



CTPD'S MONDAY OPINION

This is a weekly column aimed at sharing CTPD's perspective and steering public debate on various issues pertaining to Trade & Investment Law, Public Finance Management, Extractives and Human Development.



TODAYS TOPIC:

**A review of Zambia's Gemstone Mining sector
with Mr Webby Banda**

IN this Monday Opinion, I draw your attention to the topic of Zambia's gemstone mining sector. The motivation of this undertaking resides in the fact that mining public discourse has not done much justice in reviewing its historical background, and status. Firstly, I will give a generic formal introduction to the gemstone mining sector. I will then proceed to give a detailed historical background and its technical status in Zambia.

1.0 Preamble

In simple terms, gemstones can be defined as naturally occurring stones of a variety of colours that are valued by humans for their beauty, hence, the desire for use as jewellery and ornaments. Gemstones as minerals have special characteristics that differentiate them from minerals like copper. In terms of physical characteristics, a gemstone is an attractive mineral that is hard and durable enough to retain its commercial value and is reasonably scarce to make it valuable. These characteristics make gemstones have a perceptual as opposed to intrinsic value in marketplaces. This means that gemstones are traded based on customers' own perception of their merit or desirability to own them, especially in comparison to another competitor. It is for this reason why a gemstone of the same carat, colour, cut and clearness can fetch at two different prices when auctioned by two different individuals of different social-economic backgrounds. It suffices to say that, unlike most minerals, there is no standard or fixed price for gemstones. Prices vary based on colour, carat, clearness, quality of cut and degree of polishing. It is partially due to this reason why it is difficult to generate price projections for gemstones to undertake feasibility studies that culminate in the generation of bankable documents that can be used to secure

loans from money lending institutions. This is exacerbated when mining companies cannot generate resource/reserve statements because of the nature of gemstone occurrence in the sub-surface. It is important to stress the fact that gemstone deposits are small with a highly variable and discontinuous mineralization. For this reason, they are extremely difficult to explore, resulting in exceptionally high geological risks.

2.0 Historical background of Zambia's gemstone mining sector

Gemstones particularly beryl mineralization was first discovered in 1928 in the Kafubu area at a locality that later became known as the Miku mine. The discovery was made possible by the Rhodesia Congo Border Concession Company followed by a Brazilian Company (Rio – Tinto) in 1953. It is important to mention that both these companies failed to locate any deposit and the gemstone remained dormant. However, after a gap of almost fifteen years the Geological Survey of Zambia, between 1967 – 1969, assisted by Nkarulu and Pirala, located several gemstone deposits which became a fortune for the country. During the 1970s, when local miners discovered several more deposits, the Kafubu area became a major producer of good-quality gemstones, particularly emeralds. Due to the significant economic potential and extensive illegal mining, the government established a restricted zone and forcibly removed the population of this sparsely inhabited area. In 1980, a new government-controlled agency, the Reserved Minerals Corporation, took over the major deposits and prospecting rights of the surrounding region. Kagem Mining Ltd. (owned 55% by Reserved Minerals and 45% by Hagura, an Indian-Israeli corporation) was authorized to conduct exploration and mining in the Kafubu area.

3.0 Technical current status of

Zambia's gemstone mining sector

Abundant mineral reserves of copper have overshadowed the exploitation of other minerals (e.g. industrial, energy, precious, fuel, and other base minerals). However, in recent years, gemstones, namely, emerald and amethyst have begun to assume a significant role. Apart from emerald and amethyst the other gemstones found in Zambia include aquamarines, garnets, quartz, agate, rose quartz, amazonite, tourmalines etc. Small-scale mining currently takes place on dozens of claims in the Kafubu area, with mechanized mining activity mostly concentrated on the Kagem, Grizzly (Gemcanton), Chantete, and Kamakanga properties. Most of the deposits in these areas are worked by surface mining. The abundant presence of water during rainy seasons precludes underground mining as a feasible mode of extraction. This is because huge costs will have to be incurred in the dewatering exercise. Under surface mining, the overburdened rock is stripped out using excavators, bulldozers, and large dump trucks. Once mineralisation is exposed, mining is done manually with hammer and chisel, by so-called "chisel men." The recovered gemstones are put into cloth sacks or deposited into padlocked metal boxes ready to be transported to washing plants.

This is it for this week. In the next Monday Opinion, I will discuss some of the challenges of the gemstone mining sector in Zambia and some of the strategies for enhancing its contribution to the economy.

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