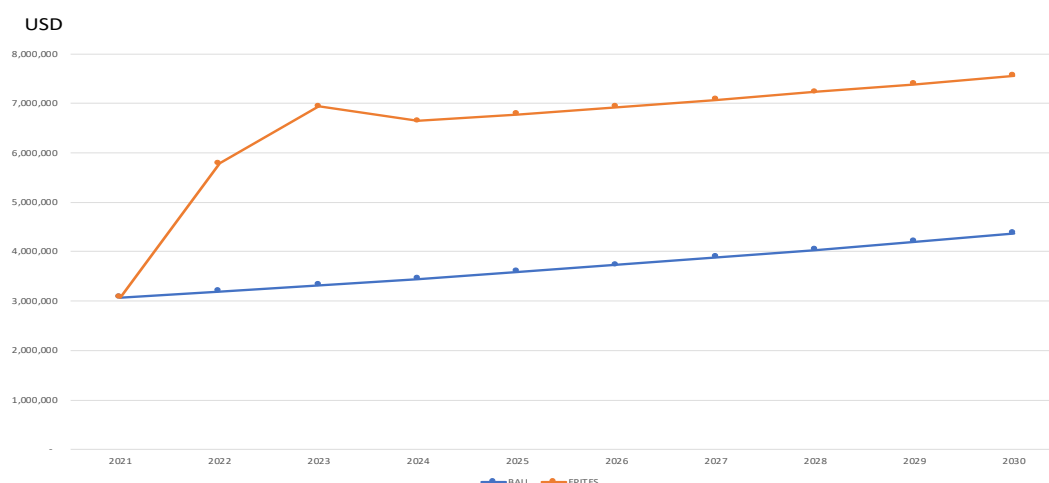
## Key Findings

The TSA study analyses the BAU and EPITES scenarios over a 10-year period against three core criteria: the costs of enforcement; the avoided costs of potential CITES sanctions and domestic tourism benefits.

**Cost of Enforcement.** The DNP and other stakeholders have highlighted the need to better understand current expenditures on controlling the illegal wildlife trade while an understanding of costs of implementing EPITES and the funding gap is critical to understand how EPITES could be sustained once the IWT project ends in 2023.

Figure A shows the projected costs under BAU (blue line) and EPITES (orange line). Under BAU the budget is assumed to increase by no more than 4% a year. Under EPITES the budget increases by roughly USD 3 million per year, nearly doubling current budget allocations from 2023 onwards, and resulting in an 81% increase in total budget allocation by 2030. The largest cost item under EPITES, accounting for around 38% of the *additional* budget required, relates to upgrading wildlife crime surveillance and enforcement at the border crossing points. This has the potential to reap broader benefits in terms of community level employment and engagement in wildlife conservation, reduced lawlessness in rural areas as well as reduced incidents of illegal trade in wildlife.

**Figure A: Cost of enforcement under BAU and EPITES**



**CITES sanctions avoided.** The domestic trade in elephant ivory is a risk for Thailand, who face sanctions by CITES if African ivory is found to be circulating in Thai domestic markets. The cost of sanctions avoided is based on the current export of legally traded wildlife and plants which could face sanctions. This potential cost is an argument for the Government to invest in enforcement against IWT, not only to avoid the financial cost of sanctions but also the reputational risk it presents, which would deter impact investors and potentially tourists. A benefit of investing in EPITES is therefore that it ensures that Thailand is able to continue to the export legally permitted wildlife and plants such as orchids and earn revenue of around USD 89.42 million a year (2,900 million Baht).

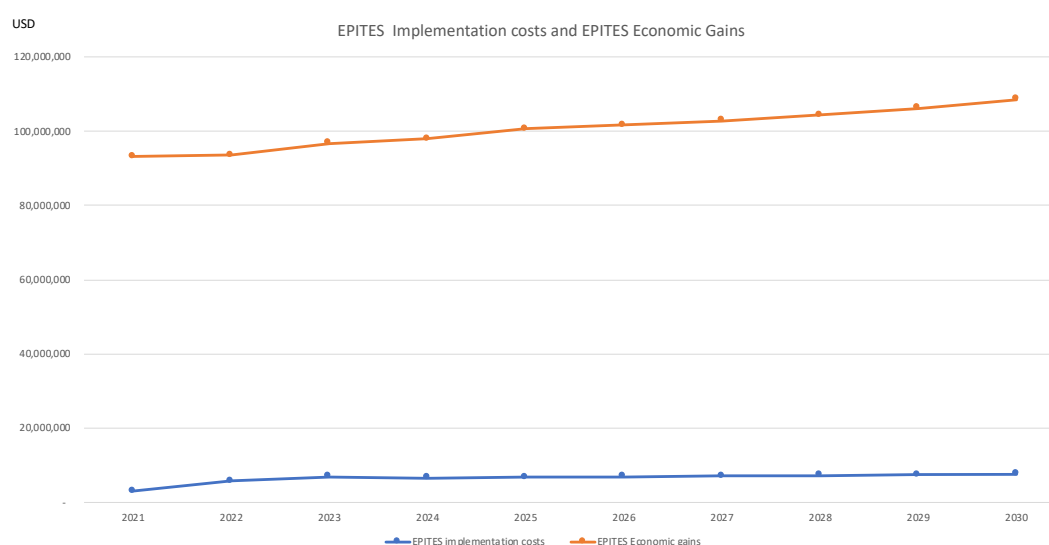
**Domestic wildlife tourism benefits.** While wildlife tourism is currently limited in Thailand it has growth potential and represents an avenue for generating income for wildlife conservation and supporting the development of remote areas and communities. For Wildlife Sanctuaries, based on projections in tourism numbers and entrance fees over a period of 10 years, the differences in revenue between the BAU and EPITES are estimated at USD 33.108 million

(1,073.7 million Baht). For National Parks, there is a noticeable difference between BAU and EPITES if entrance fees are increased by twice the existing rate, over a period of 10 years. Under this scenario the *additional* revenue to the 7 National Parks where wildlife viewing is already an attraction could be as high as USD 67 million (2,176.1 million Baht) over ten years, reaching an annual rate of USD 20,040,707 in 2030.

These estimates can be considered conservative in that they are only based on entrance fees and do not factor in other direct and indirect spending by tourists. However, it should also be noted that the estimated revenue flows are contingent upon investments in tourism infrastructure (e.g. from national and provincial Government and the private sector), the ability to clearly define access to specific areas where wildlife viewing is permitted and the specification of the maximum number of tourists that would be allowed at any given period of the year to ensure sustainability.

There are clear economic incentives for investment in EPITES. Figure B shows the cost of EPITES, which totals around USD 65.5 million over 10 years (blue line) relative to the benefits of EPITES (totalling around USD 1 billion over 10 years). This is based on two types of benefits - CITES sanctions and the potential revenue from wildlife ecotourism in Wildlife Sanctuaries and National Parks. To realize the potential revenue from wildlife eco-tourism (which rises to USD 19 million in 2030), there is a need for investment in eco-tourism facilities which have not been factored into the costs of EPITES. However, wildlife tourism has been tipped as having a role to play in Thailand's strategy to build back better after COVID-19 diversifying its tourism offering and generating investment and jobs in remote areas.

**Figure B: The cost of implementing EPITES relative to the economic benefits**



The economic argument for EPITES is even more compelling given that there are other significant benefits not factored into the calculations above. For the Thai economy these include: EPITES can mitigate the risks of future zoonotic pandemics by eliminating or reducing risks of wildlife to human transmission of zoonotic diseases; employment benefits related to wildlife tourism and the introduction of integrated enforcement practices; and, the positive impacts on socio-economic development and equity related to reduced crime and the distortions to financial flows associated with wildlife crime. Global benefits include a reduction

the risk of global zoonotic disease and the protection of Africa's biodiversity and lucrative wildlife tourism sector.

## Conclusions

The economic, social, health and environmental consequences of illegal wildlife trafficking to Thailand are significant. By stemming the IWT Thailand can reap multiple domestic benefits including avoiding potential trade sanctions and the opportunity to develop its wildlife tourism sector and thereby boost development of remote areas and promote inclusive green growth. At the global level, effective prevention of illegal wildlife trade protects key biodiversity and the lucrative wildlife tourism industry in Africa and builds global resilience to future outbreaks of zoonotic disease.

**In order to reduce the trafficking of wildlife in Thailand an increased investment is needed on a sustainable basis, backed by high level political commitment.** The estimated additional investment needed to improve the performance of the agencies involved in combatting IWT is around USD 3 million a year (USD30 million over ten years), this can be compared with the potential economic gains of shifting from current practices under a BAU to those under EPITES of around USD100 million a year. Over a 10-year period the net benefit of EPITES is estimated at around USD940 million. This is based on the sanction costs avoided and the potential wildlife tourism benefits EPITES offers (which would require investment in tourism infrastructure and marketing to be realized). It is important to note that the calculation does not include many other significant benefits that have not been monetized.

**Increasing funding to support combating wildlife related crime is central to the economic reconstruction after COVID-19.** The difference in the cost of the COVID-19 pandemic compared to the costs to prevent it from happening again clearly demonstrates the economic viability of investments such as EPITES and complementary investments to promote wildlife ecotourism.

**Simultaneous and integrated action is needed at each stage of the IWT value chain to be effective.** IWT needs to be tackled from all angles (from strong laws to public awareness and demand reduction) and levels (transnational, national to local). EPITES incorporates interventions across the IWT supply chain to facilitate this.

**Wildlife trafficking is a transboundary issue and regional and international collaboration is essential.** Effective enforcement of the illegal trade by one country will have a limited effect if traffickers are able to relocate their activities to other countries with legislative gaps and weaker enforcement in place. Strong enforcement practices, data monitoring and analysis, harmonized legislation and cross-border investigations and judicial cooperation globally are therefore needed. Controlling the trafficking of African elephants and rhino horn through Thailand would benefit wildlife tourism in Africa, the value of which is significant.

## Recommendations

**Implement EPITES.** Based on the evidence of the economic, environmental, social and health impacts of the BAU and the EPITES scenarios, a shift from BAU to EPITES is justified. Implementation of EPITES includes a range of actions to address illegal wildlife trade activities across the integrated IWT supply chain. It includes: (i) enhanced law enforcement - development of advance investigative techniques, support to DNP's Wildlife Forensic Science (WIFOS) laboratory and upscaling of on-the ground operations; (ii) enhanced cooperation, coordination, information management and exchange - strengthening Thai WEN, informational management and introducing integrated enforcement networks that include local communities; and, (iii) initiatives to increase awareness and reduce consumer demand.



**DNP to request additional budget for eliminating the IWT for the 2023 financial year.** In order to secure additional Government budget the DNP needs to develop a project focused on the IWT for the next budget review cycle for the 2023-2024 financial year. This project request needs to be developed by January 2022, to ensure the continuity of activities after the IWT project ends. The proposal would need to be approved by the Ministry of Natural Resources and Environment (MONRE) before being submitted to the Budget Bureau of the Ministry of Finance and then the Cabinet and Parliament for final approval. The project request should include output-based performance indicators.

**Develop tourism strategy for Wildlife Sanctuaries and Protected Areas.** There is the potential to generate new and additional revenue from the development of wildlife tourism in a manner compatible with Inclusive Green Growth objectives. However, this is contingent on: (i) an increase in entrance fees and other user charges; (ii) a study to determine the visitor sustainability threshold for the National Parks and the buffer zones of Wildlife Sanctuaries; and, (iii) investments in tourism infrastructure by the National and Provincial Government and private sector. The DNP should work with the Ministry of Tourism and Sports and other key Ministries to develop and implement a wildlife tourism strategy, backed up by Protected Area Business Plans.

**Review and reform of the existing budget allocation framework to combat IWT.** It is critical that there is a move away from incremental budgeting to Results Based budgeting. It is also recommended that the budget to implement the Draft Plan of Action 2015-2025 (POA) for ASEAN Cooperation on CITES and Wildlife Law Enforcement, which can be seen as the overall framework for Thailand's activities in combatting IWT, be submitted as a single coordinated package led by Thai WEN.

**Sustainable finance review to identify mechanisms to increase funding for law enforcement agencies from Government budget allocations, private sector investments and other sources including international donor transfers.** The strong link between addressing the IWT and a sustainable post COVID-19 recovery is an opportunity to lobby for the resources needed to implement EPITES. However, given the expected strain on government funding as a result of COVID-19, new funding mechanisms also need to be identified to close the funding gap. A review of potential innovation IWT specific financing mechanisms, building on existing work by the UNDP-TIGER Project for example, is needed to determine concrete funding opportunities.

**Explore the feasibility of developing an international fund to combat the IWT.** At the international level a global fund could be considered to support countries, whose efforts on controlling wildlife trafficking have clear global benefits. Given that Thailand is well positioned to lead on eliminating wildlife crimes in the region, it could lead discussions on the development of such a global or inter-regional fund. As a starting point, a Task Force could be created to explore interest in such a fund and inform the features of the fund including type of Fund (e.g. an endowment, sinking or revolving fund), how it might be capitalized (e.g. Government, private sector and / or donor contributions) and how it would be administered.