Value chains and illicit financial flows from the trade in ivory and rhino horn

Results from the World Wildlife Crime Report 2020
Background

• UNODC, in close collaboration with Member States, systematically collects information on patterns and flows of illicit trafficking in wildlife and releases World Wildlife Crime Reports biannually.

• Illicit wildlife trafficking is – as all other markets – mainly driven by profits, but knowledge on the functioning of markets (value chains) and illicit income is limited.

• Closing information gaps helps to understand the scale of the problem and to identify weaknesses in the modus operandi of traffickers.
Value chains and illicit financial flows

About the research

• Global supply chains of ivory and rhino horn, including illicit income generated and illicit financial flows

• Application of the framework developed for measuring SDG 16.4.1

• Results were published in the World Wildlife Crime Report 2020
A model supply chain

Fig. 1  Actors along the value chain of rhino horn and ivory (violet actors are thought to be in Africa, green ones in destination countries, yellow may be located in either region)

Fig. 8  Variation of price data for rhino horn, by trade level, multi-year average, 2014-2018

Fig. 9  Variation of ivory price data, by trade level, multi-year average, 2014-2018.
The size of the market

Table 1: Annual estimated ivory harvested from illegally killed elephants, 3-year average 2016-2018

<table>
<thead>
<tr>
<th>SUB-REGION</th>
<th>TONS OF IVORY HARVESTED PER YEAR</th>
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<tbody>
<tr>
<td>Central Africa</td>
<td>19.2 (12.7-32.2) tons</td>
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<tr>
<td>Eastern Africa</td>
<td>25.8 (18.1 - 40.4) tons</td>
</tr>
<tr>
<td>Southern Africa</td>
<td>57.1 (42.7-81.2) tons</td>
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<tr>
<td>West Africa*</td>
<td>2.9 tons</td>
</tr>
<tr>
<td>Total</td>
<td>105 (88 – 136) tons</td>
</tr>
</tbody>
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Source: UNODC estimates based on modelling by George Wittemyer

Fig. 3: Rhino horn entering the illegal market, annual average 2015-2017

Horn from poached animals: 5.8 tons
Recoveries in the field: 0.5 tons
Horn from other sources: 0.3 tons
Horn entering the illegal market: 5.6 tons

Note: Numbers are rounded, calculations were done with full precision.

Table 2: Annual illicit income generated by the illicit trade in ivory and rhino horn (US$ millions), annual average, 2016-2018

<table>
<thead>
<tr>
<th></th>
<th>IVORY</th>
<th>RHINO HORN</th>
</tr>
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<tbody>
<tr>
<td>Overall market size</td>
<td>US$ 400 (310 – 570) million</td>
<td>US$ 230 (170 – 280) million</td>
</tr>
<tr>
<td>Asia (end-consumer),</td>
<td></td>
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<td>gross income</td>
<td></td>
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<tr>
<td>Retail</td>
<td>US$ 260 – 490 million</td>
<td>US$ 120 – 160 million</td>
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<tr>
<td>International</td>
<td></td>
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<tr>
<td>trafficking</td>
<td>US$ 38 – 60 million</td>
<td>US$ 28 – 79 million</td>
</tr>
<tr>
<td>Runners and brokers</td>
<td>US$ 7 – 11 million</td>
<td>US$ 7 – 15 million</td>
</tr>
<tr>
<td>Poachers</td>
<td>US$ 8 – 13 million</td>
<td>US$ 6 – 43 million</td>
</tr>
</tbody>
</table>

Note: International trafficking summarizes intermediaries, exporters and wholesale traders. The income presented as breakdown of the overall market size is the gross income minus the income of the actors earlier in the supply chain. The estimates are to be understood as orders of magnitude, not robust statistics. The numbers are based on the model of a consecutive supply chain: poacher — trafficker Africa — international trade — trafficker Asia — retail Asia. This model is thought to be applicable to a majority of cases, but not all. One such exception would be manufacturing in Africa and direct shipments to end consumers in Asia. The ranges reflect different degrees of uncertainty (see methodology section).
Measuring the value of wildlife crime

Yearly average estimated illicit revenue throughout the entire supply chain

Yearly average estimated economic loss from taxation, environmental costs, natural resources & potential tourism losses
Illicit financial flows

IFFs are cross-border flows of resources that are illicitly generated, illicitly transferred, or illicitly used (SDG 16.4.1).

- The more complex the supply chain, the more potential for IFF

- The location of actors matters, too: the more divers, the larger the potential for IFF

- Ivory tends to have more complex and divers supply chains than rhino horn
Closing considerations

Data and information gaps

- Systematic monitoring of price data to understand market dynamics
- Collection of information on supply and demand at the country or subregional level
- Qualitative and quantitative information on trade flows and actors involved in the trade

Link to the report