

GIADEC Media Engagement – 4th December 2019

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GIADEC Overview

Bauxite has been mined in Ghana since the 1940s. Post-Independence, Kwame Nkrumah had a vision for an integrated aluminium industry in Ghana. Under this vision, Akosombo Dam and VALCO Aluminium Smelter were established. The missing link, however, was a refinery. The development of an integrated aluminium industry in Ghana is a key pillar of President Nana Akufo-Addo's vision of a Ghana Beyond Aid.

The Government of Ghana (GoG) has identified the development and creation of an Integrated Aluminium Industry (IAI) in Ghana as one of the major pillars for transformation of the Ghanaian economy and has classified the bauxite to aluminium value addition as a strategic sector. Pursuant to this objective, Ghana Integrated Aluminium Development Corporation (GIADEC) was established through an Act of Parliament in August 2018. GIADEC's mandate is to promote and develop an Integrated Aluminium Industry in Ghana.

The GIADEC board was inaugurated in March 2019.

GIADEC will assume Government of Ghana's full interests across the value chain in the Integrated Aluminium Industry and will hold a minimum 30% stake in any new mine, refinery or smelter alongside private investors.

There is an ongoing investor engagement process where over 40 companies – both Ghanaian and International (Africa, Americas, Asia Pacific and Europe) expressed interest in bidding to be selected to develop various aspects of the aluminium value chain. The process is ongoing and no new bauxite mining licences have been awarded as at December 2019.

The Integrated Aluminium Project

It is estimated that there are 900 million tonnes of bauxite minerals across three main locations in Ghana:

- Awaso – 60M
- Nyinahin – 700M
- Kyebi – 160M

Verification drilling has just been completed and the results once analysis is complete will be used to confirm Mineral Resource Estimates.

The intention of GIADEC is achieve the following in partnership with selected private investors

- Up to four mining concessions (one in Awaso already in Operation plus up to 3 additional – two in Nyinahin and one in Kyebi)
- Two or three new refineries with a combined capacity of 4-6 million tonnes of alumina (refined bauxite)
- Retrofit of VALCO to increase production capacity to 300,000 metric tonnes of aluminium
- New smelter with production capacity of up to 500,000 metric tonnes of aluminium

It is expected that this will lead to the creation of over 35,000 new jobs (10,000 direct and 25,000 indirect). It is also expected that there will be an annual boost to the economy of about \$10 billion (roughly 15% of country's expected GDP as at end of 2019). The \$10 billion boost will be achieved through mining, refining and smelting (approx. \$2-3 billion) in addition to contributions from the downstream and allied industries.

Global Positioning

With these estimated reserves, Ghana would rank 8th in the world for bauxite reserves. (after China and above India). With expected annual production of 10-20 million tonnes, Ghana would be the 6th largest bauxite producing country in the world.

Current State vs Future State of the Industry

There is currently one operating mine at Awaso, producing approx. 1 million tonnes per annum. All bauxite is currently transported by road to Takoradi port and then exported.

There is no alumina refinery in country, so all alumina required for the VALCO smelter is imported, at present. VALCO is currently producing 60,000 tonnes of aluminium each year, some of which is used within the domestic market and the remainder is exported.

In the future, GIADEC envisages up to four mines producing a combined total of 10-20million tonnes of bauxite a year. The intention is to transport this bauxite by rail to the refinery and for the bauxite to be refined in country. The alumina (refined bauxite) would then be transported to VALCO or a new smelter where aluminium will be produced. Following a retrofit of VALCO, the production capacity is expected to increase to 300,000 metric tonnes and a new smelter would have a capacity of approx. 500,000 metric tonnes.

Infrastructure Development

Development of supporting infrastructure is key to the success of the Integrated Aluminium Industry and GIADEC is working closely with various government agencies, including Ministry of Railways Development, Ministry of Roads & Highways, Ghana Ports & Harbours Authority and Ghana National Gas Company to ensure that development of the required supporting infrastructure happens alongside the development of the aluminium industry. Several engagements have taken place this year, including a 3-day workshop that was opened by the Chief of Staff, Hon. Akosua Frema Osei-Opere and attended by representatives from over 20 government agencies.

Responsible Mining and Community Engagement

GIADEC is committed to the responsible and sustainable development of the aluminium industry. GIADEC is also committed to protecting vegetation, water bodies and wildlife in any forest reserve where mining will be undertaken. There are examples of industry best practice where forest reserves have been mined and successfully rehabilitated and GIADEC will draw upon these examples to ensure minimal impact to the environment and local communities. One example of where bauxite mining has been done in a sustainable manner is the Jarrah Forest in Western Australia.

Some examples of suggested practices for Ghana's Integrated Aluminium Industry include:

- Using strip mining instead of open-pit mining to reduce noise, dust and the mining footprint.
- Restriction of mining near water bodies
- Removal and preservation of topsoil to preserve flora and fauna for later reforestation.

Mining in Atewa forest has been a cause of concern for some CSOs, NGOs and some residents. The mining licence expected to be awarded in Kyebi covers 90m² of the 725m² forest – approx. 12% of the total forest area. Not all of this area will be mined at once and the area is expected to be rehabilitated phase by phase.

GIADEC understands the importance of the role played by Traditional Leaders, local communities and other stakeholders and has begun engaging with them since the company was established earlier this year. GIADEC is developing a robust stakeholder engagement strategy and plan that has started to identify key stakeholders and will address their concerns throughout the project.