

The gold mining industry in Brazil: a historical overview

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For the past 300 years, Brazil has been one of the most important gold producers worldwide, including the first gold rush of modern history. During the 18th century, an incredible amount of 1,200 tons was extracted with artisanal methods Minas Gerais, Goiás, Bahia, and Mato Grosso provinces. This was by far the largest production of that century of the planet. The country's first industrial mining companies were established from then onwards, mainly of English capital in these provinces. During the last 120 years, industrial mining projects boomed and spread throughout Brazil, culminating in more than 80 mines with a production of around 2,000 tons of gold. New gold-frontier areas were also consolidated in the Amazon region. The diversity of metallogenetic environments for gold deposits (e.g., orogenic, IOCG, Au-PGE, low-sulfidation epithermal, porphyry types, Wits, etc.) and the country's enormous geographic dimension hint at the possibility of great mining developments in the short and medium term.

This work presents an overview of the artisanal and industrial phases of gold mining in Brazil, from the 18th century, reviewing the country's geo-historical and production data, obtained and/or retrieved from several dispersed and restricted sources. These data were analyzed in terms of regional differences, highlighting the contribution of the relevant provinces, listing mines and companies responsible for production over time.

In terms of historical importance for the Quadrilátero Ferrífero-QF region, in the state of Minas Gerais, among the Archean gold deposits, the Morro Velho, Raposos, Cuiabá, São Bento, Lamego, Córrego do Sítio, Pilar and Turmalina mines are the most evident. Two historical Proterozoic deposits are highlighted: Passagem de Mariana and Gongo Sôco. Some of these mines were worked almost uninterruptedly between the 18th and 20th centuries. Note that the QF is a small area (about 10,000 km², when compared Brazil's continental extension, and has historically been responsible for more than 70% of the gold (and iron) ore extracted in the country.

Outside this historic region, the mines of Morro do Ouro and Riacho dos Machados (MG), Crixás and Chapada (GO), Fazenda Brasileiro and Jacobina (BA), Sossego and Salobo (PA), São Vicente, São Francisco e Ernesto/Pau-a-Pique (MT), Tucano and Novo Astro (AP), Piaba (MA) and Tabiporã (PR), are mentioned, with some currently paralyzed.

The potential to discover new deposits via traditional geochemistry cannot be underestimated, given relatively recent discovery of deposits: Mina Tucano (Amapá), Córrego do Sítio-QF, Riacho dos Machados (MG), Almas (Tocantins) and Igarapé Bahia (Pará).

In comparative terms, during the 19th and 20th centuries, the national gold production (industrial + *garimpos*) was practically the same as that obtained during the 18th-century boom. It is somewhat impressive that such production was reached at a time when mining was completely rudimentary, motorized machinery was non-existent, and mercury was not available, much less cyanide. As such, this period could be deemed the “golden age” of gold production in the country.