University of Exeter Camborne School of Mines (CSM)



Impact of Bauxite Mining in Guinea-Observations From The Field

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04-06-2019 ASI's AGM, Molde (Norway)

Overview

- 1. Introduction to CSM and research areas
- 2. Focus on bauxite mining in Guinea
- 3. Overview of Sustainable Development Goals (SDGs)
- 4. Overview of sustainable mining
- 5. Bauxite mining in the context of Guinea and key Challenges
- 6. Different stories of impacts
- 7. Building resilience for positive impact
- 8. Suggestions for improving the impact of bauxite mining
- 9. Conclusion





Camborne School of Mines (CSM)

- Multi-disciplinary covering geology, applied geology, mining engineering, mineral processing, surveying and social impacts & environmental management
- Work with Governments, Surveys, Universities, & Companies on a global basis
- Undergraduate and postgraduate Programmes
- Blended learning part-time (Mining Professional)

Research interests and areas-

Wide range of areas covering geology, mineral deposits, exploration, mining and society, mineral processing, mine waste, remediation, CSR and mining education.





Why Focus on Bauxite mining in Guinea

Global Relevance

- 5th largest global bauxite producer
 - Expected to be amongst the top 3 global exporters of bauxite until 2029 (Ecofin, 2019)
- Largest bauxite reserve in the world

Local impact and concerns

- A growing number of activities
- A key source of employment and state revenue
- 175th out of 189 countries in the HDI
- Growing community concerns
- Youth protests
- Environmental challenges
- Pressure on existing infrastructures
- Concerned Guinean national

Research interest







High expectation on bauxite mining companies from the state and local communities

Poumon Economique de la Guinée

- Social
- Economic
- Environmental

Bauxite Mining Operations in Guinea

In 2017 bauxite exported from Guinea included

- 20 MT by the Compagnie des Bauxites de Guinée (CBG)
- 29 MT by the Société Minière de Boké (SMB)

In 2018

- Henan Chine was expected to produce 5 MT of bauxite
- Alufer started exporting bauxite in August 2018
- RUSAL (COBAD) was supposed to begin exporting bauxite in May 2018

Major activities Guinea

 Alumina Company (EGA)is building a 1,1 billion USD mine in Guinea

The Government expects the production of bauxite to increase to 60 million tons by 2020

Other significant projects include those of AMC (Alliance Mining Commodities), CHINALCO, TBEA and EURASIAN, Société des Bauxites de Guinée (SBG), MetalCorp Group, Dynamic Mining International and over ten bauxite mining companies are at different stages in the region of Boke



The United Nations Sustainable Development Goals



Source: United Nations General Assembly. (1987). Report of the world commission on environment and development: Our common future. Oslo, Norway: United Nations General Assembly, Development and International Co-operation: Environment





Sustainable Mining

Sustainable development and sustainable mining should be about ensuring that future generations do not have to pay the prices for what we do today but that they will inherit a space in which they can happily live in and that mining contributes to social, and inclusive growth with young people has a driving force.



The simultaneous pursuit of sustained or enhanced:

- <u>Environmental</u>
 <u>quality</u>
- Economic growth, and
- Social justice

(Eggert 2006; Hilson and Basu, 2003:320; James 1999)





Bauxite Mining-Key Challenges

Lack of socio-economic development apparent everywhere in Guinea

- High reliance on the bauxite mining industry
- Context of high unemployment and poverty
- Environmental impact
- Growing mistrust toward the industry
- Mismatch-Training and employment demand
- Health and Safety
- Youth exclusion and vulnerability

Bauxite mining cannot solve all socioeconomic issues but should mitigate its adverse impact







Impact-One Issue Different Stories



<u>Winners and losers depending on who we speak with-</u> <u>Government, international businesses, local communities, NGOs,</u>

youth, local businesses, expats









Building impact requires building communities' resilience to changing environment created by bauxite mining





Key Capacities: Adaptation, Anticipation, Absorption and Transformation











Improving Impact of Bauxite Mining

- Improving impact should be a priority for all stakeholders
- Negative impact= Increases Instability
- The economic cost of protest is high
- Ensure sustainable mining
- Protects and promote healthy livelihoods
- Maintaining the SLO





Positive impact-How?

- Encourage companies to adopt ASI standards
- ASI standards can :
 - Promote active and reliable stakeholder engagement locally and audit companies on their actions
 - Show best practice examples
 - Promote engagement with local youth
 - Promote multidisciplinary training, exchanges, learning, and collaboration
 - Collaborate with researchers to understand how to improve positive impact and build communities' resilience





"What you do makes a difference and you have to decide what kind of difference you want to make." Jane Goodall

How are we going to promote sustainable mining and positive impact in bauxite mining regions?

a start in a second man

In conclusion

- Building a positive impact is not impossible; it requires a strong commitment from stakeholders coupled with relevant resources
- To promote positive impact, engaging and creating opportunities for young people in bauxite mining areas is critical
- Academic collaboration can help address key gaps and offer a better understanding of opportunities for building positive impact in bauxite mining regions



