

# GEMFIELDS



## Gemfields releases research into global emerald and ruby supply and invites collaboration for further 2022 study

LONDON, 10 MARCH 2022

Gemfields, a world-leading miner of responsible coloured gemstones, today launched a report entitled *Global Emerald & Ruby Supply: Analysing Market Data*, with the aim of furthering the understanding of the industry through more transparent and available data relating to international coloured gemstone supply.

This research prompted the following key observations:

1. Data relating to coloured gemstone supply, demand and movement is both hard to come by and unreliable. Further data must be made available to improve this.

2. Available data is skewed, as gemstone values are easily underdeclared at export – with rough gems often sold for prices well below market value. Setting the value of rough gemstones at the time of foreign sale, rather than at the point of export, would remedy this.
3. Analysis of the existing data highlights the alarming extent to which host nations are being robbed of the true value of their coloured gemstone resources: therefore, greater efforts to combat the illicit trade are imperative.
4. While recognising the challenges to data reliability, Kagem is believed to be the world's single largest producing emerald mine.
5. Similarly, Mozambique provides around 40% of the world's production of rubies (in all qualities) and has supplied between 50% and 70% of the yearly stock of faceted quality rubies. There is little data available other than that provided by MRM, and hence there is no certainty of the size of the illicit trade.
6. Gemfields invites other industry players and sources to collaborate, to help improve the strength of this data and work together to compile a subsequent research report in late 2022.

The *Global Emerald & Ruby Supply: Analysing Market Data* report draws on data from a variety of sources – from production and extraction reports to export data. Challenges arise given the distinct lack of available data. The vast majority of coloured gemstones are extracted by artisanal mining, both formal and informal, for which scant reporting standards exist. In addition, coloured gemstones often originate from countries that do not have strong reporting standards. The data that does exist can be inconsistent in terms of gemstone forms – for instance, rough versus cut-and-polished – and units of measurement, with some export and production data presented in terms of quantity (which can be stated in kilograms or carats) and some in value (typically stated in US dollars), but rarely with both weight and value together. This presents a significant issue, as gemstones vary tremendously in value depending upon their quality, which is, in turn, determined by subtle variations in factors such as clarity and colour, as well as by their weight.

The report analyses and overlays the available data sources in order to form an indicative and initial picture. Gemfields is the operator and 75% owner of both the Kagem emerald mine in Zambia (“Kagem”, believed to be the world's single largest producing emerald mine) and the Montepuez ruby mine (“MRM”) in Mozambique (situated on one of the most significant recently discovered ruby deposits in the world). By comparing the available data sources to Gemfields' own production and sales figures (which are made publicly available by the company), it is

immediately clear that there are significant gaps in overall understanding of the coloured gemstone market.

A glaring issue in the coloured gemstone industry is the disparity in the value assigned to a gemstone, particularly in its rough form, especially within (or at the borders of) the producing country. With a 30-million-fold difference between the value of the highest and lowest value products mined at MRM (being USD 600,000 per gram and USD 0.02 per gram), this has profound implications for deposit-hosting nations. Allowing the price to be set at the point of export from the host country inevitably leads to acute under-pricing, given how subjective pricing is. This, in turn, highlights the fact that official export data is likely to seriously understate the true value of the gemstones that leave a deposit-hosting country. Setting the value of rough gemstones at the time of foreign sale, rather than at the point of export from the host country, would remedy this. Gemfields has successfully implemented such a model and the impact is nothing short of revolutionary: balance of payments data published online by the Bank of Mozambique provides a useful “Rubies, Sapphire and Emerald” category, reflecting Mozambique’s combined monetary inflows from these three gems since January 2011. Despite only mining one of the three gemstones (rubies), the commencement in 2009 of a well-documented “ruby rush” in the Montepuez area involving thousands of artisanal and illegal miners, and the ongoing mining efforts of both artisanal and formalised mining operations in the Montepuez area, MRM’s production accounts for 94% of Mozambique’s official monetary inflows of rubies, emeralds and sapphires over the last decade (from January 2011 until June 2021). Prior to MRM’s first auction in June 2014, and since January 2011, when the data commences, cumulative exports of rubies, sapphires and emeralds across all Mozambican producers totals less than USD 1 million. Cash exceeding USD 10,000 must be declared upon entry into Mozambique. The data makes it clear that, with the exception of MRM, Mozambique’s emerald, ruby and sapphire wealth has simply evaporated over the last decade.

The *Global Emerald & Ruby Supply: Analysing Market Data* report overlays the various data sources in order to begin to understand the contribution of Gemfields-owned assets within the global gemstone market. Considering the above challenges, it should be kept in mind that the data collected and used in the report is unfortunately often inconsistent and far from robust. Yet, these are the only data sources readily available for analysis and interpretation. While rather fuzzy, they allow an initial picture to be formed.

We can draw assumptive conclusions that Kagem is believed to be the world’s single largest producing emerald mine from the USGS data, which suggests that Zambia has accounted for more than 70% of global emerald production since 2010 and that Kagem accounts for at least

50% of the total emerald production from Zambia. This suggests that Kagem produces some 35% of the world's emeralds. However, greater verification of the data originating from Colombia would be needed to substantiate this.

Similarly, the data indicates that Mozambique provides around 40% of the world's production volume of rubies (in all qualities) and has supplied between 50% and 70% of yearly facet-quality rubies, and as earlier stated, that MRM's production accounts for 94% of Mozambique's official monetary inflows of rubies, emeralds and sapphires over the last decade (from January 2011 until June 2021). There is little data available for Mozambique other than that provided by MRM, and hence there is no certainty as to the size of the illicit trade. This, in turn, highlights the importance of the industry switching its attention from scrutinising the country-of-origin to instead focussing on the mine-of-origin: this is where consumers can find full transparency in terms of the responsible practices adopted.

This paper should be seen as a first step and a driver to undertake further research in order to build a better picture of global emerald and ruby supply. Inter alia, Gemfields would encourage all coloured gemstone producers to publish their ['G-Factor for Natural Resources'](#) annually.

"What our initial research highlights is how far the coloured gemstone industry still has to go in reaching the level of transparency that end consumers deserve. Without knowing the journey each gemstone has taken, jewellery customers' concerns regarding slavery, smuggling, child labour, tax avoidance and fair pricing at export cannot be allayed. We must seek a means of providing greater transparency. Gemfields has pioneered a more transparent approach and is calling upon others within the sector to help drive this forward." Sean Gilbertson, CEO of Gemfields.

Gemfields wishes to co-author, together with other interested parties, a further research paper by the end of 2022 in order to better understand global emerald, ruby and sapphire supply. Please contact [helena.choudhury@gemfields.com](mailto:helena.choudhury@gemfields.com) should you wish to join the initiative.

- ENDS -

ENQUIRIES

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## NOTES TO EDITORS

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### About Gemfields

Gemfields is a world-leading miner of responsible coloured gemstones. The operator and 75% owner of both the Kagem emerald mine in Zambia (believed to be the world's single largest producing emerald mine) and the Montepuez ruby mine in Mozambique (one of the most significant recently discovered ruby deposits in the world), Gemfields believes that those who mine gemstones should do so with transparency, legitimacy and integrity.

Gemfields introduced the most technologically advanced coloured gemstone sort house in the world at its operation in Mozambique, with state-of-the-art equipment, like optical sorting machines. In addition, a proprietary grading system, a pioneering auction platform and an active marketing presence have all contributed to Gemfields playing a significant role in the rise of African gemstones. Underlying this achievement has been the strong belief that coloured gemstones should create a positive impact for the country and community from which they originate.

Responsible sourcing for Gemfields means implementing industry-leading policies and practices across operations, transparency in its auction sales process, an active role in working groups to modernise the sector, projects to improve health, education and livelihoods for the communities

around its mines and conservation efforts (#conservationgemstones) to protect Africa's great wildlife and biodiversity.

Gemfields Foundation is the charitable arm of Gemfields, through which donors can contribute funding to directly support community and conservation projects in Africa, magnifying the scale of the work already carried out by Gemfields itself.

Fabergé – an iconic name with an exceptional heritage – is a member of the Gemfields Group. This partnership, and the beauty of Fabergé's designs and craftsmanship, improves Gemfields' positioning and brand perception, and helps to raise consumer awareness of responsibly sourced coloured gemstones.

As well as supplying the majority of the world's rough rubies and emeralds, Gemfields initiates activations to build desire for coloured gemstones: for example, collaborations with international jewellery brands and other creative partners. Often surprising, unexpected and unique, these collaborations are chosen to promote consumer awareness and increase the appeal of coloured gemstones, raising their profile, and, in turn, providing greater benefit to their place of origin in Africa.

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