



# Financial Access Protocol

## GoldFinX Case Study

*A private sector approach to Mercury-Free ASGM Formalization*

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**GoldFinX**  
Western Africa Gold Mining

In collaboration with:

 **planetGOLD**  
Making a world of difference  
in small-scale gold mining.

A GEF Initiative

# Financial Access Protocol

## GoldFinX Case Study

### Table of Contents

Abbreviations	3
Executive Summary	4
Background Relevant to the Intervention	6
Local Industry Environment in Côte d'Ivoire's ASGM Sector	7
Community Engagement and Compensation	8
Partners and Key Stakeholders	9
General Approach and Main Intervention Activities	9
Main Activities and Outputs/Achievements	10
Description of the type of financial mechanism(s) piloted	11
Financial education	10
Performance of the mechanism	16
Sustainability	21
Cross-cutting Issues	22
Gender	22
Local Communities	23
Environmental Issues (beyond mercury) and Climate Change Issues	23
Findings, Observations, Lessons Learned	24
Project Highlights	24
Suitability of Intervention Design	24
Specific Factors for Success	24
(Potential) Factors for Failures	24
Recommendations for Future Interventions	25
Conclusion	25

## Abbreviations

<b>Abbreviations</b>	<b>Definition</b>
ASGM	Artisanal Small-Scale Gold Mining
CFA	Communauté financière d'Afrique (Ivory Coast national currency)
GFX	GoldFinX
USD	United States Dollar

## Executive Summary

GoldFinX embarked on its mission in Côte d'Ivoire with a dual objective: to generate profit and foster positive societal impacts within the artisanal small-scale gold mining (ASGM) sector. The company's initial strategy focused on financing active or soon-to-be-active semi-industrial and artisanal mining permits through direct investments or a lease-to-buy program for essential heavy machinery, including a fleet of five Caterpillar excavators and one backhoe loader. A crucial stipulation was the exclusion of mercury in any part of the mining process, aligning with global environmental standards and health concerns associated with mercury use. Furthermore, the business model hinged on a repayment plan based on a prioritized, yet equitable variable percentage split of the net profits derived from the extraction of gold ore on the authorized permits.

This innovative business model was not limited to Côte d'Ivoire; GoldFinX aimed to replicate its approach in several countries, including Tanzania, Bolivia, Colombia, and Malaysia. However, the outbreak of the COVID-19 pandemic in 2020 posed significant supply chain challenges, prompting the company to concentrate all its capital and efforts exclusively on its operations in Côte d'Ivoire.

GoldFinX's journey in the ASGM sector truly began with high hopes and a clear vision, aiming to blend financial gain with meaningful social impact in Côte d'Ivoire. The first investment relationship with a prominent local figure was supposed to be a cornerstone of this vision, embodying the company's strategic approach to investing, supervising, and consulting, without directly engaging in operations. This collaboration, however, **unfolded into a saga of unforeseen challenges**, serving as both a cautionary tale and a transformative catalyst for GoldFinX.

The financial arrangement with the first partner, earmarked by an investment totaling **USD 2.4 million** quickly spiraled into a disaster. The fallout was significant, with GoldFinX recouping a fraction of its investment— about 90% of the physical equipment that had been financed and approximately 750g of gold, leaving a staggering deficit of over USD 1 million and more than 7 kg of gold (approximately USD 405,000 at the time). This unfortunate venture into partnership exposed GoldFinX to the harsh realities of local business incompetence, poor decision-making, and outright fraud within the sector.



*GoldFinX machinery and equipment investments; (left) excavator in action and (right) is a trommel wash plant intended for small batch testing (10 tonnes/hour)*

Faced with this predicament, GoldFinX was compelled to introspect and recalibrate its operational ethos. The costly lesson imparted by the first partnership necessitated a strategic pivot from a passive investment role **to an active operator** within the mining sector. This reinvention was not just a reaction to adversity but a proactive step towards seizing control over its investments and directly influencing the outcomes of its engagements in the ASGM sector.

Given the learnings, GoldFinX has since turned things around and operated three mining sites, one of which is currently in the exploratory stage. Since the business model pivot, GFX has **successfully extracted 46.5kg of 23k gold**, paid out over USD 130,000 (80 000 000 CFA) in direct bonuses to employees and ultimately helped benefit the surrounding communities on its operating sites.

This narrative of resilience and adaptation sets the stage for the ensuing chapters of GoldFinX's journey. As the company transitioned to an operational role, it not only salvaged its financial prospects but also began to carve out a niche for itself as a positive force in the ASGM community. The establishment of its charity, Heart of Mine (Coeur de Mine locally), symbolizes the company's commitment to the welfare of the mining communities, underscoring its dual mission of profitability and social responsibility. The case study will further delve into how GoldFinX, through its operational successes and philanthropic endeavors, has made a lasting impact on the ASGM sector in Côte d'Ivoire, transforming challenges into opportunities for growth and positive change.

The company's operational arm is currently run in Côte d'Ivoire by two Canadians, **JW Dumont** and **François Dumont**.

## Background Relevant to the Intervention

Over the last decade, the Artisanal Small-Scale Gold Mining (ASGM) sector in Côte d'Ivoire has faced a myriad of challenges, profoundly impacting the financial stability, environmental sustainability, and legal standing of this community. Côte d'Ivoire's artisanal and small-scale gold mining (ASGM) sector produces over 17 tonnes of gold annually, supporting over 500,000 miners, nearly 80% of whom enter legally from neighboring countries to mine informally, some from as far away as Cameroon.<sup>1</sup> Despite contributing significantly to the national economy and the livelihoods of many Ivorians, the sector has struggled with systemic issues that have hindered its growth and development.

Access to financing has been a critical hurdle for ASGM operations in Côte d'Ivoire. Traditional banking and financial institutions have often been reluctant to extend credit to artisanal miners, citing the high risks associated with informal mining operations. This leaves permit holders in a precarious position, often forcing them to choose between utilizing their wealth or navigating the murky waters of non-traditional financing options. Unfortunately, many of these alternative routes are predatory, offering funds at exorbitant rates or under exploitative conditions. These factors have compelled many miners to operate on a subsistence level, with little opportunity for growth or investment in safer, more efficient mining technologies.

The widespread use of mercury in gold processing also remains a pressing concern. Due to limited awareness and education on the chemical's environmental and health risks and its perceived efficiency in gold processing, its use remains rampant among artisanal miners. This practice not only endangers the health of the miners and surrounding communities but also poses significant environmental risks, contaminating local waterways and ecosystems.

The legality of ASGM operations has been a contentious issue, with many artisanal miners operating without proper licenses or permits. The fear of enforcement actions by the mining code enforcement taskforce, tasked with eliminating illegal mining activities, has led to a pervasive sense of insecurity within the ASGM community. These

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<sup>1</sup> Global Environmental Facility (2024) *Côte d'Ivoire takes action to combat mercury use in Artisanal and Small-Scale Gold Mining* (unep.org). Available at: <https://www.unep.org/gef/news-and-stories/press-release/cote-divoire-takes-action-combat-mercury-use-artisanal-and-small>

miners live day-to-day under the constant threat of being discovered and penalized, further exacerbating the sector's challenges.

### Local Industry Environment in Côte d'Ivoire's ASGM Sector

In Côte d'Ivoire, the artisanal and small-scale gold mining (ASGM) sector operates under two main permit categories: artisanal and semi-industrial, each with distinct regulations, operational scopes, and environmental impact considerations.

#### Artisanal Permits:

- Size and application: Limited to 25 hectares or under, applied for exclusively by Ivorian individuals, not businesses.
- Machinery restrictions: Usage of heavy machinery is prohibited. Equipment allowed includes water pumps, sluices, small generators, and handheld electric power tools.
- Capital Intensity: Requires a full application to the Mining Department, excluding a governmental environmental impact study. Costs hover around the low single-digit millions of CFA range (USD 3,000) and are still incredibly cost prohibitive to the average Ivorian citizen.

#### Semi-Industrial Permits:

- Size and business requirements: Ranges from 25.01 to 100 hectares and must be applied for by an Ivorian registered business with majority Ivorian ownership.
- Machinery and equipment: Permits the use of traditional heavy machinery and includes equipment suited to the type of gold deposit, like wash plants, winches, ore separation technologies, and more.
- Capital Intensity: Involves a significant initial capital investment, including an expensive environmental impact assessment by a specialized company. The costs for the permit vary widely, from 8-9 million CFA to over 20 million CFA (USD 14,000 - 50,000).

## Community Engagement and Compensation

Both previously mentioned permit types necessitate a consultation with local landowners and communities affected by the potential future mining operations. The outcome is a 'Protocol d'Accord,' [Contractual Agreement] established in the presence of regional authorities, outlining indemnities for crop destruction and negotiated monthly payments or a percentage of gold extracted, which benefits local community cooperatives and development funds.

Recognizing the concentration of permit ownership among a wealthy minority, the Ivorian government has implemented a decree limiting individuals and businesses to two or three active applications. This measure, aimed at democratizing access to mining opportunities, seemingly only applies to applications submitted after 2022; those filed earlier are exempt. Despite these restrictions, some have sought workarounds, such as establishing multiple businesses for semi-industrial permit applications. However, the government's proactive stance in recent years is a commendable effort to regulate the sector more equitably and sustainably.

This challenging financing landscape underscores the necessity for innovative solutions and reforms to support the growth and sustainability of ASGM operations in Côte d'Ivoire, fostering a more inclusive and fairer economic environment for all stakeholders involved.

Environmental degradation and social issues have also been notable. Deforestation, soil erosion, and water contamination are common, affecting agriculture, wildlife, and human health. Socially, the sector faces problems related to child labor, exploitation of workers, and gender disparities, with women and children being particularly vulnerable to the negative impacts of ASGM.

These conditions have created a complex landscape for ASGM in Côte d'Ivoire, marked by significant challenges and opportunities for improvement and transformation. Organizations like GoldFinX, which aim to address these issues through innovative financial models, mercury-free mining techniques, and community engagement, represent a critical step towards a more sustainable and equitable ASGM sector.



## Partners and Key Stakeholders

Beyond just its commercial activities, GoldFinX has cultivated strong partnerships with key stakeholders in Côte d'Ivoire's mining and finance sectors. The company maintains business and financial connections with major banks such as Ecobank, Banque Atlantique, and Bank of Africa and actively engages with government officials from the mining and environmental departments regarding existing operations and upcoming projects.

Additionally, GoldFinX – outside of the scope of the financial model discussed in this case study – has established relationships within the NGO community, particularly with Prokids and Bii, collaborating on various initiatives, including a significant event in December 2023 for Christmas that provided gifts to 500 children.

## General Approach and Main Intervention Activities

GoldFinX's intervention in the ASGM sector in Côte d'Ivoire represents a multifaceted approach aimed at transforming the traditional artisanal small-scale mining operations into a more sustainable, profitable, and environmentally friendly model. This comprehensive strategy encompasses various components, including full operational control, financial inclusion, technological innovation, and social responsibility.

GFX prioritizes collaboration with trustworthy local individuals for artisanal mining permits/demands or local businesses in semi-industrial licenses/demands cases. The cornerstone of these collaborations is an operational agreement signed with the permit or demand owner. This agreement outlines the terms, including the profit-sharing percentage or royalty paid to the permit owner, setting a clear legal and financial framework for the partnership. GoldFinX has engaged in collaborations with entities holding active licenses who needed operational expertise or financial backing to commence operations, as well as providing comprehensive support for entirely new permit applications from their inception through to activation. In its infancy, GFX would seek out potential business partners/permit owners, but over the years, it has now been the permit owners who approach GoldFinX in the hopes of signing an operational agreement.

GoldFinX so far has had three operational sites in Cote d'Ivoire that are structured in accordance with its new operational business model. These mining sites were in Dabakala, Bouafle, and Djekanou.

## Main Activities and Outputs/Achievements

GoldFinX's intervention in the Artisanal Small-Scale Gold Mining (ASGM) sector of Côte d'Ivoire marks a significant departure from traditional financing and operational models, introducing a comprehensive suite of activities aimed at transforming the landscape of ASGM financing. This section outlines the key activities undertaken and the achievements realized through these initiatives.

### Financial education

Efforts to sensitize financial sector actors to the nuances of ASGM and its financing opportunities were expansive. Engagements included workshops with various stakeholders, including local banks and microfinance institutions (Ecobank, Banque Atlantique). These informal sessions aimed to demystify ASGM operations, highlighting the sector's viability and potential for sustainable financing. Training materials developed for these sessions focused on risk management, sustainable mining practices, and the economic potential of ASGM, designed to foster a more inclusive approach to financing within the financial sector.



*Djekanou ASGM Workshop organized and led by GoldFinX/Heart of Mine (Coeur de Mine), 2021*

Parallel to engaging the financial sector, GoldFinX - on an ongoing basis - provides support for its mining employees, focusing on financial literacy, business planning, and sustainable mining practices. These highly informal training sessions, tailored to the miners' needs and contexts, included both male and female participants (supported through GFX's foundation *Heart of Mine*), with a conscious effort to ensure gender inclusivity. The goal was to empower miners with the knowledge to manage their finances more effectively and engage with financial institutions confidently in the future.

## Description of the type of financial mechanism(s) piloted

In 2019, GFX raised close to five million euros through a private Initial Coin Offering (ICO)<sup>2</sup>. This source of capital raised through the sale of its cryptocurrency provided ample resources to kick-start its business activities in Cote d'Ivoire. The initial business model focused on financing equipment and other general costs related to acquiring mining rights for local companies and individuals and prioritized reimbursements for the financing without negatively impacting the local company's or individual's monthly cash flow, structured as a 20% lifetime royalty on production after full payback. GFX's first attempt at implementing this business model proved to be a costly lesson in the realities of investing in ASGM.

Very quickly, GoldFinX pivoted to becoming the mining operator itself. Consisting of a low-turnover team of local employees working for GFX as general labor, heavy machinery operators, site supervisors, area supervisors and geologists - the concept has so far proven efficient and profitable.

The financial mechanism detailed in this case study can best be described as a hybrid of full employment and profit sharing with local miners.

## Selection and Financing Methodology

Before delving into the operational methodology that defines GoldFinX's (GFX) presence in the ASGM sector, it is crucial to understand the meticulous process through which GFX selects its mining partners and its methodology in financing these operations. The approach is rooted in establishing trust and ensuring the sustainability and legality of the operations it chooses to support.

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<sup>2</sup>An initial coin offering (ICO) is the cryptocurrency industry's equivalent of an initial public offering (IPO). A company seeking to raise money to create a new blockchain app or service with a cryptocurrency can launch an ICO as a way to raise funds.

## Exploration Methodology

For GFX, selecting where to start operating involves a combination of leveraging past experiences, observations from potential informal operations on-site, and applying traditional exploration techniques. These techniques include:

- Utilizing public geological, hydrographic and satellite maps & imagery.
- Remote Sensing: Utilizing drone photogrammetry<sup>3</sup> to gather detailed imagery and data from potential mining sites.
- Soil Geochemical Analysis: Conducting comprehensive soil tests to identify mineralized zones.
- Geophysical Studies: Partnering with local companies to fund geophysical studies, enhancing the precision of exploration efforts.

## Alluvial and Hard Rock Mining Exploration

For **alluvial operations**, the focus is on identifying eroded mineralized structures where placer or loose gold has been deposited, particularly in riverbeds. Due to the nature of the reserves, this process is generally more straightforward.

In contrast, exploring **hard rock or vein mining sites** demands a more extensive array of traditional research methods. GFX employs techniques such as Induced Polarization (IP) surveys<sup>4</sup>, trenching, and digging exploratory shafts based on collected geochemical and geophysical data. While drilling has previously been considered prohibitively expensive for ASGM operations, GFX will soon be exploring the use of smaller, man-portable drilling rigs as a cost-effective alternative for deeper and more precise exploration.

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<sup>3</sup>**Photogrammetry** is the science and technology of obtaining reliable information about physical objects and the environment through the process of recording, measuring and interpreting photographic images and patterns of electromagnetic radiant imagery and other phenomena.

<sup>4</sup> **Induced Polarization (IP) Survey** is a geophysical imaging technique used extensively in mineral exploration and mining operations to identify the electrical chargeability of subsurface materials, such as ore.



*Early construction of the eventual hard rock crushing and sluicing circuit on GFX's current site, November 2023.*

This selection and financing methodology ensures the viability and legal conformity of the operations GFX engages with and underscores the company's commitment to responsible and sustainable mining practices. By establishing a solid foundation of trust and scientific exploration, GFX paves the way for operational excellence characterizing its ASGM sector interventions.



*Aerial drone photography of a neighboring permit in Niakara, 2021.*

## Operational Control and Professionalization

GoldFinX assumes direct operational control over the mine sites, introducing professional management and skilled personnel, such as mining supervisors/site managers and heavy equipment operators. This move is crucial for enhancing the miners' capacity and professionalizing the mine operations. By centralizing the gold extraction process, GoldFinX ensures quality control, capturing the concentrate daily and processing it in its dedicated gold room to achieve a final product, usually above 23 carats.

The central 'gold room' at GFX HQ is in two parts, the first is outfitted in a locked 40-foot shipping container and consists of a custom-built vibrating concentrate classifier, a stacked Gold Cube sluice box, an icon i150 centrifugal concentrator, an RP-4 Shaker Table and a proprietary 'pulsed air' device created by GFX to help eliminate the lighter non-ferrous impurities before smelting. The second part of the gold room is in an attached room at the headquarters and consists of two different furnaces (induction and propane) and the environmentally friendly chemicals used in the flux. This meticulous approach guarantees higher yield and quality, significantly increasing the market value of the gold extracted.



*GoldFinX propane gold smelting furnace (left), 40' shipping container workbench in the gold room (right).*

## Financial Inclusion and Employee Welfare

A cornerstone of GoldFinX's model is the significant improvement in the financial and social welfare of the miners. By paying employees over double the average wage of a small-scale miner, GoldFinX not only elevates the standard of living for these individuals but also sets a new benchmark for labor compensation in the sector. This strategy has empowered some employees to initiate their own small-scale operations, fostering entrepreneurship within the community. Unsurprisingly, GFX has seen a reduction in informal mining around its active operational mining sites due to the draw of the GFX offer. Higher wages and ultimate formalization of once-informal mining operations has proved to be attractive to local small-scale miners.

Job	Country Avg.	GFX Wages	Diff.
<b>General Labor</b>	75,000-100,000 CFA/month \$120-\$160/month	150k-200k CFA/month <b>\$240-\$320/month</b>	<b>+100%</b>
<b>Heavy Machinery Operator</b>	400,000 CFA/month \$650/month	600,000 CFA/month <b>\$1,000/month</b>	<b>+50%</b>
<b>Site Supervisor</b>	600,000 CFA/month \$1,000/month	1,000,000 CFA/month <b>\$1,600/month</b>	<b>+67%<sup>5</sup></b>

*Wage differences between sector average and GoldFinX miner salaries.*

## Technological Innovation in Processing

GoldFinX employs advanced gravimetric processing techniques for both alluvial and vein/underground operations, abstaining from the use of harmful chemicals like mercury. This method, coupled with the utilization of on-site generators, water pumps, and gravitational sluices, epitomizes the company's commitment to environmental sustainability and efficiency. Looking ahead, GoldFinX plans to incorporate safe and supervised chemical leaching for vein operations, promising even more efficient and profitable gold processing.

## Financial Models and Production Sharing

The company's financial model is designed to maximize inclusivity and profitability. Miners are hired at well-above-market rates, with additional bonuses based on revenue from gold sales. This model foregoes traditional production sharing at the mine

<sup>5</sup> FX rate: 600 CFA = \$1 USD

site, opting instead for a bonus system that rewards productivity and aligns the miners' interests with the company's success. The bonuses are based on net production goals set at the beginning of the month - meaning the monthly bonus that the employees receive changes monthly. The production goals are set by GFX management, geologists and the site supervisor - always with the understanding of what that site's ore body looks like and what could be achieved with hard work and a little luck. This is communicated at the beginning of the month in a monthly 'all-hands' meeting done on-site.

### Security Measures and Monitoring

To address the risk of theft, GoldFinX has implemented stringent security measures, including geotagging and using airtight and locked containers for transporting concentrates. Regular updates and photographic evidence of the gold concentrates and processed gold are shared via WhatsApp and logged on GFX's proprietary supply chain management system, ensuring transparency and accountability throughout the supply chain. Every doré bar sold locally to licensed gold traders/aggregators usually hovers around an average of 23K purity (95.8%). The company currently has no short-term plan for exporting the mined gold (except in the case of a potential physical gold financing deal) due in part to the hefty fees associated with the export of doré bars produced within the ASGM framework in the country.

### Performance of the mechanism

GoldFinX has seen great results and financial returns from its initiatives. Despite some very costly - **and crucial** - lessons learned, GFX is now in a great position to continue growing organically, increasing both revenues and team size over the coming years.



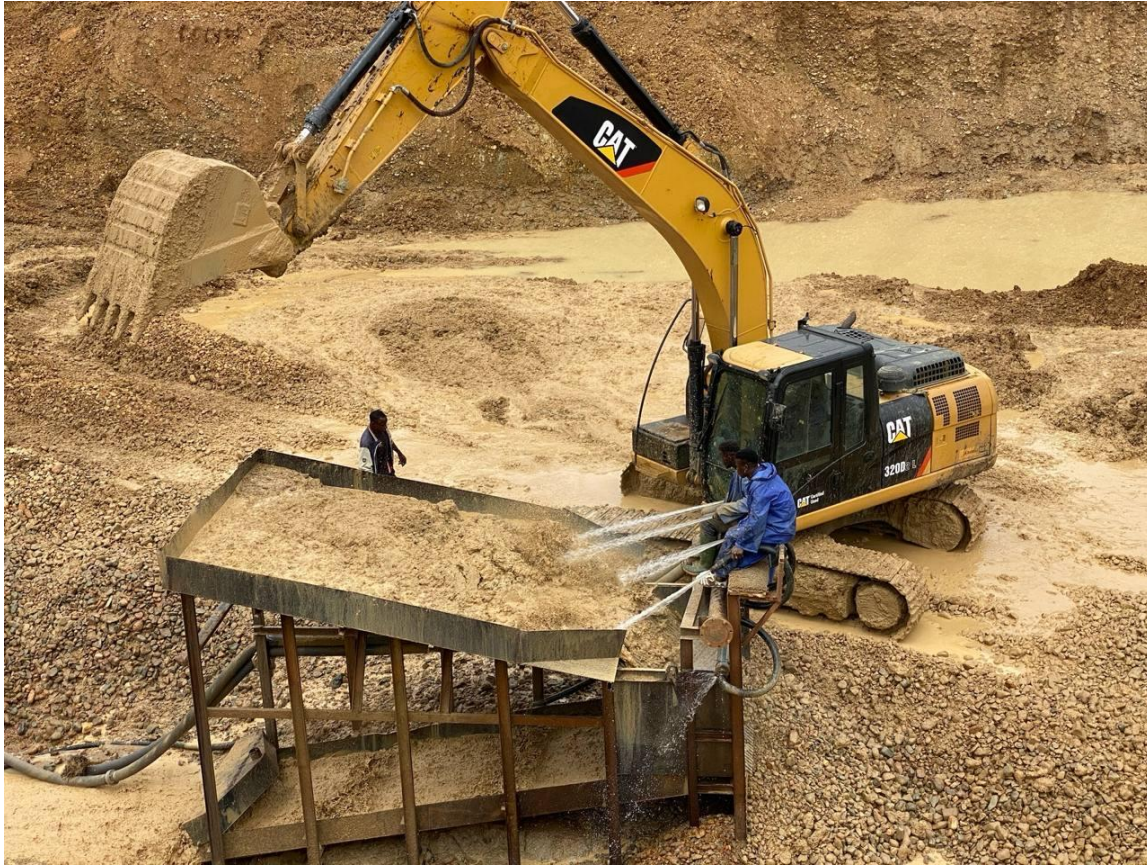
*Various pictures of GFX's smelted gold dorés (2021-2023)*



### 1. **Niakaramandougou site**, Alluvial Gold Mining (Sep 2021 – June 2022)

This is the first site GoldFinX operated within its current business model. The company hired local geologists (one of which was promoted to GFX country manager in 2023), site supervisors, excavator drivers and general labor employees. Approximately 80% of this original workforce is still with GoldFinX today (April 2024). GFX partnered with an active permit owner who didn't have the necessary capital to operate. The contractual agreement was an 80/20 split of net profits. Bonuses for employees were taken out of GFX's 80% share of profits.

- Many costly lessons were learned, such as (but not limited to):
  - **Equipment maintenance** is one of the most important factors; training materials and maintenance schedules were quickly implemented to avoid costly breaks and wear on the machinery due to inconsistent maintenance.
  - **A good relationship with the local villages and communities** can help avoid potential misunderstandings or petty disagreements.
  - **Communication truly is the key.** The company ended up installing a 50-foot-high GSM antenna booster to ensure management could always communicate with the site. (A practice the company has adopted at every site thereafter)
- Total length of time spent on this permit: **10 months** (Sep 2021 – June 2022)
- Total net gold production: **19kg (~600 oz)**
- Total bonuses paid out to the miners (on top of their salaries): 40,000,000 CFA (**\$65,000**)
  - Average of 17 monthly general labor employees shared 16,800,000 CFA
    - i) On average, general labor employees received 950 000 CFA (USD 1,500) in total bonuses over the 10 month operation. (+ 95 000 CFA per month) (USD 150)
  - 5 heavy equipment operators received a total of 13,000,000 CFA (USD 21,000)
  - 2 supervisors shared 10,200,000 CFA (USD 16,500)
  - Most of the profits from this operation went into purchasing new equipment and repairing many broken items such as four/six-cylinder water & slurry pumps, basic wash plants, etc.



*Alluvial gold excavation and initial sluicing to concentrate the gold at Niakaramandougou in Spring 2022.*

2. **Dabakala site**, AESI – Alluvial & Hard Rock Gold Mining (July 2022 – July 2023)  
 GFX again partnered with a permit demand owner. The company financed the completion of the environmental impact study and helped the owner complete the full application. The verbal agreement was a 50/50 split of net profits. Bonuses for employees were taken out of GFX's 50% share of profits.

- GoldFinX's first foray into hard rock mining. Exploration and staging using the following techniques took about 2.5 months.
  - IP Survey (Induced Polarization survey)
  - Soil Geochem (outside of known alluvial deposits)
  - Exploratory shafts
- Over the ensuing eight months, the ancient alluvial riverbed proved to be a high-value asset. The company averaged 2.5kg per month from the alluvial operations.

- Hard rock operations proved to be more difficult without special permission from the Mining Department to use explosives. Once obtained by the permit owner and after much trial and error - the hard rock portion of the permit generated 1.75kg per month for three months.
  - The permit owner with whom GFX had a deal kept changing the terms every month. In July 2023, **the deal had morphed into something unrecognizable from the original agreement**—the decision to leave and find a new operating site was taken.
    - What started as a traditional 50/50 split after operational expenses morphed into something completely unrecognizable from the original agreement. Certain big line-item costs, such as salaries and maintenance were no longer being accepted as previously agreed-upon pre-split deductions. Faced with no legal recourse outside of a handshake deal, GFX had no choice but to pack up its assets and look for a new site to operate even if a good amount of gold ore was still available.
  - Total length of time spent on this permit: **12 months**
  - Total net gold production: **27.5kg (~880 oz)**
    - 20kg from the alluvial portion
    - 7.5 kg from the hard rock portion
  - Total bonuses paid out to the miners (on top of their salaries): 47,500,000 CFA (**\$77,500**)
    - Average of 20 monthly general labor employees shared 20,500,000 CFA (USD 33,000)
      - i) On average, general labor employees received 1 025 000 CFA (USD 1,600) in total bonuses over the 12-month operation. (+ 85 000 CFA per month)
    - 6 heavy equipment operators received a total of 19,000,000 CFA (USD 30,000)
    - 2 supervisors shared 8,000,000 CFA (USD 13,000)
3. **Djekanou site**, Hard Rock Gold Mining (Sep 2023 - ongoing)
- GFX's current operations in a widely sought-after zone known for its rich quartz veins.
    - i) IP Survey completed Feb 2024.
    - ii) Soil Geochem completed March 2024.

- September to December was spent exploring using the methods described above, leveraging local area knowledge. Since March 2024, five shafts have been excavated, and the workers are currently descending towards suspected reserves.
- Despite no extraction work to be done outside of a smaller team dedicated to exploration, GFX decided to keep paying employees 75% of their operating salary during the downtime between operations. Although an expensive decision, GFX made this decision to provide a sense of stability for the miners who were used to the traditional week-to-week subsistence lifestyle.
- Based on qualitative information gained through discussions with surrounding permit owners as well as many months of testing & assays, GFX expects monthly production to comfortably sit above 4 kg net gold per month.



*GoldFinX Founders, management and employees at a site visit in 2022.*

## Sustainability

The long-term sustainability of this project is wholly dependent on GoldFinX's ability to stay profitable and continue growing. The company is currently expecting to triple total yearly revenues by 2027 through organic growth – aided largely in part by its efforts to develop future operational sites in parallel to its ongoing operations. GFX currently has multiple agreements with permit owners holding multiple permits and two different Memorandum of Understanding documents outlining future operational partnerships once the company completes its new capital raise.

The company is also currently in the beginning stages of raising additional capital through creative programs such as a micro-royalty/micro-streaming<sup>6</sup> deal with investors as well as through traditional equity raises. GFX has its sights set on an eventual public listing on the TSX Venture Exchange<sup>7</sup> to bring its business model to more countries with a heavy ASM presence.

As far as the sustainability of the current business model within the current operating paradigm, GFX currently maintains a good working relationship with the necessary governing bodies such as the SODEMI (Societe pour le Développement Minier de la Côte d'Ivoire), the Mining Department, the Environment department, the BRICM (Brigade de Répression des Infractions au Code Minier) and professional permit owners throughout the country, facilitating government backing in its interventions.

It has been a challenging journey over the last four years, but the company is highly optimistic about its current growth trajectory both on the business and charity end.

### ASM Impact long-term plans

One of GoldFinX's long-term strategies aims to enhance artisanal small-scale mining (ASM) by initially funding and establishing laboratories and gold rooms on sites managed by other operators. This critical step improves quality control and production efficiency, setting a foundation for professional and sustainable mining practices. The strategy is supported by the ambition to back female-owned cooperatives to operate these facilities, promoting gender inclusivity and economic empowerment. These cooperatives would serve as centralized hubs for processing gold, from concentrate to

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<sup>6</sup> [Sandstorm Gold Royalties | How a Gold Royalty Works](#)

<sup>7</sup> TSX Venture Exchange is a **stock exchange in Calgary, Alberta, Canada** that was originally called the Canadian Venture Exchange (CDNX).

refined product, playing a key role in formalizing ASM activities and strengthening their legal frameworks. This approach seeks financial viability and aims to develop a sustainable and replicable model, potentially transforming ASM practices across multiple regions.

## Cross-cutting Issues

### Gender

GoldFinX's intervention in the ASGM sector has benefited a woman through the permit application process. The company got an opportunity to partner with a young woman demonstrating an entrepreneurial spirit and willingness to hold her own artisanal mining permits in the Bouaflé region. As of June 2024, GFX has financed four individual artisanal permits in the geographical zone, amounting to an investment of USD 10,000. The company expects at least one of the permits to be active by late summer 2024.

This occurrence sheds light on a broader industry issue: women's prevalent role as 'concentrate purifiers,' a task fraught with hazards due to the use of mercury. Recognizing the dangers this poses to women, who are integral to the processing phase, GoldFinX's shift to mercury-free technologies inadvertently prioritizes their health and safety while also eliminating potential base-level jobs usually reserved for women. This transition not only mitigates the risks associated with mercury exposure but also underscores the need for deliberate measures to ensure women's roles in mining evolve alongside technological advancements, fostering safer and more equitable participation in the sector.

Another initiative undertaken by GFX and its charity **Heart of Mine** has provided training in other 'livelihood' options for young women (often single mothers) looking to leave the world of mining and mercury contamination. So far, the company and the charity have fully financed two semesters of sewing schools for 28 young women. Approximately 80% of the cohort has since found full-time stable work in the textile/manufacturing industry. The charity expects to have enough funding to start a cacao manufacturing (transformation) class program for a new group of young women miners looking for alternatives to artisanal mining. The program is expected to debut in September 2024.

## Local Communities

GFX tries to improve the local communities by leaving something of value, like building a well or guiding local landowners on land rehabilitation after the completion of mining operations. Since the start of the 'GFX as a mining operator' model, the company has:

- Donated its drinking water pumps and generators to the local villages after the end of site operations.
- Given \$3,250 per month to the village community fund of the Niakaramandougou site during every month of operation towards the construction of a local medical clinic.
- Participated and funded multiple animal sacrifices led by the local villages of the mining site in accordance with their customs and traditions.
- Always prioritized the hiring of local village "Dozos" (registered carriers of firearms) as site security for the entirety of the mining permit's operational life.
- Prioritized hiring local general labor to compliment the already strong core team. These new additions to the team have often followed GFX to its next operation.

## Environmental Issues (beyond mercury) and Climate Change Issues

Outside the no-mercury rule GFX employs, post-operational site rehabilitation is very important. The company makes sure to segregate funds during the operation to be able to restore the operational surface area to an acceptable state for future replanting of crops and/or replanting of trees, as required by national regulations.<sup>8</sup>

The company is also in the early stages of market researching potential plantations and fungus (not necessarily agricultural) that can act as a de facto 'mercury remover' to help rid the soils of mercury contamination in the surrounding mining sites that don't share GFX's operational ethos of mercury-free gold processing.<sup>9</sup>

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<sup>8</sup> A lot of individuals opt to pay the fines imposed by the authorities for failure to comply with the mining code, as they are cheaper than the cost of rehabilitation. Site rehabilitation is also very difficult when there is already mercury contamination of the soils from previous informal operators.

<sup>9</sup> More information available at: [Bioremediation of mercury-polluted soil and water by the plant symbiotic fungus \*Metarhizium robertsii\* | PNAS](#)

## Findings, Observations, Lessons Learned

GoldFinX's journey highlights innovative mining practices, challenges and the transformative potential of the sector in achieving sustainable and equitable growth within the sector.

### Project Highlights

GoldFinX's endeavors have significantly impacted the ASGM sector in Côte d'Ivoire, producing **46.5kg of 23k gold** and distributing approximately **USD 130,000** (80,000,000 CFA) in direct bonuses to employees. This success is part of a broader strategy to transform mining practices and ensure sustainable community benefits. Notably, their charity, Heart of Mine (*Coeur de Mine*), has been actively involved in community enhancement projects, including significant contributions towards local healthcare and education, demonstrating a commitment to both economic and social upliftment.

### Suitability of Intervention Design

The intervention design has proven effective, particularly in establishing a framework supporting profitable community projects. The strategic implementation of operational controls and environmental safeguards aligns well with the intended outcomes of improving mining practices and enhancing worker welfare.

### Specific Factors for Success

Successful factors include strong on-site management, which is crucial in maintaining operational standards and meeting project goals. Additionally, GoldFinX's investment in training local supervisors and maintaining efficient heavy machinery has promoted operational efficiency and longevity.

### (Potential) Factors for Failures

Challenges include navigating the complexities of informal mining practices and adapting to local economic conditions. Initial setbacks from partnerships without clear terms highlighted the need for more rigorous due diligence and transparent agreements to mitigate potential mismanagement and fraud.



## Recommendations for Future Interventions

Future interventions should aim to develop and maintain strong local and national government partnerships to ensure alignment with broader mining policies and further promote mercury-free technologies. Supporting local communities is crucial, especially in empowering women within the mining sector. Expanding these practices could facilitate wider adoption of financial inclusion efforts in other regions, enhancing global ASGM practices.

## Conclusion

GoldFinX's ambitious mission to transform the Artisanal Small-Scale Gold Mining (ASGM) sector in Côte d'Ivoire has generated insightful findings, underscored by proven experience and critical lessons learned throughout its operations. The GFX initiative eventually aims to replicate the success of companies like the Dynacor Group<sup>10</sup> and position itself as the leading sub-industrial mining operator and aggregator in West Africa. The strategic positioning within the industry is poised to make GoldFinX a pivotal player in transforming ASGM practices across West Africa, employing a business model that combines profitability with environmental and social responsibility.

Furthermore, a pilot project is currently being developed by the GFX team in collaboration with CASE, the Mining Department, and several large publicly traded industrial mining operators. This project is designed to formalize informal artisanal miners on large industrial permits. The collaborative effort is structured so that all parties benefit—industrial permit owners gain a share of the proceeds to further their exploration costs, the government addresses informal mining and increases tax revenues, and GoldFinX enhances its profitability while reducing mercury use in mining operations. While the new mining code set to debut in November 2024 would allow this new type of operation outright (after over 16 months of intense lobbying efforts by GoldFinX), GFX is currently nearing the final stages of securing a pre-November Ministerial Decree granting the company the right to begin its ASGM Formalization pilot project by end of summer.

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<sup>10</sup> Dynacor Group is a Canadian gold ore and silver ore mining company. More information about the company available at: <https://dynacor.com/>