

A cheetah is lying in tall, dry grass, looking towards the camera. The cheetah's body is covered in its characteristic black spots, and its face has the distinctive black stripes. The background is a soft-focus field of similar grass.

Illegal Cheetah Trafficking Patterns

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Context & Question

1. World cheetah population has been **declining** due to illegal cheetah trade, down to 7000* in 2016
2. “What **patterns** exist for illegal cheetah trade and how can this information be used to prevent further cheetah loss?”
3. Our research looks at **1886** reported illegal cheetah trade incidents that occurred between 2010 and 2019, across 56 countries
4. Extensive **data cleaning** was conducted to extract cheetah age, life stage, price, and geo data
5. Three key themes emerged:
 - a. **Demographics** & Trade Incident Characteristics
 - b. **Geographic** Characteristics
 - c. **Socioeconomic** Factors

Data Cleaning

Demographic data cleaning

	incident_description	cheetah_age_in_months	price	currency
1881	cubs offered for sale by different dealers (WhatsApp group)	NaN	NaN	NaN
1882	(Code 017-032): Age: 4M; Sex: 1U; Price: UNK	4.0	NaN	NaN
1883	(Code 455-002): Age: 10M; Sex: 1M; Price: 22000 SAR	1.0	22000.0	SAR
1884	(Code 677-001): Age: 2Y3M; Sex: 1M; Price: 32000 SAR	27.0	32000.0	SAR
1885	(Code 457-002): Age: 3M; Sex: 1M,1F; Price: 26000 SAR	3.0	26000.0	SAR

Geo data cleaning

Raw data

Incident	country	country_role
1	UAE	destination
3	Somalia	origin
4	Saudi Arabia	transit



Pivot + Summarize

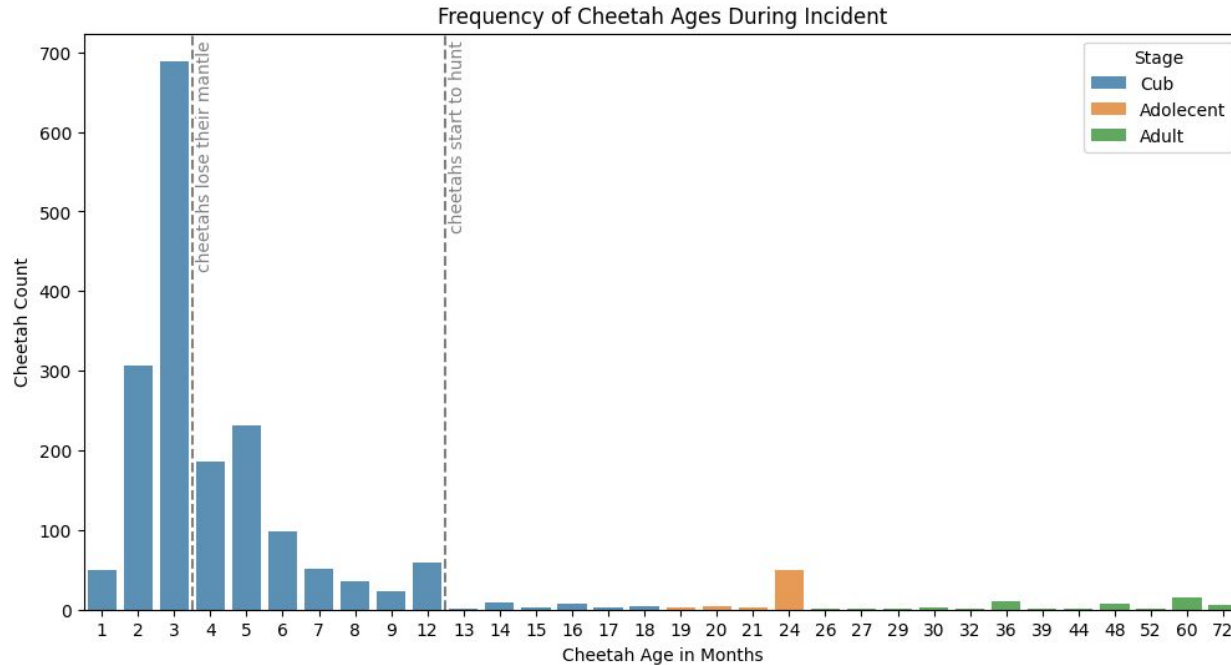
country	origin	destination	transit
UAE		1	
Somalia	1		
Saudi Arabia			1



Join

	x_if_known	x_if_known	x_if_known
UAE	3		
Somalia		4	4
Saudi Arabia		2	10

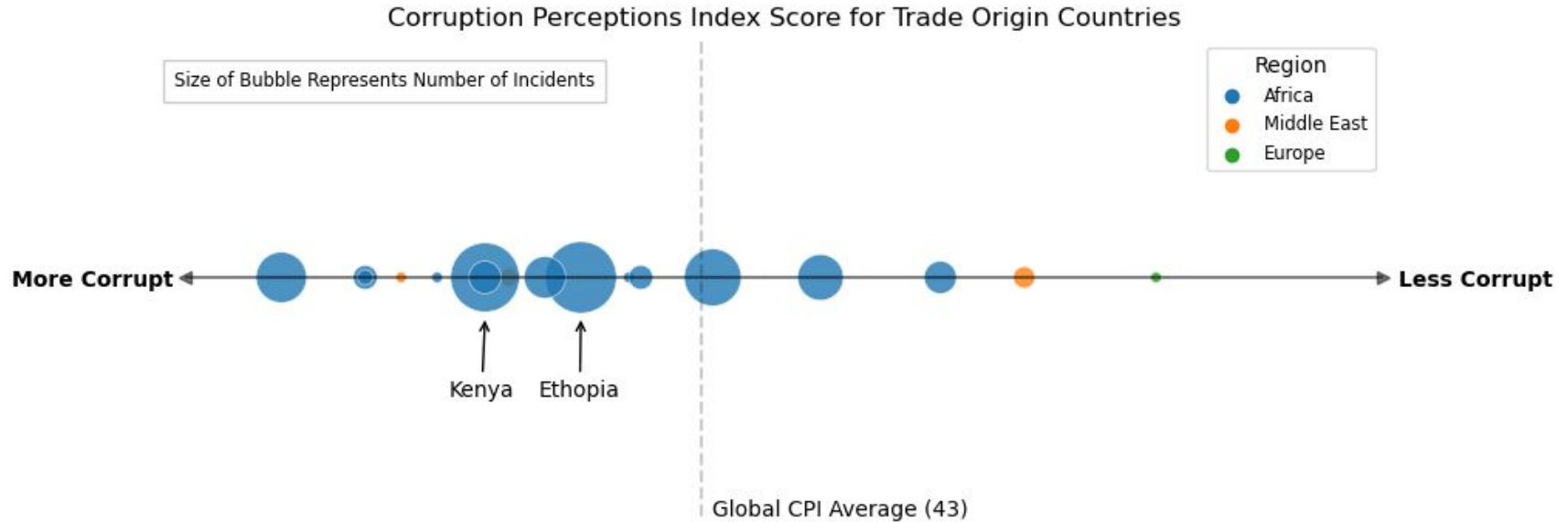
Trade Characteristics: Most cheetahs are traded individually as young cubs



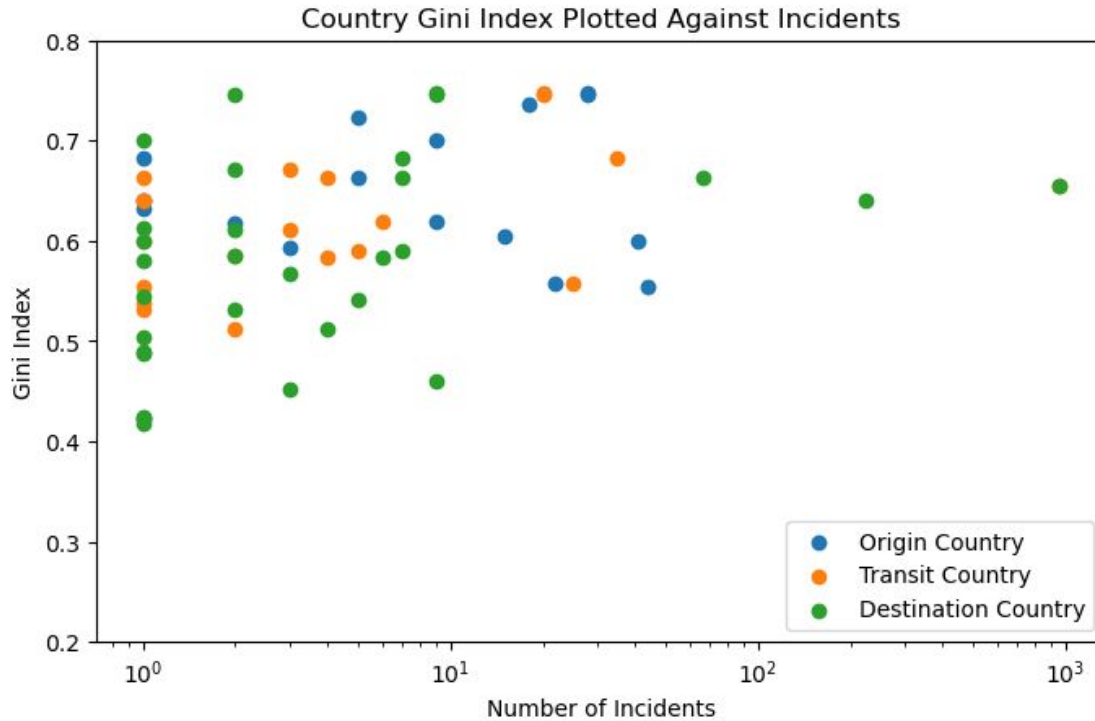
Geographic Characteristics: most cheetahs are traded from Eastern Africa -> Middle East



Socioeconomic Characteristics: Corruption



Socioeconomic Characteristics: Inequality



Conclusion & Implications

1

Poachers are most likely to **trade live cheetahs that are still cubs**, and typically only transport one animal at a time

IMPLICATION

Wildlife conservationists and government officials should increase protection for cheetah cubs

2

Incidents are **most likely to occur in the Middle East and East Africa regions**, originating more frequently in Somaliland, Ethiopia, and Kenya and the destination most commonly being Saudi Arabia

Focus protection in East African countries and increase efforts to monitor illegal animal trade and be vigilant for animal smuggling in Saudi Arabia, Kuwait, and the UAE

3

Trafficking originates in areas that **tend to be more corrupt**, and countries where these incidents occur also tend to have **greater income inequality**

Increase awareness of the socioeconomic factors that may put certain markets at risk

References

Primary Dataset:

Tricorache, Patricia; Marker, Laurie; Yashphe, Shira (2021), "Global dataset for seized and non-intercepted illegal cheetah trade (*Acinonyx jubatus*) 2010-2019.", Mendeley Data, V2, doi: 10.17632/84k92j4n3y.2

Secondary Datasets:

Corruption Perception Index Data (2015)

"Corruption Perception Index 2015". Transparency International. Retrieved 1 December 2023.

Gini Coefficient Data (2015)

"Pre-Tax National Income | Total Population | Gini Coefficient | Adults | Equal Split | 2015". World Inequality Database.

Retrieved 1 December 2023.

Other:

Cheetah Conservation Fund | <https://cheetah.org/>