

# OPTEL's GeoTraceability Solutions

## Change the Game for Artisanal, Small-Scale Miners (ASMs)

### CASE STUDY



Artisanal, Small-Scale Miners (ASM)



Traders and Exporters



Smelters and Refiners

### SUMMARY

The African Great Lakes Region and the Democratic Republic of Congo (DRC) are characterized by an abundance of natural resources, including significant deposits of gold, cobalt, copper, diamonds, tantalum and tin; however, the potential of these resources to effectively contribute to economic growth and sustainable development has remained untapped.

The DRC is plagued by limitations on security, governance, rule of law and economic opportunity, as the nation remains in a fragile state of post-conflict transition. Economic insecurity causes various stakeholders to turn to artisanal mining—as well as illicit activities—to support basic livelihood needs. Although minerals have played a critical role in fueling conflict and instability in the region, artisanal mining remains vital to the DRC's economy, local livelihoods and economic growth in the region.

### CONTEXT

Gold has emerged as the most lucrative conflict mineral because it is easy to smuggle small quantities for large profits. More than \$600 million in gold is estimated to leave Congo annually, and fighting in and around gold mines continues. Cleaning up the trade in conflict gold is essential to finding a lasting solution to the ongoing war. As the largest consumers of gold, jewelry companies need to be part of the solution by proactively partnering with suppliers to source conflict-free gold from the DRC. The USAID-CBRMT project aims to develop an independent, equitable and sustainable system that brings legal, conflict-free and traceable gold from artisanal mine sites in the DRC to international markets.

The Nyamurhale project is located approximately 64 km southwest of Bukavu in South Kivu and managed by La Coopérative Minière et Agricole de Ngweshe (COOMIANGWE). Approximately 230 Congolese miners are active on the site. The USAID-funded pilot project is supporting the cooperative's ability to produce and sell legal, conflict-free artisanal gold from the DRC that is compliant with international standards—including those of the Organisation for Economic Co-operation and Development (OECD) and the London Bullion Market Association (LBMA).



## CHALLENGES

The trading of illegally mined, taxed and smuggled gold has long been a source of funding in the eastern DRC for armed groups and illicit activities. As a result, miners tend to hide their production and smuggle it out of the mine site to avoid (very high) taxation. The project goal is to establish monitoring and traceability systems to reinforce DRC law and OECD guidelines, assess risks and build relationships and investor confidence from mine to market.

## SOLUTION: DUE DILIGENCE, MONITORING AND OPTEL'S GEOTRACEABILITY

In collaboration with the Better Sourcing Program (BSP), which is responsible for due diligence, site monitoring and traceability implementation, OPTEL's GeoTraceability solution was implemented for the Nyamurhale project. Data collection begins at the mine site, where locally trained field agents use the GeoTrace mobile application loaded on a smartphone to track gold from each pit to the point of sale, where it is weighed and placed in secure tamper-proof bags with individual barcodes on which the date, weight, value, location and other relevant data are recorded. BSP field agents then add data such as incidents, income, pricing, socioeconomic indicators and working conditions. This enables downstream stakeholders to view and easily assess risks and improvements in the supply chain. BSP uploads information daily to the GeoT web platform within the mobile application, allowing buyers to access relevant traceability and due diligence information about the source of their gold prior to export.

## CONTACT US

To learn more about OPTEL's traceability solutions, contact us at [optelgroup.com/contact/](https://optelgroup.com/contact/).

## RESULTS

The effort and technologies deployed in this project have resulted in miners needing to register daily when they enter the site, report their daily collection of gold along with production data, and attend weekly meetings with cooperative members. This has also strengthened the cooperative's administrative and financial capacities, as well as safety and mining effectiveness on site. Gold originating from Nyamurhale is now conflict-free and conforms with national and international transparency initiatives as well as OECD due-diligence standards for every part of the supply chain with no requirement for permanent online operation.



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