Uganda Says It Discovered \$12 Trillion in Massive Gold Deposits

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Uganda announced the discovery of a deposit of 31 million tonnes of gold ore. Critics said that a great deal of gold ore is required to produce a single gram of refined gold and Uganda's mines are estimated to generate about 217 metric tons of refined gold. The addition of 217 metric tons would raise the world's "above-ground" refined gold stock by only about one-tenth of one per cent. The estimated world reserves of gold were about 53,000 tonnes of metal content. The gold reserves are mainly located in Australia (10,000 tonnes), Russia (7500 tonnes), the USA (3000 tonnes), South Africa (2700 tonnes), Peru (2700 tonnes), Indonesia (2600 tonnes), and Brazil (2400 tonnes). The Ugandan government has already licensed the Chinese firm Wagagai Gold Mining Company to start production.

The African country of Uganda is in the limelight again, and this time it is literally shining gold. The country has recently announced the discovery of a deposit of 31 million tonnes of gold ore, with extractable pure gold estimated to gross 320,000 tonnes.

Over the last two years, aerial exploration was done across the country, followed by geophysical and geochemical surveys and analyses, Solomon Muyita, spokesperson for the Ministry of Energy and Mineral Development, told Reuters. The government has expressed its intention to attract big investors to develop the Sector hitherto dominated by small wildcat miners.

We explain what the discovery entails for the global Gold market.

What makes Gold valuable?

Gold is a bright, slightly reddish yellow, dense, soft, malleable and ductile metal in its purest form. It is one of the least reactive chemical elements and is solid under standard conditions. Gold is resistant to corrosion and most acids and has unique properties distinct from other metals.

Another reason gold works well in terms of value is that gold does not readily oxidize. Thus, it maintains a constant weight. Other metals, such as iron rusts and copper, get oxidized. Here gold is rare, has a fairly stable volume and doesn't rust away.

What are the typical uses of gold?

The prime characteristics of being corrosion-resistant and easy -to -work renders gold highly desirable for various purposes, such as decoration. The Industrial demand, especially in the electrical Sector for gold, is mainly due to excellent thermal and electrical properties.

Most of the gold fabricated today goes into the manufacture of jewellery. Still, gold is also an essential industrial metal that performs critical functions in computers, communications equipment, spacecraft, jet aircraft engines, and a host of other products.

Besides, a significant amount is consumed in dentistry and medicine. Continuing research has discovered new applications for gold as a catalyst and in nanotechnology.

Is gold scarce?

Gold often occurs in free elemental (native) form, as nuggets or grains, in rocks, veins, and alluvial deposits. However, gold is not a rare metal. Still, it's difficult and expensive to find and extract the same in large quantities — it is rarely found in concentrations that make extraction economically viable.

Gold explorers conduct geological surveys to support a profitable mining project targeting concentration levels that are 1,000 times higher than normal. It can typically take between 10 and 20 years after a deposit is discovered before a gold mine is ready to produce material that can be refined into bullion.

How is gold mined?

Gold mine exploration is challenging and complex. It requires significant time, financial resources and expertise in many disciplines - e.g. geography, geology, chemistry and engineering.

The likelihood of a discovery leading to a mine being developed is very low — less than 0.1 per cent of prospected sites will lead to a productive mine. And only 10 per cent of global gold deposits contain sufficient gold to justify further development.

The development of the mine is the next stage of the gold mining process, which involves

planning and construction of the mine and associated infrastructure. It generally takes several years, although this varies greatly depending on location.

The gold mining operation stage represents the productive life of a gold mine, during which ore is extracted and processed into gold. Processing gold involves transforming rock and ore into a metallic alloy of substantial purity — known as doré — typically containing between 60-90 per cent gold. Once the gold is purified, it is smelted and pressed into gold bars to be sold in the market.

What is the status of global Gold Reserves?

According to Mineral Commodity Summaries, 2021 by the United States Geological Survey (USGS), the estimated world reserves of gold were about 53,000 tonnes of metal content.

The gold reserves are mainly located in Australia (10,000 tonnes), Russia (7500 tonnes), the USA (3000 tonnes), South Africa (2700 tonnes), Peru (2700 tonnes), Indonesia (2600 tonnes), and Brazil (2400 tonnes).

How is Global Gold supply ensured?

The total world gold supply comes from mining and recycling above-ground gold stocks.

Mine production accounts for the largest part of gold supply - 75 per cent each year. The world mine production of gold was estimated at 3,350 tonnes in 2019 compared to the 3,470 tonnes in the preceding year. The top five leading gold-producing countries were China, Australia, Russia, USA and Canada.

Currently, about 90 countries mine gold, of which there are just seven major players. China has been the largest gold producer in the world, accounting for around 11 per cent of total annual production. But no one region dominates. The other major countries are Australia (10 per cent), Russia (9 per cent), the USA (6 per cent), Canada (5 per cent), Ghana & Peru (4 per cent each) and Mexico & Indonesia (3 per cent each). India's share in the global gold production is less than 0.05 per cent.

As it is virtually indestructible, nearly all of the gold ever mined is theoretically still accessible in one form or another and potentially available for recycling. The majority of recycled gold, about 90 per cent, is extracted from high-value gold jewellery and 10 per cent from industrial gold.

From where demand for gold comes?

Gold is bought worldwide for multiple purposes — as a luxury good, a component in highend electronics, a safe-haven investment, or a portfolio diversifier. It covers jewellery fabrication (~34 per cent), technology and industrial purpose (~7 per cent), investments in financial products like ETFs backed by gold and other physical gold investments (~42 per cent) and those held by central banks (~17 per cent).

Gold demand is geographically diverse, but 72 per cent comes from emerging markets, with China and India representing 50 per cent of all demand. While China accounts for around 28 per cent of the global demand, India's demand accounted for around 22 per cent.

However, as India has little domestic supply of gold, imports primarily satisfy demand. The cost of these imports is partially responsible for today's current account deficit (CAD). Gold supply in India is primarily met through imports, with less than 1 per cent coming from local mining and about 10 per cent from recycling.

So, how Uganda stumbled upon the vast gold reserves?

Over the last two years, the East African country commissioned aerial exploration across the country, followed by geophysical and geochemical surveys and analyses. The gold can be mined with immediate effect. The government now looks forward to attracting gold miners and investors.

The move follows President Yoweri Museveni's government's attempts to ramp up investment in mining to develop resources like copper, iron ore, gold, cobalt, and phosphates.

Most of the deposits were discovered in Karamoja, a parched sprawling area in the country's northeastern corner on the border with Kenya. Large reserves were also found in the country's eastern, central, and western regions. According to the Ugandan government, the value of 31 million tonnes of gold ore stands at \$12.8 trillion.

Are the numbers plausible?

As mentioned, the numbers put out by the Ugandan mining ministry drew some scepticism. A great deal of gold ore is required to produce a single gram of refined gold.

Typically, a high-quality underground gold mine will yield 8 to 10 grams of refined gold per metric ton of gold ore, according to the World Gold Council (WGC), while a marginal quality mine generates 4 to 6 grams per metric ton.

Suppose one settles on a rough average of 7 grams of refined gold per metric ton of gold ore. This means Uganda's mines will generate about 217 metric tons of refined gold, a far cry from the 320,158 metric tons of refined gold that the Ugandan Government told the country's new discovery could produce Reuters. The addition of 217 metric tons would raise the world's "above-ground" refined gold stock by only about one-tenth of one per cent.

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