


A photograph of a tropical forest with a wooden walkway and a person in a white hard hat. The forest is dense with green foliage, including palm trees. A person wearing a white hard hat and a light-colored shirt is walking on the wooden walkway. Another person is visible further down the path. The scene is set in a lush, green environment.

# Emerald Mining and Human Security

A photograph of a person in a grey shirt working with a large metal container. The person is leaning over the container, which is filled with dark material, possibly ore or soil. The background shows a dirt path and some vegetation.

A Comparative Case Study of Emerald Mining in Colombia & Zambia

# The Team

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# Project Overview

- Research project on emerald mining in Colombia and Zambia through the lens of the Jewelry Development Impact Index (JDII).
- Continues research started in Fall 2017 adding more countries researched and building upon and modifying the Fall 2018 methodology to increase scalability.

# Objectives

A two-country  
comparison of Colombia  
and Zambia

Improved scalability of  
existing methodology -  
An eight country  
comparison

# Jewelry Development Impact Index Overview

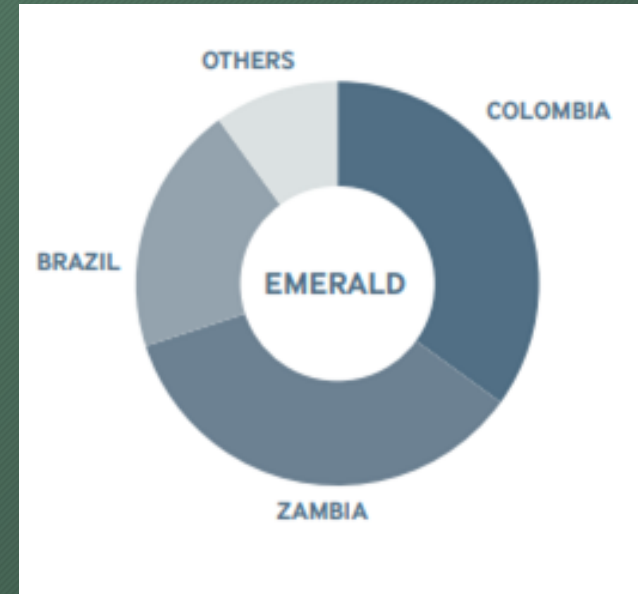
Scoring - Level of Risk to Human Security

0	Always or Yes	No Risk
1	Almost Always	Very Low Risk
2	Usually	Low Risk
3	Sometimes	Moderate Risk
4	Almost Never	High Risk
5	Never or No	Very High Risk

- Production of jewelry has a significant impact on the economies, development, conflict management, and peace in the countries in which the industry functions.
- Presently, the international jewelry industry lacks a standardized tool to measure how it impacts socio-economic activities.

# Emeralds Around the World

- Emeralds are a variety of the mineral beryl and must have a rich green color or else are classified as green beryl, aquamarine or heliodor.
- Naming affects pricing and marketability.
- Many common imitations.



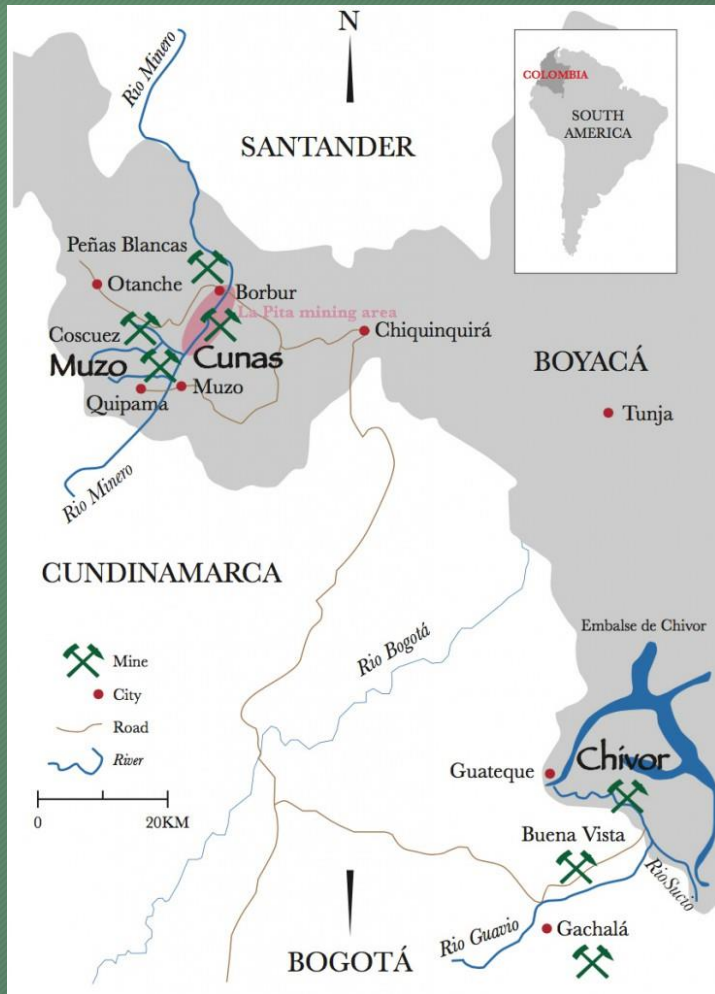
*Estimated geographical distribution  
(as of 2015)*



# Zambia and Colombia

Select Findings

# Overview of Emerald Mining in Colombia





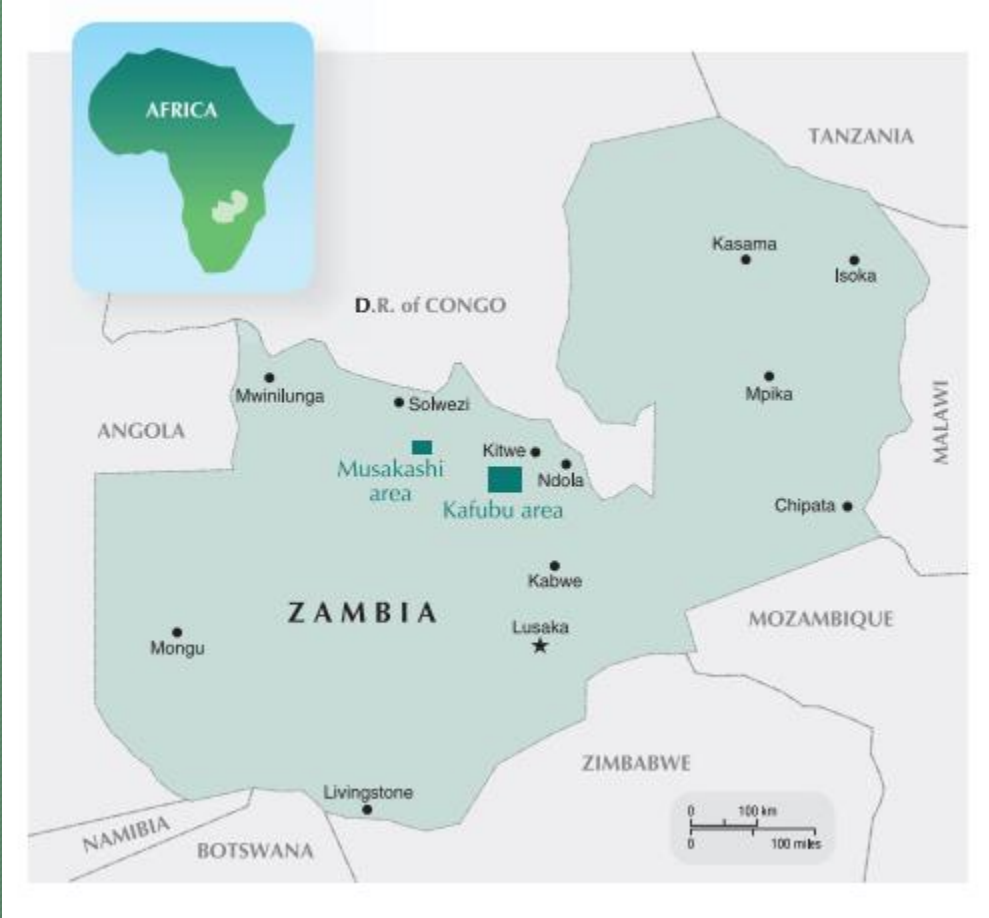
# Key Findings: Colombia

- Government institutions in place help lower risk to human security.
- Presence of informal mining.

*“Today, criminal mining brings more money to criminal groups, to guerrilla groups, to mafias... than drug trafficking” - Former President Juan Manuel Santos, 2015*

- Lack of enforcement mechanisms for environmental regulation.
- Afro-Colombian and indigenous peoples are disproportionately affected by displacement.

# Overview of Emerald Mining in Zambia



# Key Findings: Zambia

- Capital Flight: Lack of beneficiation limits Zambia's ability to leverage its economic potential.
- Low local demand for finished emerald products.
- Informal and unlicensed sales drive down market prices.
- Exclusion of women in large-scale mining.
- Effects of mining on the HIV/AIDS epidemic in Zambia.



# Comparison



Colombia's *Fura* emerald

## Differences

- Formal vs. informal
- Remediation processes after the closure of mines
- Open pit vs. tunneling
- Presence of non-state actors

## Similarities

- Indigenous people displacement
- Weak environmental regulation enforcement
- Informal child labor

Zambia *Lion* emerald



# Moving Forward

- Increasing internal effectiveness and oversight
- Enforcement of regulations and policies
- Formalizing the mining industry
- Increase access to and quality of health care



# Gaps and Successes

- Available data was generalized.
- Lack of specific information to the emerald mining industry.
- Information on governance was quite limited and potentially biased.
- Additional concrete information on the informal markets.

# Methodology Overview

- Indicators and sub-indicators
- Identification of key questions; in line with OECD Guidelines
- Interviews with key informants
- Literature review and desk research
- Averaging

# Modifications

## Standardized Scoring

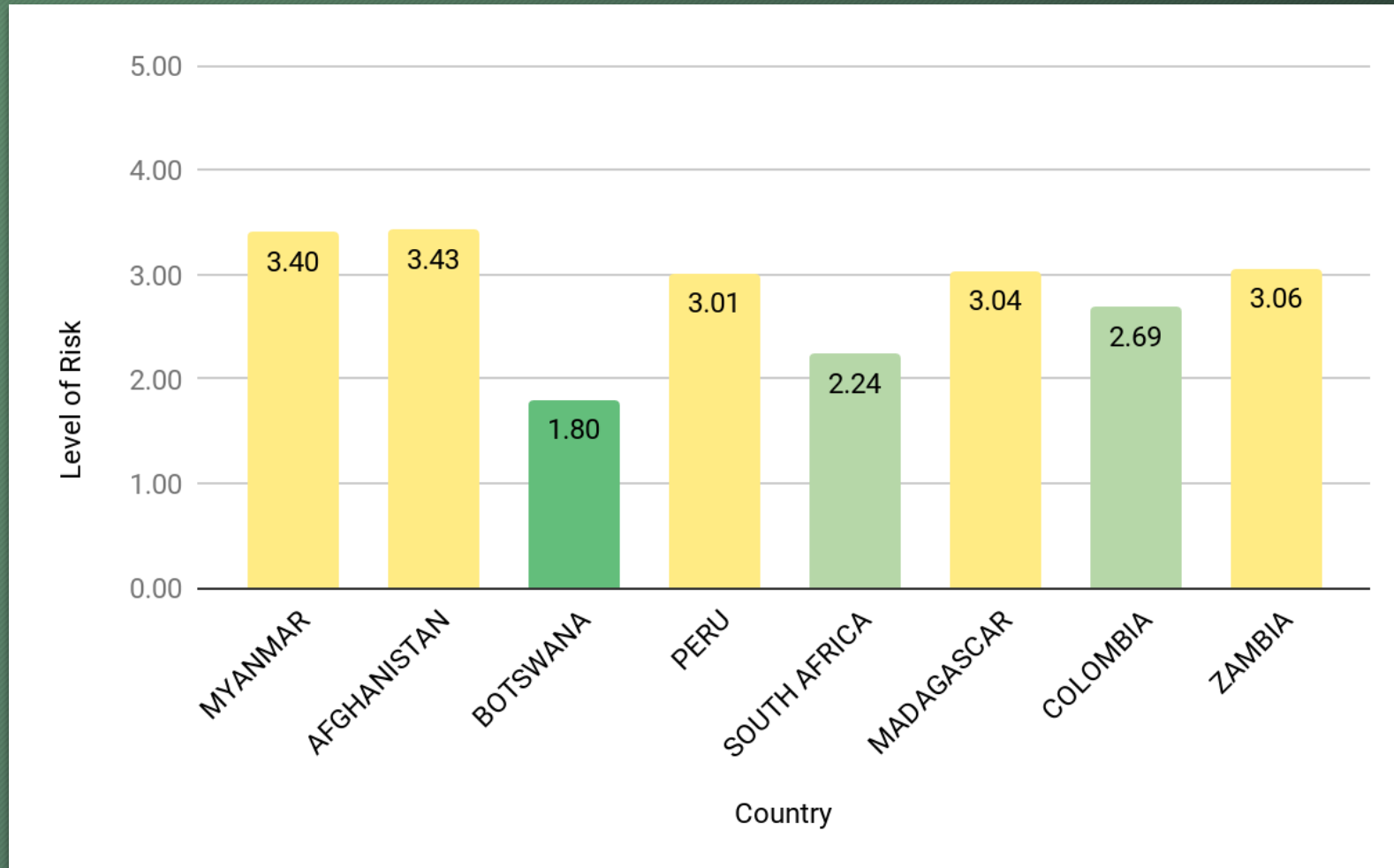
- Previously : 0-1 scale for some questions; 0-5 score for others.
- Scoring method changed to standardize the 0-5 scoring across all questions.

## Scalability

- Moving from case studies to a comparable index score.
- Broader questions applicable to more countries.
- Eight-country Comparison



# Eight-Country Comparison



Conclusion



Questions