ii) Concessional power tariffs to the industry;

iii) Exemption of duty on importation of raw materials especially coal since this is an essential input to the smelting of iron ore;

iv) Tax exemption on transportation of raw materials sourced from within the country; moving iron ore from the deposits to the factory;

v) Capital subsidy to facilitate initial operational costs;

vi) Review of zero tariff rating on wire rods since some companies manufacture them locally; and

vii) Revoking non-performing licenses, in mining areas, held by speculators and assigning these to capable investors after proper assessment of capacity to invest in the industry.

B. Facilitate a comprehensive feasibility study to be carried out for the industry to establish: tonnage of existing iron ore deposits and prospective quality; indications of the impact of the iron ore mining activities on the settlements and other activities in the mining areas once full scale mining takes off; model on how to incorporate the small-scale miners in the production value chain; suitable source of a reducing agent for large scale production and transportation logistics; factors to be addressed by both government and the private sector in order to increase competitiveness in the sector; necessary infrastructure for large scale production; extent of job creation; and cross cutting issues among others.

Conclusion

The iron and steel industry is critical in supporting Uganda's industrialisation drive. Implementation of Vision 2040 is close to 10 years but the industry is yet to be fully developed. With specific actions applied to this sector in a phased manner, and government partnership with the private sector, Uganda's iron and steel industry should be fully developed to enable it support the country's industrialisation and economic development ambition.

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NPA POLICY BRIEF

Planning for Development

NATIONAL PLANNING AUTHORITY *Policy Brief No. 03, Quarter 3: 2017/18*

Fast Tracking the Development of the Iron and Steel Industries in Uganda: A Value Chain Approach

Uganda's Iron and Steel industry paints a picture of contradictions. Firstly, the country has abundant high-quality iron ore deposits, yet its infant steel industry imports all of its raw materials. Secondly, there is high and growing demand for iron and steel products driven by vast infrastructure projects, both in the country and the region, yet this demand has not been exploited to fully develop the industry's value chain. Given these contradictions, the President banned the exportation of unprocessed iron ore in 2011 in order to promote value addition in the iron and steel industry along the entire value chain. However, the main impact to date has been the stoppage of the mining of the iron ore for export. This has only affected the firms that invested in mining and artisanal miners while the steel industry continues to import its raw materials. This brief therefore presents findings of the situational analysis of the iron and steel industry in Uganda, along the entire value chain, and proposes short and medium-term actions that government should take to develop this industry.

Introduction

Despite the existence of economically viable high-grade iron ore deposits in Uganda, they remain unexploited. Uganda has vast iron ore deposits in the Southwestern and Eastern parts of the country, at about 500 million tonnes (Directorate of Geological Survey and Mines (GSMD)). These can last about 400 years at 1 million tonnes iron and steel production capacity per annum. Furthermore, the deposits are among the top-quality iron ores in the world. Nonetheless, the raw materials used to produce iron and steel products in Uganda are imported. The current import bill is about USD 300 million. Given that Uganda is still a developing country, demand for steel products will only continue to grow. This is in addition to the growing potential regional market. These provide great opportunities for the development of Uganda's Iron and Steel industry.

Uganda should learn from history on how to maximize windows of opportunity to develop the Iron and Steel industry. History has it that in the 1940s when the colonial government planned to construct Nalubaale Power Plant, it first set-up a cement factory in Tororo to supply the required cement for the plant construction. Since then, Tororo Cement, has been in operation and has contributed to the growth of the cement industry and economic development in Uganda. Currently, Uganda has a similar opportunity to develop the Iron and Steel industry. The country is undertaking a number of projects that require products whose raw materials exist locally in their natural form. However, the factories to process these raw materials to make final useable products are not yet established. Among these natural raw materials is iron ore whose products are required in the planned and on-going infrastructure projects like; Entebbe Expressway, New Jinja Nile Bridge, Karuma, Isimba and Bujagali dams, Entebbe airport expansion, Kabaale airport, New Karuma bridge, Standard Gauge Railway (SGR), Kiira motor vehicle assembly plant, oil refinery, and oil pipeline among others.

Realizing the significance of the iron and steel industry, Uganda targeted to develop this industry in its Vision 2040 and National Development Plans (NDPs). Vision 2040 emphasizes establishment of economic lifeline industries among which is the iron and steel industry in the first ten (10) years of its implementation. NDPI identified the iron ore industry in Muko Kabale as a key core project. The industry was planned to use iron ore to produce ingots that would supply the steel rolling mills in the country. However, this was never

realized in the NDPI period. Consequently, NDPII earmarks iron ore for exploitation and value addition. However, to date this is yet to be realized.

The ban on exports of unprocessed iron ore has not yet yielded the intended objective of value addition but has instead affected the mining companies, which were already in operation. In order to promote value addition in the iron and steel industry along the entire value chain, The President banned the exportation of unprocessed iron ore in 2011. However, seven (7) years down the road, the objective for the ban has not yet been realized. This has only affected the firms that invested in mining and artisanal miners while the steel industry continues to import its raw materials.

This brief is based on a paper prepared by National Planning Authority (NPA) and Ministry of Energy and Mineral Development (MEMD) on Uganda's situational analysis of the Iron and Steel industry along the entire value chain.

Situation on the Ground

Uganda is under utilizing its installed production capacity and its existing iron ore deposits are unutilized. The country has an annual iron and steel installed production capacity of about 1,000,000 tonnes. Only 50.2 percent (501,700 tonnes) of this is being utilized. Of the total annual iron and steel production of 501,700 tonnes, only about 165,000 tonnes (32.9 percent) are produced from scrap and raw iron ore. This implies that 67.1 percent (485,200 tonnes) of the raw materials (billets and coils) for iron and steel making in Uganda are imported without taking into consideration other inputs like zinc and aluminium among others. Most of the imports are from Asia while scrap is sourced mainly from East Africa.

Uganda's iron and steel products are largely consumed locally. 70 percent of the iron and steel products produced in Uganda are sold locally. The exports are mainly to the East African countries. This indicates that there is still an unexploited export market potential. The employment level and total investment for the whole industry stands at about 5,000 workers and USD 1 billion, respectively.

The failure to develop the second phase of the iron and steel industry value chain has hindered the exploitation of the iron ore. The industries visited were mapped on the iron and steel value chain to evaluate the extent of value addition per industry. Iron and steel are produced from raw iron ore through a number processes, which are summarized using the train analogy (Figure 1). Some of the required information to fully develop each phase, for Uganda's case, is given in the different wagons and, collectively, the wagons represent the value chain of the iron and steel industry. Intriguingly, Uganda's phase II wagon is totally empty.

Developing Uganda's Iron and Steel industry along the entire value chain critically depends on how quickly the country can develop the second phase of the chain (Table 1). Table 1 shows the firms visited and where they lie on the value chain. In phase I of the value chain, out of the 50 licenses issued so far, at least two companies have invested and were operational before the ban. In phase 2 (iron ore smelting), however, no company has invested. This has made the industry to depend on importation of billets and coils. In phase III, two companies (Tembo and Pramukh Steel Ltd) operate and melt scrap to produce their products.

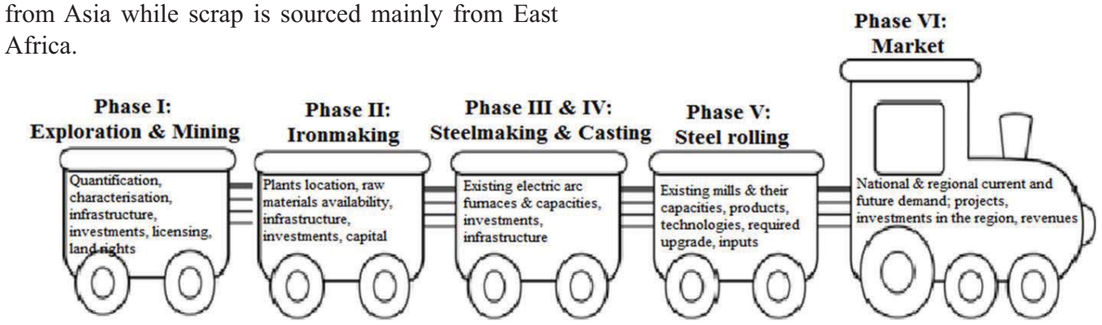

Figure 1: Phases involved in the production process for iron and steel

Table 1: Assessment of existing industries along the iron and steel value chain

Company	Phase						
	I	II	III	IV	V		VI
					1	2	
1. International Mining Company of Uganda	■						
2. WCH	■						
3. Tororo Cement Ltd						■	■
4. Tembo Steel – Iganga			■	■	■	■	■
5. Tembo Steel – Lugazi			■	■	■	■	■
6. Bavima Steel Ltd						■	■
7. Madhvani Steel Ltd					■	■	■
8. MMI Steel Ltd						■	■
9. Pramukh Steel Ltd			■	■	■	■	■
10. Tian Tang Steel					■	■	■
11. Roofings Ltd – Lubowa						■	■
12. Roofings Ltd – Namanve					■	■	■
13. Steel & Tube Ltd					■	■	■
14. Uganda Baati						■	■
15. Viva Steel Ltd						■	■
16. EA Roofings Ltd						■	■
17. Mesha Steel						■	■

These companies have plans in the medium term to extend downstream into phase II. Both have acquired land for the planned direct reduced iron (DRI) plant and Tembo has acquired machinery, and the civil works on the plant have commenced. The rest of the companies are in phase V of the iron and steel production value chain. They import billets and coils which they reheat and roll into various steel products.

Uganda's Iron and Steel industry is also faced by several challenges that are limiting its full potential and maximum utilization of installed capacity. The challenges include:

i) High cost, low quality and unreliability of electricity/power supply;

ii) Limited access to raw materials especially for industries that melt scrap for billet production;

iii) Transport infrastructure challenges especially for industries that import raw materials;

iv) Limited local market and stiff competition from imported products especially on big public infrastructure projects;

v) Unfavourable tax regime especially for manufacturers; and

vi) Unfavourable working conditions

What Needs to Be Done

On top of addressing the challenges identified, the proposed actions are grouped into two: short term and medium to long-term actions.

Short Term Actions

In the short term, developing phase II of the value chain must be fast tracked. This entails incentivizing companies that are in advanced stages of phase II development to fast track their operations for iron ore smelting.

Companies that have already made some investments towards sponge iron production in terms of land purchase, machinery acquisition and plant construction should be targeted. With minimal assistance, these companies can be boosted to fast track their investments in this area.

Medium to Long term actions

A. Government has to introduce an incentive package to attract investments in phase II, as follows;

   i) Corporation tax exemption for an agreed period to facilitate re-investment to expand the industry;