

Ivory Case Study

I: Ivory World WISE Seizure Data

Analysis of illegal ivory (kg) data was based on seizure records in World WISE from 2005 to 2014. Source of shipment does not necessarily indicate origin of the specimen. Destination of shipment does not necessarily indicate the final destination and could indicate a transit country. Ivory and ivory pieces were used in the analysis and conversions were applied to convert number of items to kg. See table for details on conversions.

Figure. Seized Ivory (kg), 2005 to 2014. Conversions applied.

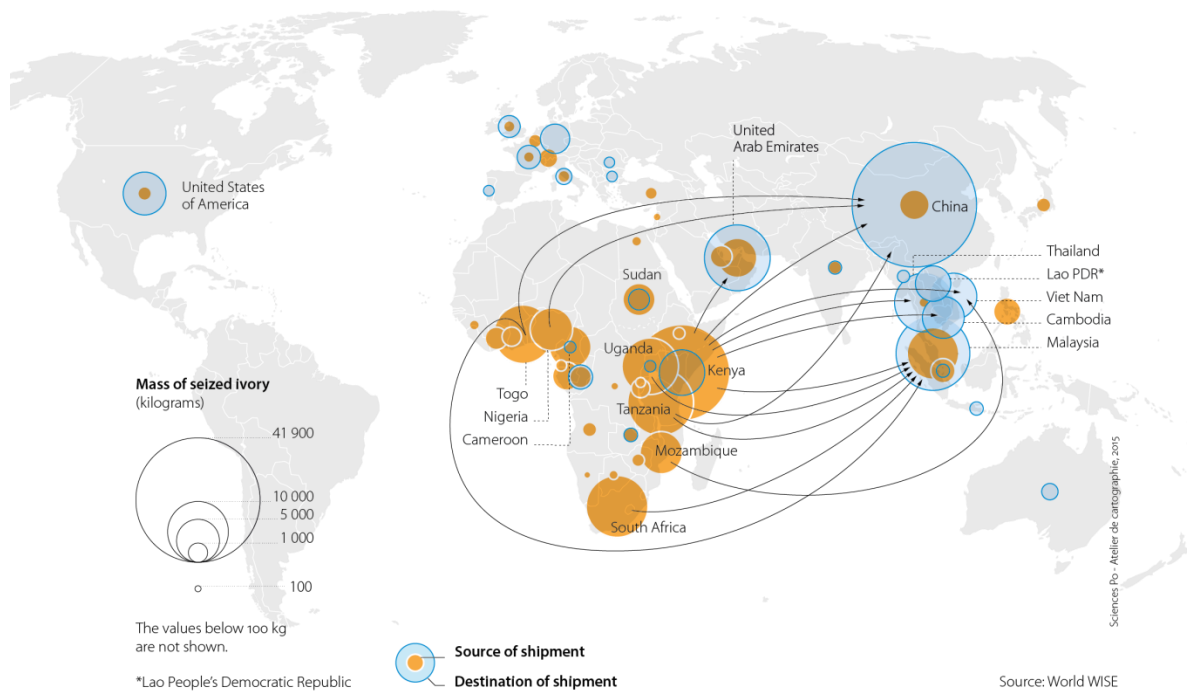


Table. Conversions for seized ivory in World WISE, 2005 to 2014.

Commodity types	Weight	Units (no. of items)	Comments
Final Ivory conversions	124130kg	0	Includes Ivory pieces and tusks all converted to kilograms.
Ivory Pieces	24920 kg	5640	A conversion ratio of 1 ivory piece to 3.66 kg of ivory was used.
Tusks	99209 kg	9296	A conversion ratio of 1 tusk to 5.45 kg of ivory was used.

Summary tables for weight of ivory (kg) seized, according to seizure records in World WISE, 2005 to 2014. Conversion applied.

Table. Weight of ivory (kg) seized with information on source of shipment or destination of shipment, 2005 to 2014. Conversion applied.

Source of shipment	Weight of Ivory (kg)	% of total seized
Source of shipment	103,121	83%
Unknown source	21,009	17%
Total seized	124,130	100%

Sources: World WISE

Destination of shipment	Weight of Ivory (kg)	% of total seized
Destination of shipment	95,636	77%
Unknown destination	28,494	23%
Total seized	124,130	100%

Sources: World WISE

Table. The top 10 countries and territories for source and destination of shipment, weight of ivory (kg) seized from 2005 to 2014. Conversion applied.

Top 10 source countries/territories of shipment	Weight of Ivory (kg)	% of total seized
Kenya	24,289	20%
United Republic of Tanzania	10,986	9%
South Africa	9,562	8%
Togo	8,525	7%
Uganda	7,856	6%
Malaysia	6,430	5%
Nigeria	4,324	3%
Mozambique	4,195	3%
Cameroon	4,089	3%
United Arab Emirates	3,526	3%
Other 79 countries and territories	19,338	16%
Unknown	21,009	17%
Total	124,130	100%

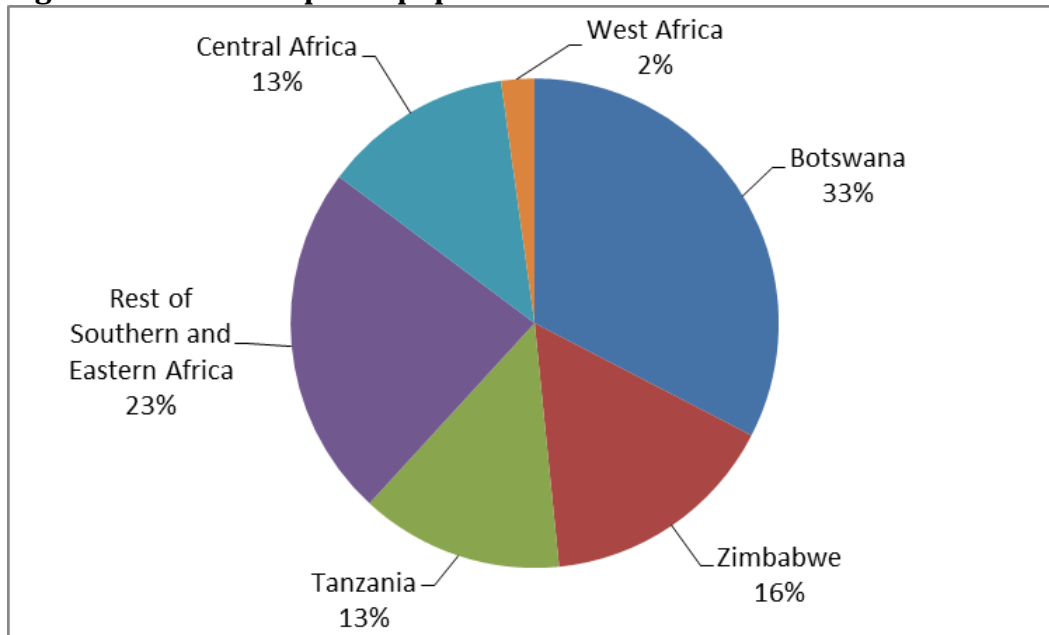
Source: World Wise

Top 10 destination countries/territories for shipment	Weight of Ivory (kg)	% of total seized
China	41,844	34%
China	26,831	
China, Hong Kong SAR	14,960	
Taiwan province of China	53	
Malaysia	11,905	10%
Thailand	10,615	9%
Viet Nam	5,140	4%
Kenya	4,926	4%
United States of America	4,296	3%
Cambodia	4,080	3%
Lao People's Democratic Republic	2,810	2%
United Arab Emirates	1,979	2%
Germany	1,835	1%
Other 44 countries and territories	6,207	5%
Unknown	28,494	23%
Total	124130	100%

Source: World Wise

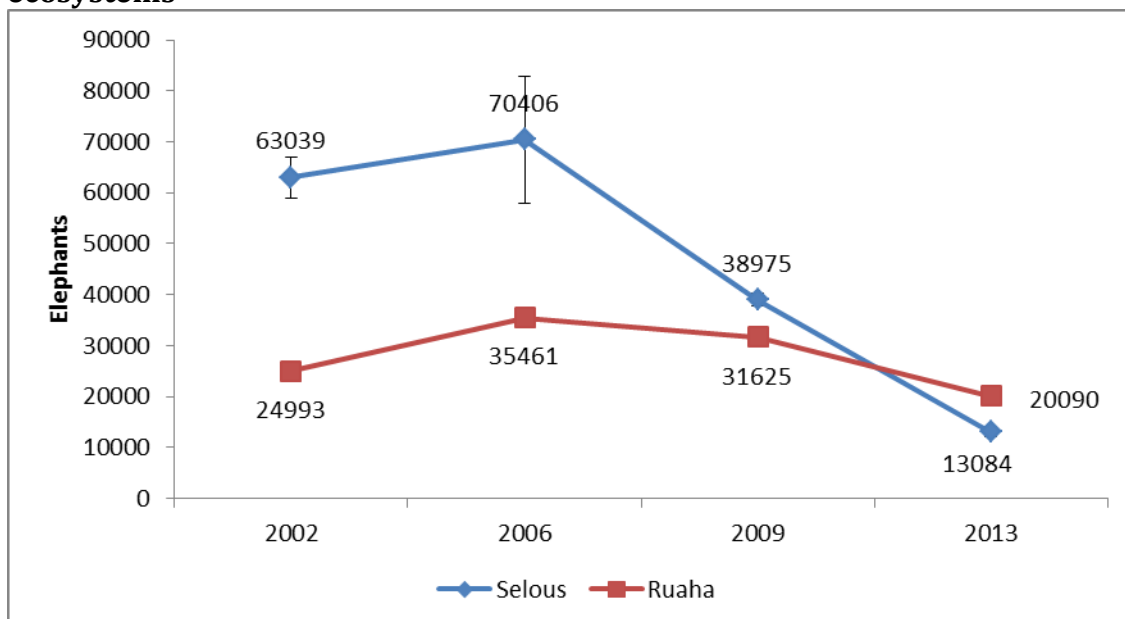
II: Draft Tables and Figures in the Ivory Chapter (including rhino horn)

Figure: Probable elephant populations in Africa in 2013



Source: IUCN/SSC/AFESG African Elephant Specialist Group

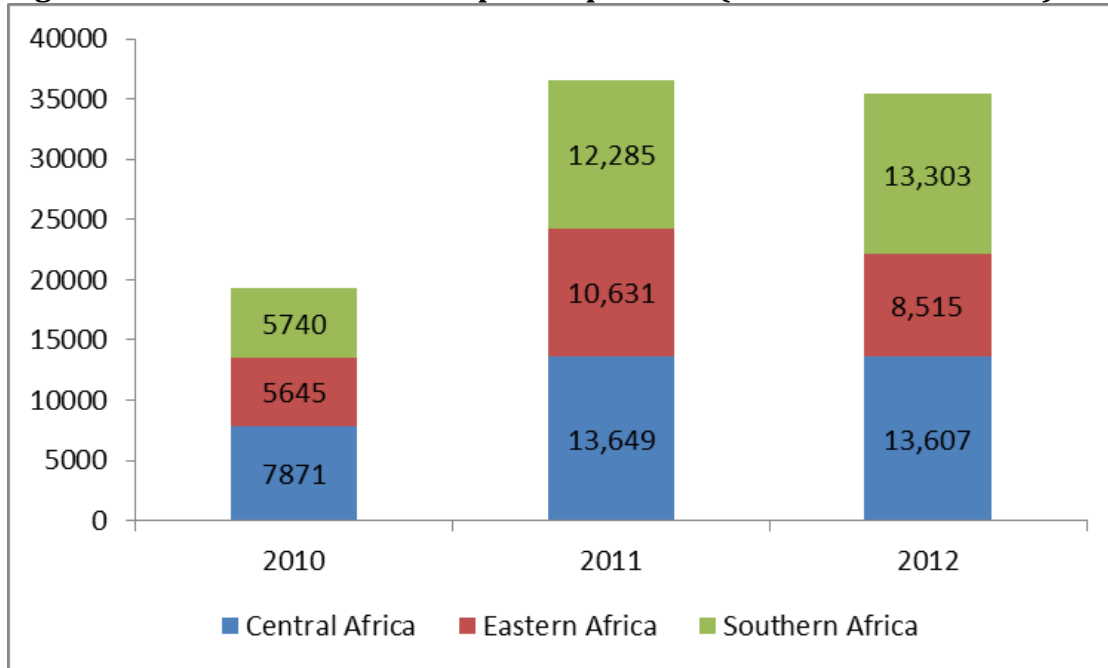
Figure: Elephant population estimates in the Selous-Mikumi and Ruaha Rungwa ecosystems



Source: TAWIRI 2013¹² (vertical lines represent 95% confidence intervals)

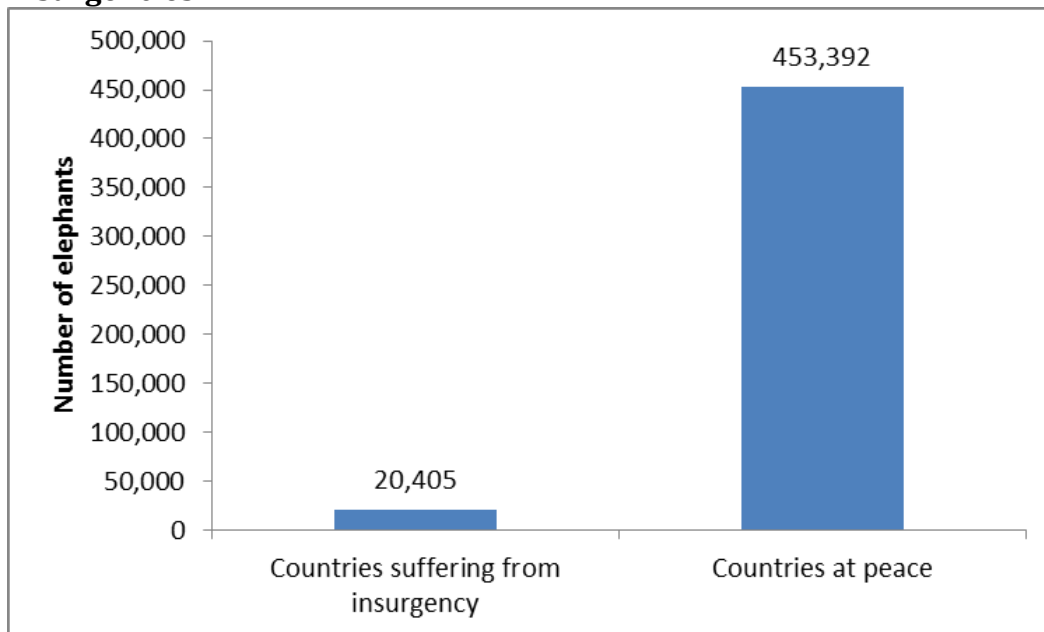
¹² Tanzania Wildlife Research Institute

Figure: Estimated number of elephants poached (model-based method)



Source: Elaborated from Wittemyer et al 2014¹³

Figure: Probable elephant populations in the 11 African countries with insurgencies¹⁴

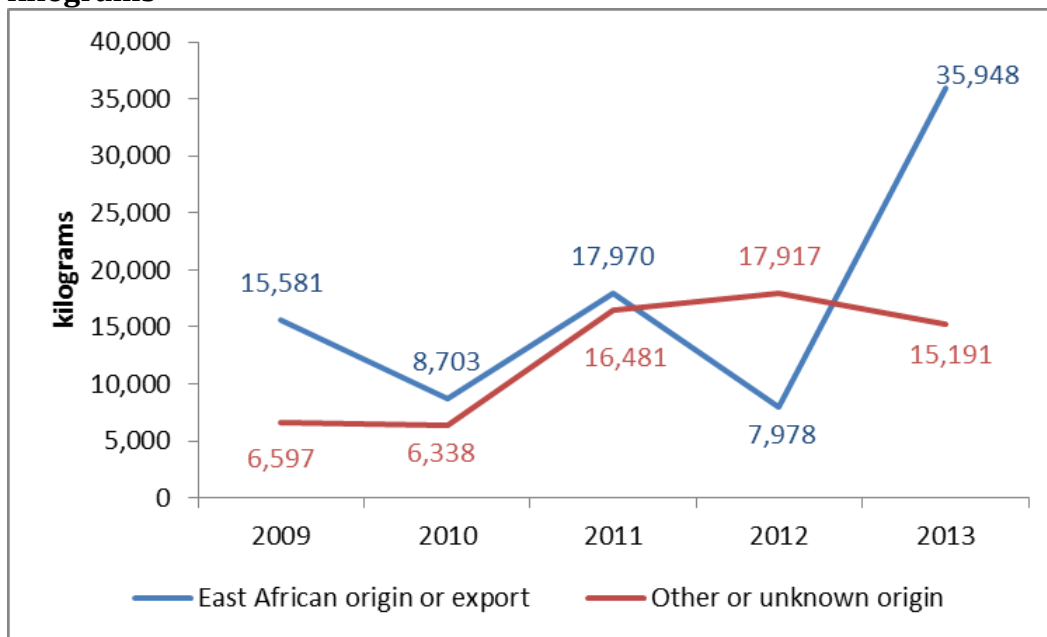


Source: IUCN/SSC/AFESG African Elephant Specialist Group

¹³ George Wittemyer, Joseph M. Northrup, Julian Blanc, Iain Douglas-Hamilton, Patrick Omondi, and Kenneth P. Burnham, 'Illegal killing for ivory drives global decline in African elephants'. *PNAS*, vol. 111 no. 36, 2014.

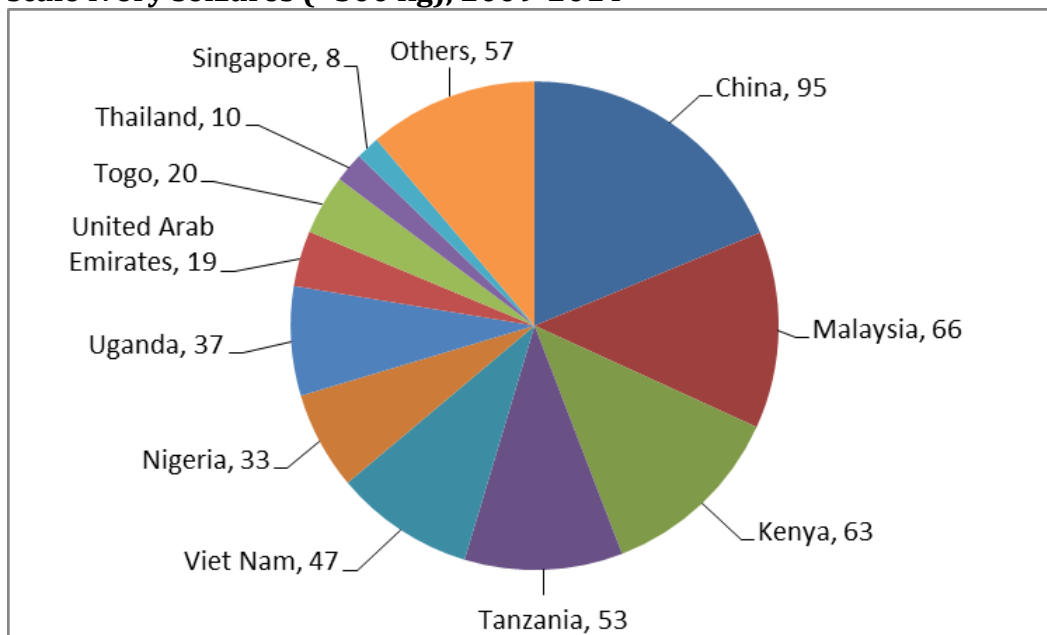
¹⁴ Countries with insurgencies include those affected by Boko Haram (Nigeria, Cameroon, Niger, and Chad), the Lord's Resistance Army (Central African Republic, Democratic Republic of the Congo, and Sudan), the South Sudanese civil war, the CAR civil war, the Somali civil war, and the various insurgent groups active in the DRC, Ethiopia, and Burundi. While it has been alleged that Al Shabaab is deriving income from poaching in Kenya, very little evidence has been marshalled to defend this claim. See RUSI 2015.

Figure: Exporting region of global large-scale (>500 kg) ivory seizures in kilograms



Source: CITES ETIS

Figure: Weight of ivory (metric tons) by country identified in trade chains of large-scale ivory seizures (>500 kg), 2009-2014



Source: CITES ETIS¹⁵

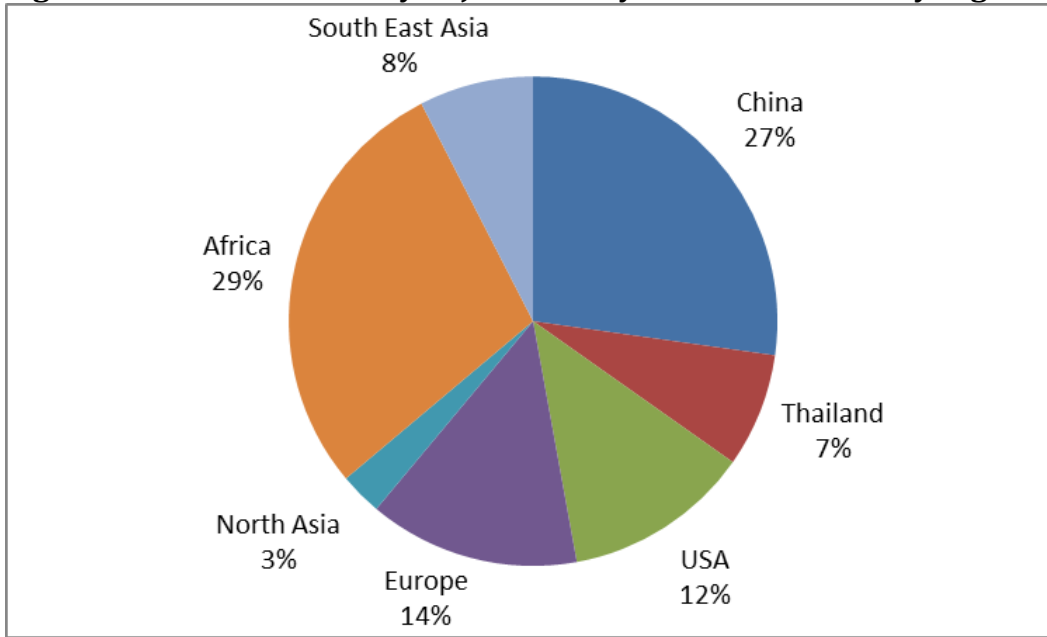
¹⁵ “China” includes Hong Kong Province of China.

Table: Most recent assessments of the number of ivory objects for sale by geographic area

<i>Year</i>	<i>Location</i>	<i>Objects/weight documented</i>	<i>Source</i>
2014	Luanda	10,888	Martin and Vigne
2014	Beijing	6,272	Vigne and Martin
2014	Shanghai	2,172	Vigne and Martin
2013	Lao PDR	1,929	Vigne
2013	Thailand	14,512	Doak
2011	Cairo	918	Martin and Stiles
2011	Fuzhou	282	Vigne and Martin
2011	Guangzhou	6,437	Vigne and Martin
2010/2011	Manila	264	Martin, Martin, and Vigne
2008	Vietnam	2,444	Stiles
2006	Myanmar	8,244	Nijman and Shepherd
2006	USA ¹⁶	23,825	Martin and Stiles
2005	Mozambique	3,254	TRAFFIC
2004	Germany	16,444	Martin and Stiles
2004	London	8,325	Martin and Stiles
2004	Paris	1,123	Martin and Stiles
2004	Barcelona	381	Martin and Stiles
2004	Madrid	240	Martin and Stiles
2004	Milan	240	Martin and Stiles
2004	Rome	126	Martin and Stiles
2003	Nigeria	4,988	TRAFFIC
2003	Ivory Coast	1,553.80 kg	TRAFFIC
2003	Senegal	353.4 kg	TRAFFIC
2002	Japan	5,358	Martin and Stiles
2002	Hong Kong SAR	35,884	Martin and Stiles
2002	Taiwan POC	1,382	Martin and Stiles
2002	South Korea	36	Martin and Stiles
2001	Cambodia	1,683	Martin and Stiles
2000	DRC	3,324	Martin and Stiles
2000	Gabon	462	Martin and Stiles
2000	CAR	2,021	Martin and Stiles
2000	Cameroon	3,231	Martin and Stiles
2000	Chad	459	Martin and Stiles
2000	Ethiopia	9,996	Martin and Stiles
2000	Zimbabwe	20,475	Martin and Stiles
2000	South Africa	6,512	Martin and Stiles

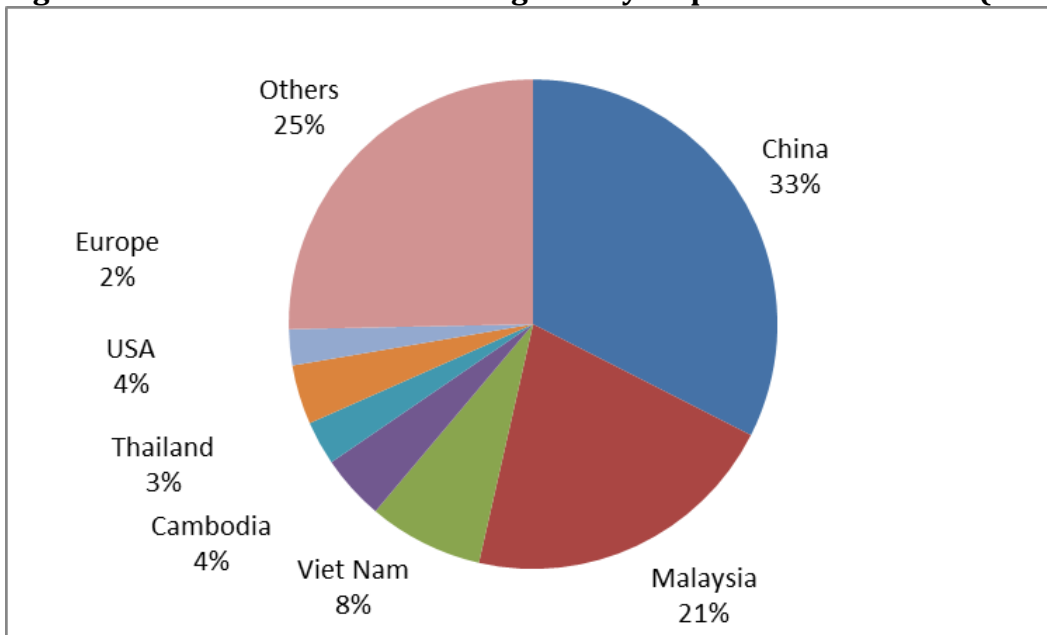
¹⁶ This includes surveys in Boston, New York City, Washington D.C., Palm Beach, Miami, Atlanta, Chicago, Dallas, Houston, Phoenix, Las Vegas, San Francisco, Los Angeles, San Diego, and Honolulu.

Figure: Distribution of ivory objects surveyed retail markets by region



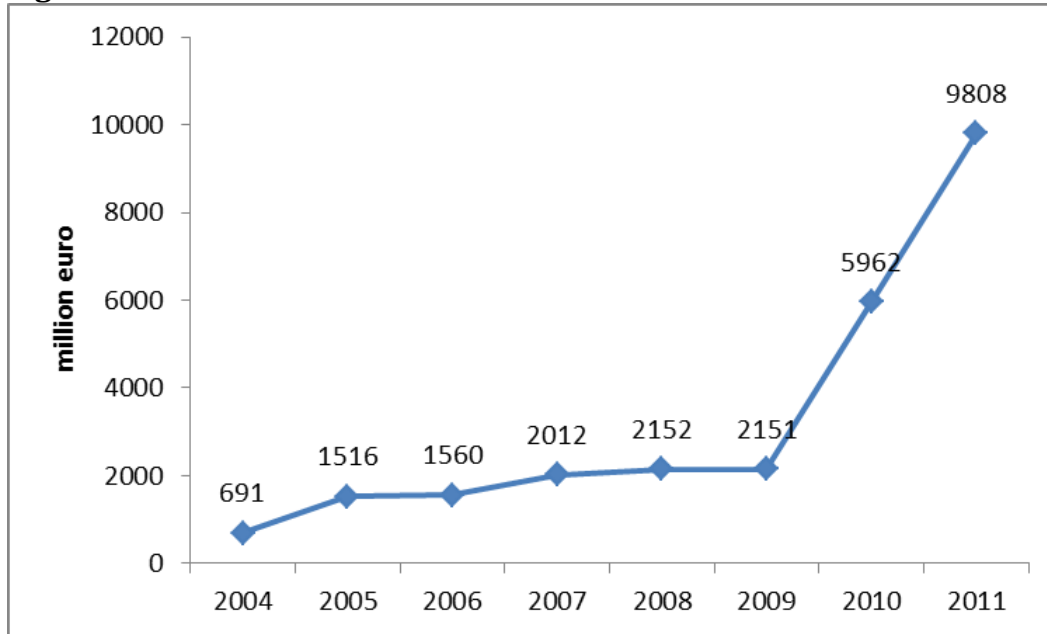
Source: Table

Figure: Destination of detected illegal ivory shipments 1999-2015 (n=87MT)



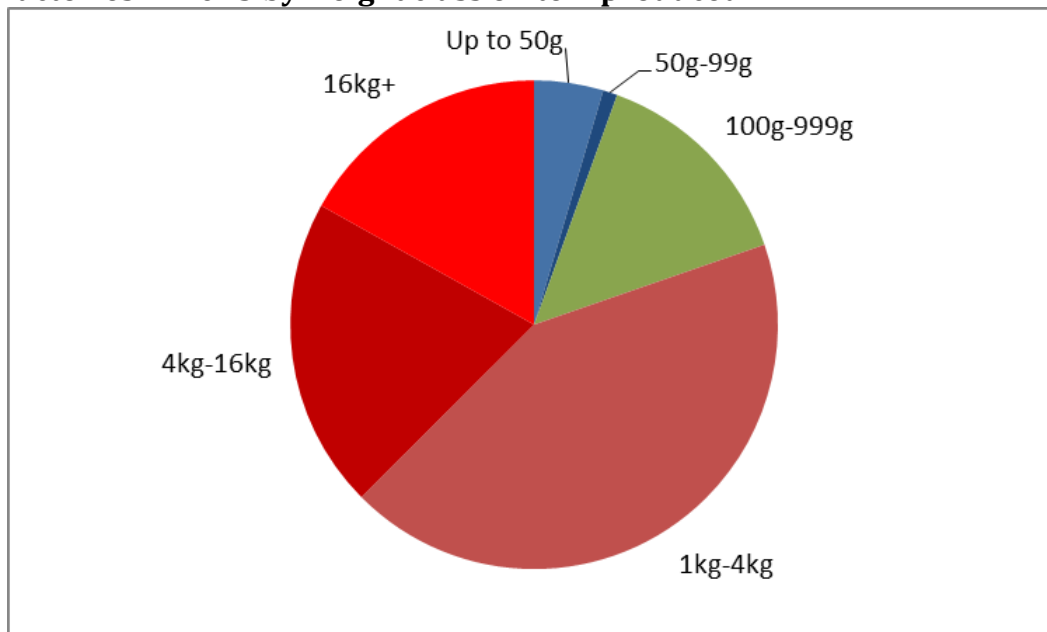
Source: World WISE

Figure: Sales of art at auction in China



Source: TEFAF 2011¹⁷

Figure: Share of total weight of ivory items produced by legal Chinese carving factories in 2013 by weight class of item produced

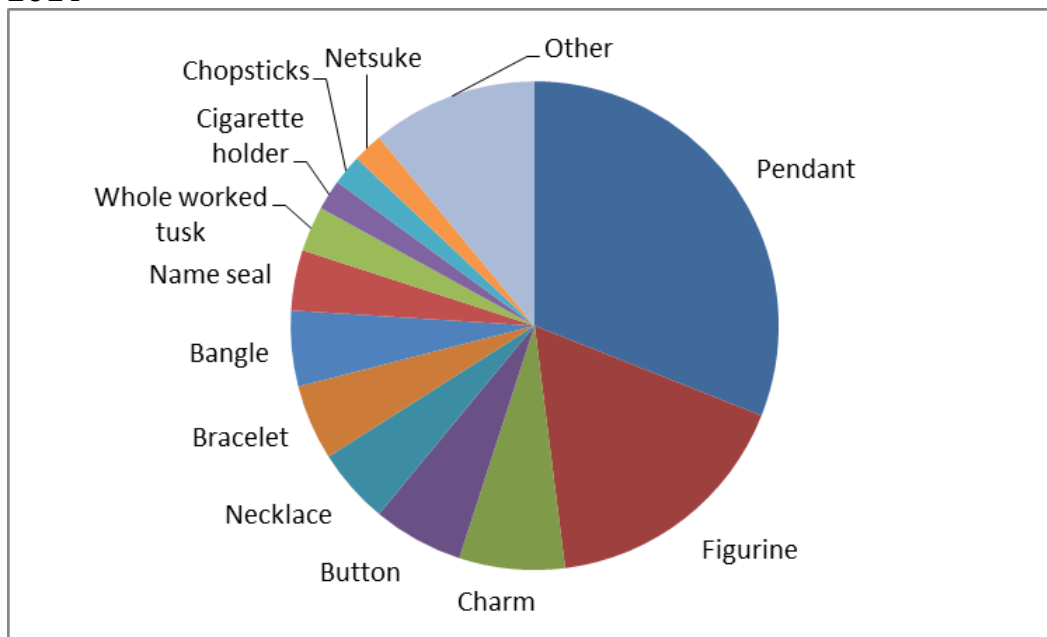


Source: Detecting Centre for Wildlife, Harbin, as quoted in Moyle and Conrad 2014¹⁸

¹⁷ Claire McAndrew, *The international art market in 2011*. Helvoirt, The European Fine Art Foundation, 2011, p. 23.

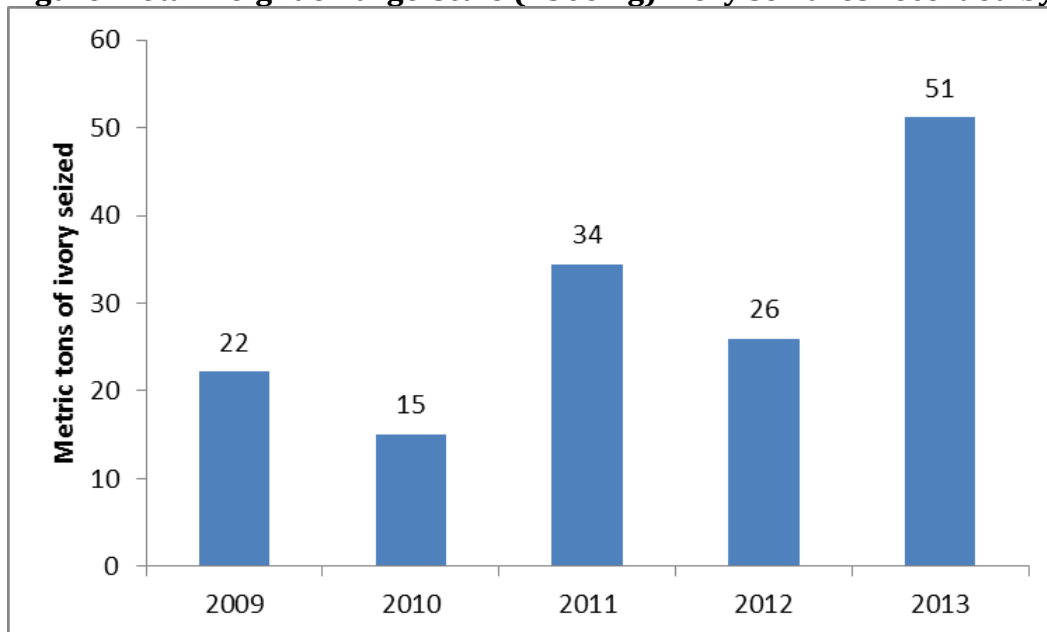
¹⁸ Brendan Moyle and Kirsten Conrad, *Dirty Laundry: Are Chinese Legal Ivory Factories Using Poached Ivory as an Input?* 29 October 2014. Available at SSRN: <http://ssrn.com/abstract=2516504> or <http://dx.doi.org/10.2139/ssrn.2516504>

Figure: Breakdown of elephant ivory items for retail sale seen in Beijing in May 2014



Source: Vigne and Martin 2015¹⁹

Figure: Total weight of large-scale (>500 kg) ivory seizures recorded by ETIS

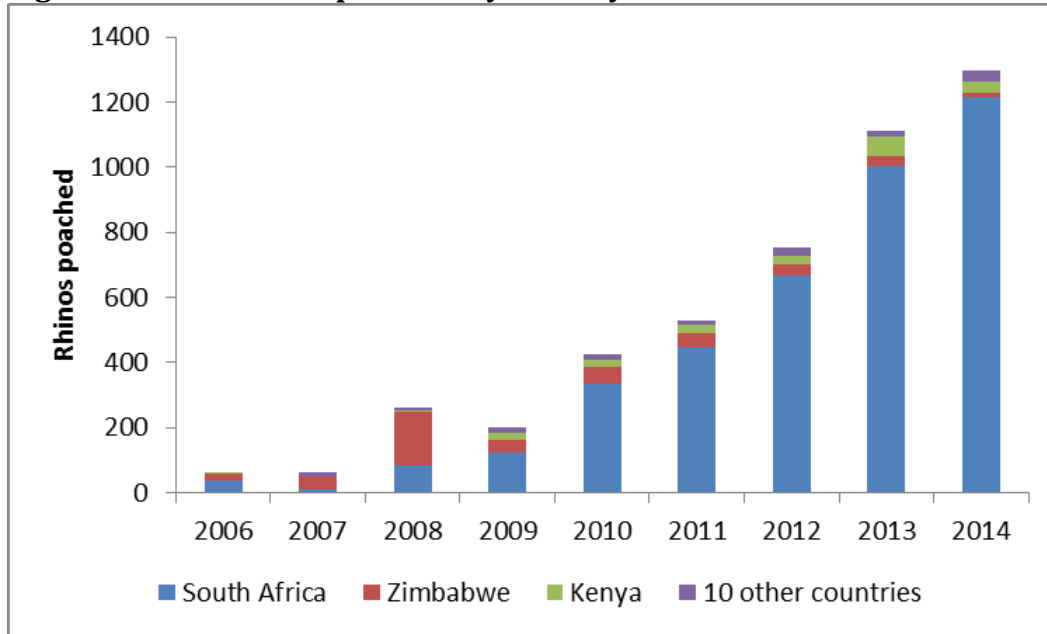


Source: CITES ETIS²⁰

¹⁹ Vigne and Martin 2015. Lucy Vigne and Esmond Martin, *China faces a conservation challenge: the expanding elephant and mammoth ivory trade in Beijing and Shanghai*. Nairobi: Save the Elephants, 2015

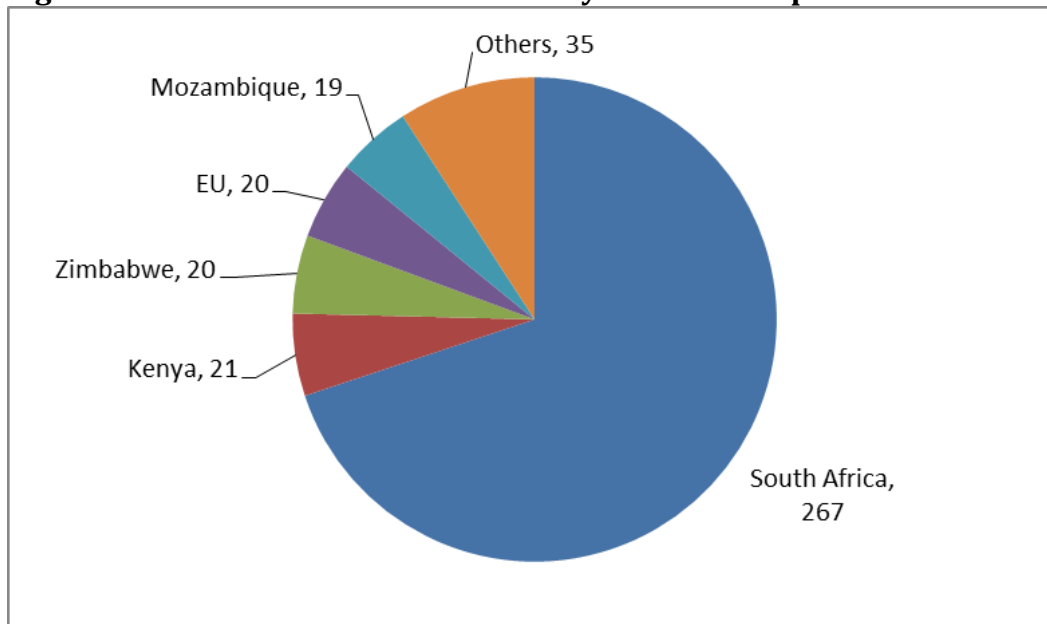
²⁰ "China" includes Hong Kong Province of China.

Figure: African rhinos poached by country



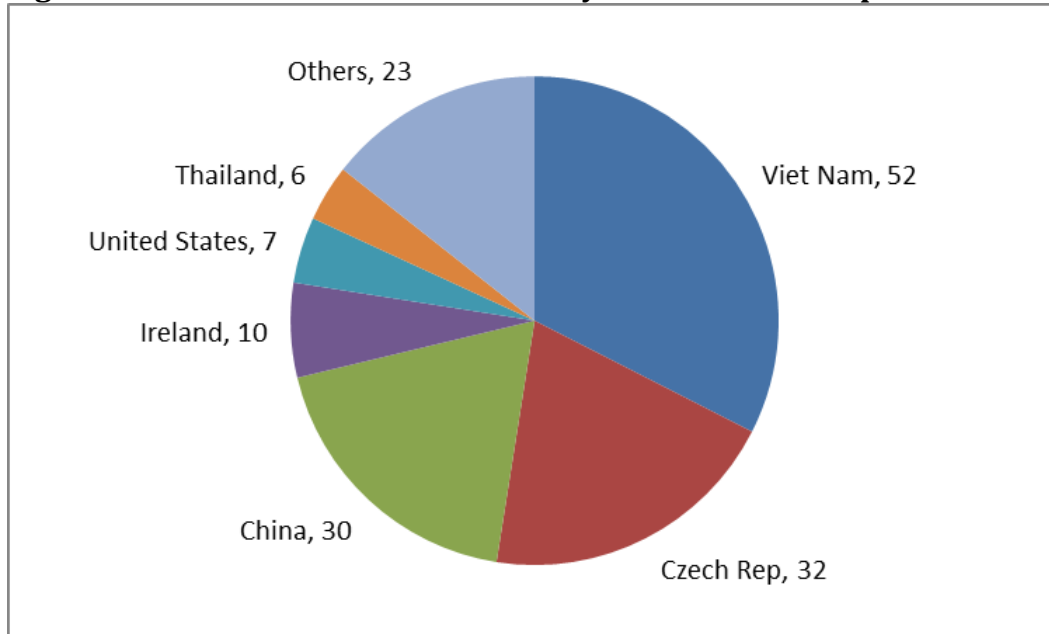
Source: Emslie 2015. Personal communication from Dr. Richard Emslie, Scientific Officer, IUCN African Rhino Specialist Group.

Figure: Number of rhino horns seized by source of shipment



Source: World WISE

Figure: Number of rhino horns seized by destination of shipment



Source: World WISE