Jewelry Industry Impacts

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December 5th, 2017
Agenda

- Project overview
- Methodology
- Socio-cultural context
- JDII Framework

- Breakdown
  - Politics & Government
  - Economy
  - Social, Cultural & Human Rights
  - Health & Environment

- Gap Analysis
- Conclusion
- Questions
Project Overview

• Initiated by State Department and Joia Consulting
• Comparative case study of the impacts of gold in Peru and diamonds in Botswana
• Jewelry Development Impact Index (JDII)
Methodology

• Stakeholder interviews
• Independent research
  • NGOs, private industry, government, etc.
• Qualitative assessments
Botswana

Source: CNBC

Source: True Africa
Peru

Source: Thinglink

Source: Associated Press
Politics & Government
- Governance and Accountability
- Transparency
- Corruption
- Industry Regulation

Economy
- Industry Employment
- Taxation
- Revenue Distribution
- Diversification
- Budget Sustainability
- Beneficiation

Environment & Health
- Environmental Damage
- Health

Social, Cultural & Human Rights
- Workers' Rights
- Indigenous Rights
- Women and Children's Rights
- Use of Certification Programs
- Conflict
- Presence of Criminal Organizations

Jewelry Development Impact Index (JDII) Framework

Worse  Same  Better
<table>
<thead>
<tr>
<th>Transparency</th>
<th>Botswana</th>
<th>Peru</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Critiqued for secrecy and lack of transparency in the diamond industry</td>
<td>• Efforts to increase budgetary sustainability have increased transparency, at least at the central government level</td>
<td></td>
</tr>
</tbody>
</table>
Industry Regulation

Peru

• Struggles to address high levels of informality and illicit gold mining operations

Botswana

• Formed one of the most successful partnerships in the world with its diamond industry partners

Rank: 55th (out of 109)

Rank: 14th (out of 109)
<table>
<thead>
<tr>
<th>Industry Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Peru</strong></td>
</tr>
<tr>
<td>• High rates of informal and illicit industry employment</td>
</tr>
<tr>
<td><strong>Botswana</strong></td>
</tr>
<tr>
<td>• Mining is the third-highest compensated sector</td>
</tr>
<tr>
<td>• Potentially unsustainable indirect government employment</td>
</tr>
</tbody>
</table>

Source: Borgen Magazine

Source: Mining Technology
Revenue Distribution

<table>
<thead>
<tr>
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<th>Botswana</th>
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• “Derivation” system
• Inter-regional competition over resources, weak local accountability, lack of capacity to make effective local investment

• Bottom-up approach to development priorities
• Rising rural-urban tension
CANON MINERO
50% OF CORPORATE INCOME TAX FROM MINING FIRMS

75%
MUNICIPAL
GOVERNMENTS

25%
REGIONAL
GOVERNMENTS

10%
MUNICIPAL
GOVERNMENT OF
THE DISTRICT WHERE
THE CONCESSION IS
LOCATED
(shared equally if more
than one district)

25%
ALL MUNICIPAL
GOVERNMENT(S) OF THE
PROVINCE WHERE THE
CONCESSION IS LOCATED
(including the producing
district, based on basic
needs, infrastructure
deficits and population)

40%
ALL MUNICIPAL GOVERNMENT(S)
OF THE REGION WHERE THE
CONCESSION IS LOCATED
(including the producing province;
based on basic needs, infrastructure
deficits and population)

20%
REGIONAL
GOVERNMENT

5%
PUBLIC
UNIVERSITIES
IN THE
REGION
Revenue Distribution

Peru

• “Derivation” system
• Inter-regional competition over resources, weak local accountability, lack of capacity to make effective local investment

Botswana

• Bottom-up approach to development priorities
• Rising rural-urban tension
Measuring Distribution of Revenue

Resource Governance Index

(Peru: 57, Botswana: 62)

Source: Natural Resource Governance Index
Measuring Distribution of Revenue

World Bank Governance Index
Political Stability and Absence of Violence

Source: World Bank Governance Index
Beneficiation

<table>
<thead>
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<th>Botswana</th>
</tr>
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<tbody>
<tr>
<td>Fewer positive examples</td>
<td>Many examples of positive diamond industry efforts to provide lasting positive benefits through infrastructure, social programs, and human development</td>
</tr>
<tr>
<td>Conflict between mining companies and local communities regarding environmental and social community needs</td>
<td></td>
</tr>
</tbody>
</table>
Measuring Beneficiation

Location of Concessions

Distance from Roads

Source: William & Mary, Aid Data
## Workers’ Rights

<table>
<thead>
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<th>Botswana</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Lured under false pretenses</td>
<td></td>
</tr>
<tr>
<td>• Debt bondage</td>
<td>• Debswana employee benefits</td>
</tr>
<tr>
<td>• Unsafe standards</td>
<td>• Disease management</td>
</tr>
<tr>
<td></td>
<td>• Financial training</td>
</tr>
<tr>
<td></td>
<td>• Restricted right to strike</td>
</tr>
</tbody>
</table>

Source: The Verite Report  
Source: Yahoo Finance
Measuring Workers’ Rights

The 2017 ITUC Global Rights Index

The World’s Worst Countries for Workers

http://survey.ituc-csi.org
#rightssindex

Comparison with 2016 score:
- No change or new in 2017
- Worse rating
- Improved rating
# Indigenous Rights

<table>
<thead>
<tr>
<th>Peru</th>
<th>Same</th>
<th>Botswana</th>
</tr>
</thead>
</table>
| • Mercury impacts  
  • Protest violence  
  • Vulnerable to exploitation  
  • *indocumentados* | | • Central Kalahari Game Reserve (CKGR) evictions  
  • Discrimination toward San people |

Source: Getty Images (left)  Survival International (above)
Measuring Indigenous Peoples’ Rights

• Not narrowly tailored towards mineral industries
• Create standard based on UN Declaration
Environment & Health

Environmental Damage

Health

Peru | Botswana

Peru | Botswana
## Environment

<table>
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<th>Botswana</th>
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<tbody>
<tr>
<td>• Massive scale deforestation</td>
<td>• Controlled and regulated mining</td>
</tr>
<tr>
<td></td>
<td>operations</td>
</tr>
<tr>
<td>• Fish species mercury poisoning</td>
<td>• R&amp;D for energy and water conservations</td>
</tr>
<tr>
<td>• Topsoil destruction</td>
<td>• Land restoration initiatives</td>
</tr>
</tbody>
</table>

Source: National Geographic (left), Rumbo Minero (right)
Measuring Environmental Impacts

• Measures apparel industry to understand environmental impact of making and selling products
• Could be adapted to fit mineral industry

The Higg Index
### Health

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<tr>
<td>• Mercury poisoning above WHO recommended safeguards</td>
<td>• Hundreds of millions of USD spent on anti-viral HIV/AIDS treatment</td>
</tr>
<tr>
<td>• Health emergency</td>
<td>• Debswana sponsored employee and spouse anti-viral program</td>
</tr>
</tbody>
</table>

#### Source: Mining.com
Gap Analysis

• Challenging data
  • Transparency issues
• Lack of jewelry-specific information
• Language barrier
Questions?
Additional Information Slides
“Corporate social responsibility” (CSR) and “sustainability” are two of many terms used to describe the social and environmental contributions and consequences of business activity.

The notion of sustainable development lies in progress within 3 dimensions:
1. Economic Development,
2. Environmental Protection
3. Social Cohesion
Potential Acceptance of JDII

Positive

• Countries, regions, and corporations that may gain significant business for positive scores
• Boost public opinion about the jewelry industry
• Large jewelry companies that want to boast about their commitment to CSR
• Risk management Perspective:
  • Financial Sector
  • Investors

Negative

• Countries, regions, and corporations that may lose significant business for negative scores
• Governments that will fight against bad reputation
• Smaller companies that may feel that they can not compete, particularly in ASM
  • Offset this by having a tier cost structure for smaller, medium, and large companies to able to join the index
Simplified Value Chain

Exploration and Mining (Upstream)

Processing and Transport (Middle-market)

Gold Refining

Diamond Cutting and Polishing

Retail (Downstream)
**Presence of Criminal Organizations**

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<tr>
<td>• Informal and illicit sectors</td>
<td>• Little to no presence</td>
</tr>
<tr>
<td>• Gold exceeds cocaine exports</td>
<td></td>
</tr>
<tr>
<td>• Variety of negative consequences</td>
<td></td>
</tr>
<tr>
<td>• Trafficking, child labor, etc.</td>
<td></td>
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</table>

- **Source:** InSight Crime