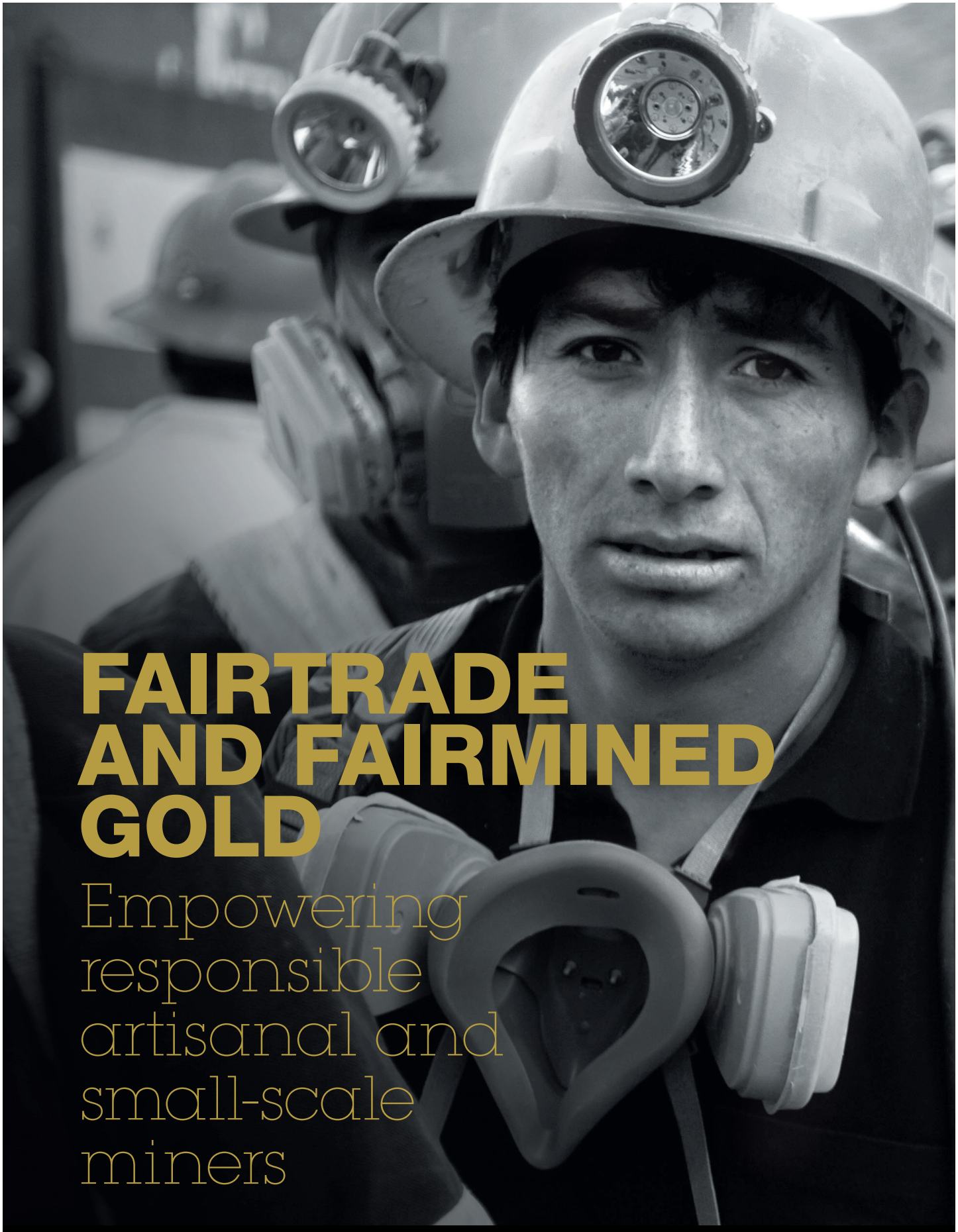


FAIRTRADE AND FAIRMINED GOLD

Empowering responsible artisanal and small-scale miners

A Fairtrade Foundation and Alliance for Responsible Mining Report

January 2011

FAIRTRADE fairmined Gold

GOLD FACTS

- 100 million people worldwide depend on artisanal and small-scale mining for survival.[1]
- There are around 15 million artisanal and small-scale gold miners globally, producing some 200-300 tonnes of gold.[2]
- Artisanal and small-scale miners account for 10% of the global gold supply and 90% of the labour force in gold extraction.[3]
- Artisanal and small-scale miners are characterised by high levels of poverty.
- In 2009, 2,575 tonnes of gold were extracted from the earth, which accounts for 60% of the world's total gold supply. 1,759 tonnes were used to make jewellery.[4]
- Around 50% of the global demand for gold is for jewellery.[5]
- In 2010, $137.5bn (£92bn) was spent on gold jewellery globally.[6]
- The internationally agreed price of gold is set twice a day by traders in the City of London.
- The price of gold has risen from US$320 in 1999 to over US$1,400 per ounce in 2010.[7]
- For Fairtrade and Fairmined gold, miners receive a Fairtrade premium of 10% on top of the guaranteed minimum price, which can be used to invest in their community or business improvement.
- For Fairtrade and Fairmined Ecological Gold that has been produced without the use of chemicals, miners get an extra 5% on top of the 10% Fairtrade premium.

ACKNOWLEDGEMENTS

This briefing has been written by Sonya Maldar, and was commissioned by the Fairtrade Foundation and the Alliance for Responsible Mining. It has been edited by Gemma Cartwright on behalf of the Fairtrade Foundation and Cristina Echavarria for ARM. We would also like to thank the mining organisations who contributed to this briefing.

Photography credits: Eduardo Martino, Ronald de Homell, Samira Pecce, Felix Hruschka

FAIRTRADE FOUNDATION

Alliance for Responsible Mining

www.fairgold.org
www.fairtrade.org.uk/gold
www.communitymining.org

EXECUTIVE SUMMARY

Gold: symbol of love, power and wealth. But look behind the glitz and the reality is not so glamorous. Some 90% of the labour force involved in gold mining is made up of artisanal and small-scale miners. Fifteen million men, women and children work in harsh conditions, doing backbreaking work to scrape a living. They produce 200-300 tonnes of gold each year, around 10% of the global gold supply. Exploited by some middle men, their access to markets is limited and they rarely receive a fair price for their product.

The poor and vulnerable in Africa, Asia and Latin America are driven into artisanal mining because it can offer an alternative way to earn a living where agriculture or other activities are simply not viable. However, they face a multitude of challenges as they struggle to survive. The current increase in gold prices is driving millions more into this sector.

Most mining laws are geared towards large-scale industrial mining and governments tend to give the large-scale industry preferential mining rights. This increases the vulnerability of small-scale miners who find it hard to access legal mining rights, pushing them into running informal and illegal operations. Working conditions are hazardous and health and safety measures insufficient. The unskilled handling of toxic chemicals such as mercury and cyanide poses severe risks to miners, their communities and the natural environment.

If that wasn't tough enough, artisanal and small-scale miners are at the sharp end of a long and complex supply chain over which they have little control. Tracing gold from buyer to jewellery manufacturer to refiner is notoriously difficult and the gold industry has been slow to open its doors to scrutiny. This lack of transparency makes it virtually impossible for consumers to know where and under what conditions the gold in their jewellery was mined.

The international Fairtrade movement and the Alliance for Responsible Mining (ARM) are working together to bring to market the first ever Fairtrade and Fairmined certified gold jewellery. As consumers become increasingly concerned about the conditions in which precious metals are mined, this groundbreaking initiative offers a lifeline to economically disadvantaged artisanal miners and their communities.

FLO and ARM have developed a set of clearly defined standards for responsible mining, which must be met by mining organisations to achieve Fairtrade and Fairmined certification. The standards are based on ARM's Standard Zero, and were tested with nine miners' organisations in Bolivia, Colombia, Ecuador and Peru, in a process that has helped them to formalise and improve their mining and business practices. The standard is open to organisations in Latin America, and work is already underway to expand the initiative to Africa and Asia in the near future.

Miners' groups are proof that with training it is possible to meet strict standards on working conditions, child labour, women's rights, cleaner technology, health and safety, management of chemicals and responsibility to the environment before the gold they produce can be certified as Fairtrade and Fairmined.

In return, the miners gain market access and receive a Fairtrade premium equivalent to 10% of the internationally agreed price of gold, which must be used to improve their business or for community development projects. Those miners' organisations that produce their gold without the use of mercury or cyanide can earn an additional ecological premium of 5% to recognise the additional costs involved in using cleaner technology.

Through these fully transparent and traceable supply chains, consumers and retailers can have confidence that artisanal and small-scale miners are getting a fair deal and responsible mining practices have been used.

But this is just the start of the journey. Fairtrade and Fairmined certified gold has the potential to enable thousands more artisanal miners to escape from unfair supply chains and dangerous working conditions. Although even the most marginalised miners have improved their profit margins and revenues due to the increasing price of gold, many artisanal and small-scale miners are still vulnerable as they are unable to access the enormous profits being made on gold further up complex supply chains.

Expanding the support to miners' organisations so that they can achieve Fairtrade and Fairmined certification and encouraging more retailers to stock Fairtrade and Fairmined gold are vital next steps. However, governments must also help artisanal and small-scale mining organisations to gain access to legal mining rights and create sound laws to govern and support a sustainable artisanal and small-scale mining (ASM) sector.

1. ALL THAT GLITTERS? THE GOLD JEWELLERY INDUSTRY

The global jewellery market is big business. Of the 2,300 tonnes of gold extracted from the earth in 2009, 1,750 tonnes were used to make jewellery. This equates to just over 70% of the global demand for newly mined gold, with the remaining 30% used for investment, dentistry and electronic goods.[8]

A staggering $137.5bn (£92bn) was spent on gold jewellery in 2010, making it one of the world's largest categories of consumer goods. India and the Middle East are amongst the biggest consumers of gold jewellery, with other substantial markets in China and the USA.[9]

The UK is the second largest market for gold jewellery in Europe after Italy where the most popular items purchased are earings, rings and necklaces.[10] In 2005 this represented 19 million jewellery items which were hallmarked as gold.[11] Yet despite the public's fascination with gold, it is only in recent years that shoppers have started to take an interest in where their jewellery comes from and who is involved in its manufacture.

In the late 1990s and early 2000s, brutal conflicts in Angola, Sierra Leone and Liberia, fuelled by trade in so-called blood diamonds, cast a spotlight on the jewellery industry. Hard-hitting NGO campaigns exposed the link between the diamond trade and the death and displacement of millions of people in Africa and consumers started to demand conflict-free jewellery.[12] In 2003 the international diamond certification scheme known as the Kimberley Process was established to help prevent the trade in conflict diamonds.[13]

It is only more recently that there has been focus on the impacts of gold mining on the developing world. NGO campaigns have exposed some of the social and environmental problems caused by the large-scale mining industry, for example, CAFOD's Unearth Justice campaign in the UK and the No Dirty Gold campaign in the USA.[14] Large-scale mine disasters such as the pollution of the Baia Mare River by the Aural Gold Processing Plant in Romania[15] as well as evidence showing how gold mining was funding conflict in the Democratic Republic of Congo caused further concern amongst the general public.[16] It was at this time ARM began to work with artisanal and small-scale (ASM) miners to develop Standard Zero which formed the basis for the Fairtrade and Fairmined Standard for Gold.[17]

Consumer concerns about gold have also been linked to the growing trend for fairly traded or ethically sourced products. A CAFOD poll conducted as far back as 2006 revealed this shift in consumer opinion. Of those polled, a third of respondents said they would choose to shop at stores that were concerned about how their gold is produced, while a quarter said they would buy Fairtrade and Fairmined gold even if meant paying more.[18] More recently, the Fairtrade Foundation's own research shows that consumers believe buying jewellery for a special occasion would hold greater value and significance if it carried the Fairtrade and Fairmined dual label.[19]

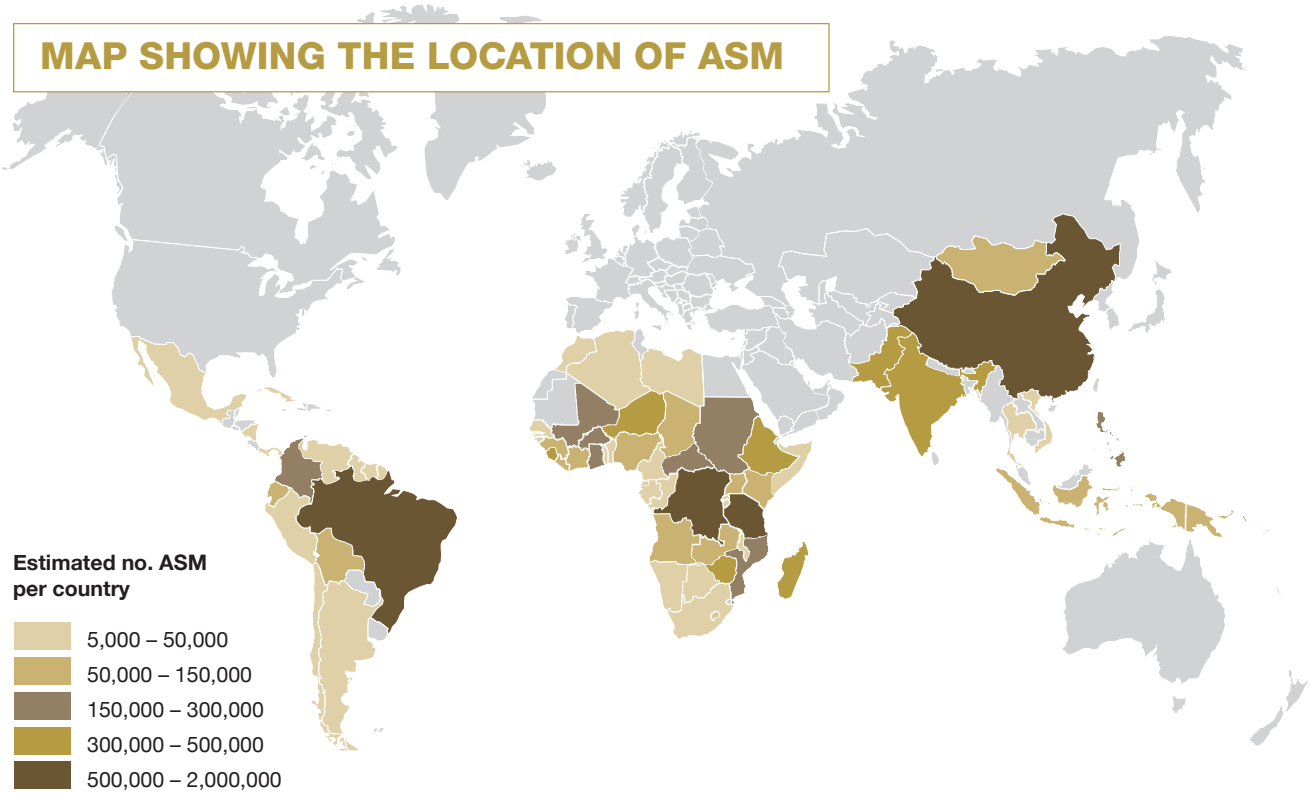
In response to these shifts in public opinion, a number of initiatives are seeking to address concerns about practices within the large-scale gold mining industry, for example the Responsible Jewellery Council and the Initiative for Responsible Mining Assurance.[20] However, because of the complexity and opacity of the gold supply chain (see section 3) it has been difficult to get the industry to change its ways and progress has been slow. It is also significant that none of these initiatives address the challenges of the artisanal and small-scale mining sector, excluding millions of miners worldwide who make up the majority of the mining workforce.

From 2005 to 2009, 32% of the global gold supply came from recycled sources.[21] Although recycling is a good way of reducing the environmental impacts of mining, only 30% of the market for gold can be satisfied from such sources. Fairtrade and Fairmined certified gold will provide direct developmental impacts for ASM miners, who could take up other informal exploitative activities such as involvement in the drug or sex trades.

2. ARTISANAL AND SMALL-SCALE GOLD MINING: THE FACTS

ASM is a global phenomenon occurring in at least 70 countries in Africa, Asia and Latin America.[22]

MAP SHOWING THE LOCATION OF ASM



Source: CASM

An artisanal and small-scale miner is self employed, but can also be an employee, working as an individual or in a family unit linked to a local community, mining group, co-operative, or ASM organisation. Those involved are usually poor, vulnerable men, women and children driven to artisanal mining for survival.

ASM can be considered as a pyramid, where new individual miners and families enter daily at the bottom, and either scavenge for a time and then leave, or become settled and organised, and start climbing the ladder towards small-scale mining at the top.

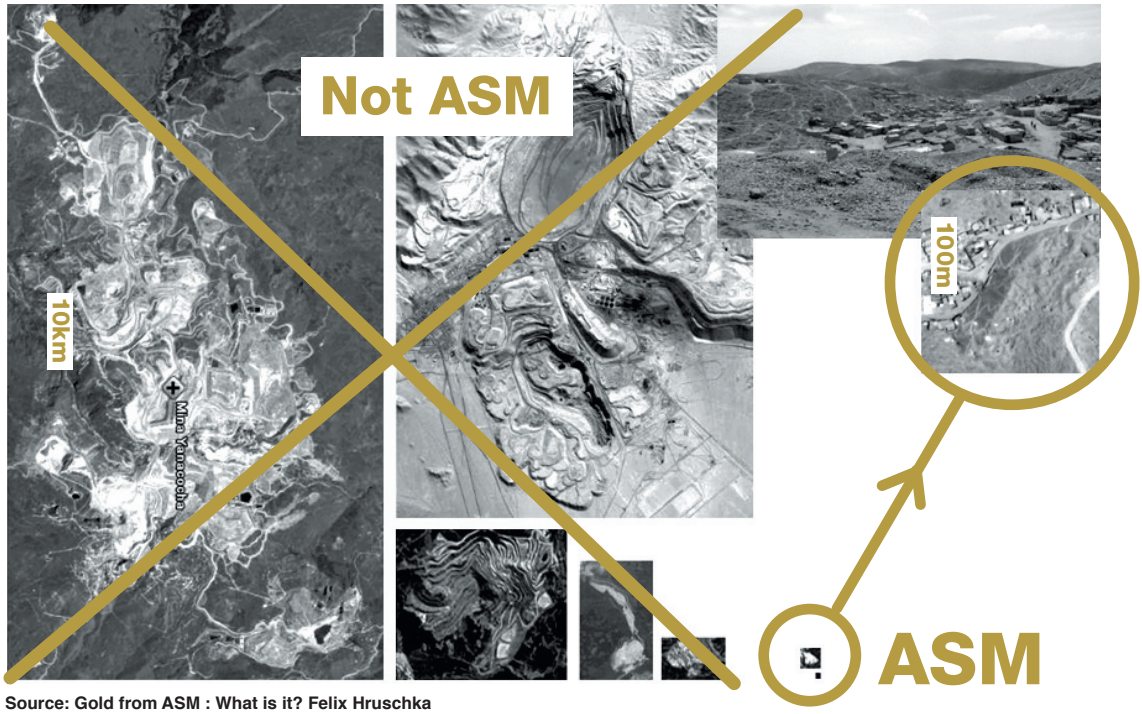
A key feature of artisanal mining is high labour intensity and low capital investment, in comparison to the large-scale industry which is highly mechanised. It is mostly informal and unregulated, with miners employing rudimentary tools and equipment to mine and process the gold. ASM is sometimes an illegal activity as miners do not necessarily have rights to mine in the area.

However, if miners are able to organise and reinvest they can move into the small-scale mining category, which is legally recognised, more mechanised, more organised and more formal, allowing miners to work over a larger and deeper area, and earn a decent living.[23]

The mostly informal nature of ASM makes it impossible to know the exact number of people involved. In 1999 the ILO estimated that there were 13 million artisanal and small-scale miners, and 100 million who depended directly and indirectly on ASM for their livelihood.[24] The rise in gold prices today (from US$320 in 1999 to over US$1,400 per ounce in 2010) means that the number of people depending on ASM activity to survive has dramatically increased.[25]

SIZE MATTERS:

the difference between large- and small-scale mining

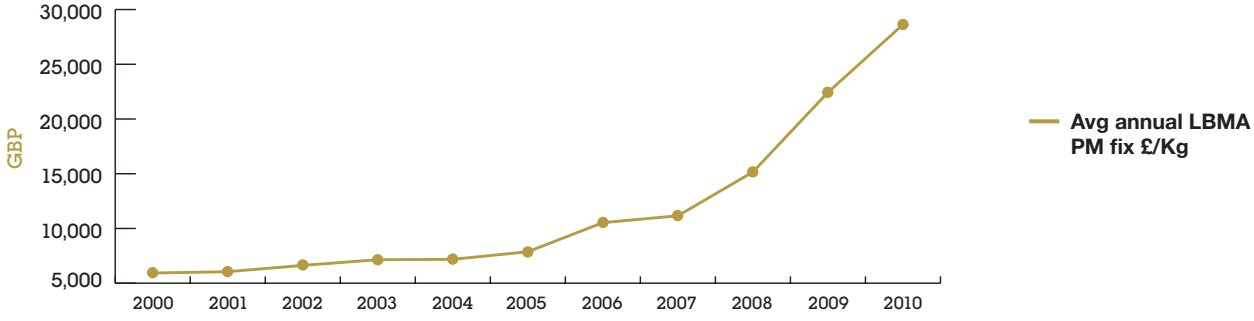


Source: Gold from ASM : What is it? Felix Hruschka

Large-scale mining accounts for the majority of the world's gold supplies, but just 10% of the labour force. It is typically very capital intensive with substantial investments in plant and infrastructure taking place. Large-scale mines typically take several years to build and commission, and depending on their size can cost hundreds of millions of dollars. They are often managed by listed companies, or state-owned mining companies. Large-scale hard rock mining is usually open pit and brings great environmental damage. Although the social and environmental performance of the largest gold mining companies has improved in recent years, there are still cases of human rights abuse and environmental pollution linked to the large-scale industry today.[26]

High value minerals such as gold and gemstones are the predominant commodities extracted by artisanal and small-scale miners. Silver and in rare cases platinum may also be a by-product of gold mining. There are currently around 15 million artisanal gold miners globally, producing some 200-300 tonnes of gold.[27] So although artisanal and small-scale miners produce just 10% of the world's gold supply, it is estimated that they account for 90% of the labour in gold extraction.[28]

RISING PRICE OF GOLD



Source: Data reproduced by kind permission of the London Gold Market Fix Ltd.

2.1 HOW THE GOLD IS MINED AND PROCESSED

Gold mining methods vary according to the geology of the area where the gold deposit is found. Different types of mineral deposits are found in riverbeds, flood plains and areas where there are small veins of gold in the rock, as well as mines and mine waste known as tailings abandoned by large-scale companies.

The gold found in riverbeds is known as alluvial gold and is usually easier to harvest directly from the surface with basic tools, such as spades and pans, or from old river terraces by removing vegetation or digging pits to the gold bearing beds. Tailings, containing small concentrations of gold left by large mining companies, are mined in a similar manner. Processing often takes place on site, on the same day, in order to generate much-needed income quickly.

Miners of alluvial gold tend to be transient, combining mining with other economic activities depending on the season and the opportunities in other sectors such as agriculture. Alluvial gold deposits are especially vulnerable to rush mining when gold prices rocket, attracting rich and poor and creating enormous challenges for responsible and stable alluvial mining communities, such as the Oro Verde miners in Colombia.

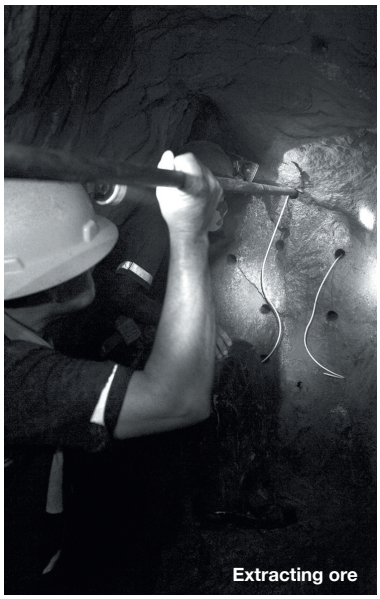
In the case of hard-rock mining, which takes place underground, larger capital investment is required for tools, explosives and equipment to dig tunnels, remove the rock which contains gold (known as ore) and to pump oxygen underground. In this case the ore is extracted underground and processed on the surface, often over several days or weeks. These miners tend to settle, forming villages and generating dynamic local economies.

The ore goes through several stages of processing to extract the gold. First it is crushed, milled and ground. This can be done by manual crushing (often the work of women) or mechanised crushing and milling, or a combination. The finer the powder, the more gold is recovered.

Next the ore is concentrated into a gold rich mineral. This is done by gravity separation using sluice boxes, shaking tables and simple pans. Most commonly, the concentrate is then mixed with mercury, which captures the gold to form a mixture known as amalgam. The amalgam is heated to evaporate the mercury, leaving residual gold and other metals. Finally, the residual gold is melted down to remove excess mercury. At this stage, the purity of the gold may vary from 70% to 90%, since it is still mixed with silver and other metals. This semi-pure gold is known as doré.

Some small-scale miners use cyanide leaching as an alternative to mercury processing. Here, a cyanide solution is used to leach the gold from the crushed ore, by dissolving it into a gold-rich liquid. The still semi-pure gold is then recovered from the solution using zinc or activated carbon.

As using cyanide requires substantial investment, special training, a longer processing time, and significant financial capacity, it is less widely used by artisanal and small-scale miners. However when used properly, cyanidation enables miners to eliminate mercury completely and increase their gold recovery rates.[29]


Extracting ore


Milling the ore


Cyanidation pit

3. FROM MINE TO SHOP: THE GOLD SUPPLY CHAIN

Extracting the gold from the earth and processing it are just the first steps in a long and complex supply chain. Artisanal miners never sell their gold to end retailers and it may change hands several times before it leaves the country for export.[30] Typically, miners sell their gold to a buyer in the nearest town or a buyer's agent who comes to the mine site.

It may go through further traders before it is exported. Either in country before export or once imported the semi-pure gold, or doré, is refined into gold bullion to a purity of a minimum of 99.5% and sold on the international markets.

London may be a world away from the average artisanal miner, but it plays an influential role in the global gold market. London is also the place where billions of dollars in gold bullion is traded.

One of the most powerful players in the gold market is the London Bullion Market Association (LBMA). This is the London-based trade association that represents the wholesale market for gold and silver in London and, importantly, sets the world price for gold. The London Gold Fix (or LBMA fix) as it is known, is set twice a day and is the global price reference for gold trading worldwide. These decisions, taken by traders in the City of London, have a major impact on the lives of artisanal miners, thousands of miles across the world. Gold bullion is invested in by not only financial organisations but also individuals. There has been a large increase in the investment potential of gold since the recent economic crisis as its value has continued to increase.

From bullion dealers or investment banks the gold is sold to a manufacturer. Here it is alloyed with other metals and manufactured into metal sheets, wire or granules before finally being crafted into jewellery.

The traditional structure of the supply chain means that gold from several sources may be refined in the same batch, and it has been historically impossible for consumers to know where the gold in an item of jewellery was mined.[31] In recent years there have been calls for increased transparency in the global gold industry. This pressure has come from NGOs and consumers who want to be sure that the gold they are buying has not caused harm to communities or the environment.

Source: ARM

4. BETWEEN A ROCK AND A HARD PLACE: THE LIFE OF AN ARTISANAL MINER

Artisanal and small-scale miners are highly vulnerable. Driven into mining because of lack of alternative livelihoods, they work in backbreaking conditions, with little legal protection. Mining communities lack basic sanitation, clean and safe drinking water and have little or no access to health and education services.

4.1 ACCESS TO LEGAL MINING RIGHTS

One of the major challenges for artisanal and small-scale miners is gaining access to legal mining rights. Mineral laws are usually designed for large-scale, industrial mining and rarely are artisanal and small-scale miners capable of meeting the legal requirements for the large-scale sector.[32]

The difficulty in getting legal mineral rights means that most ASM is informal or illegal. While some countries, such as Peru and Tanzania, have explicit legislation for ASM, in the majority of places the informality of ASM leaves miners vulnerable to exploitation by middlemen and lack of regulation.

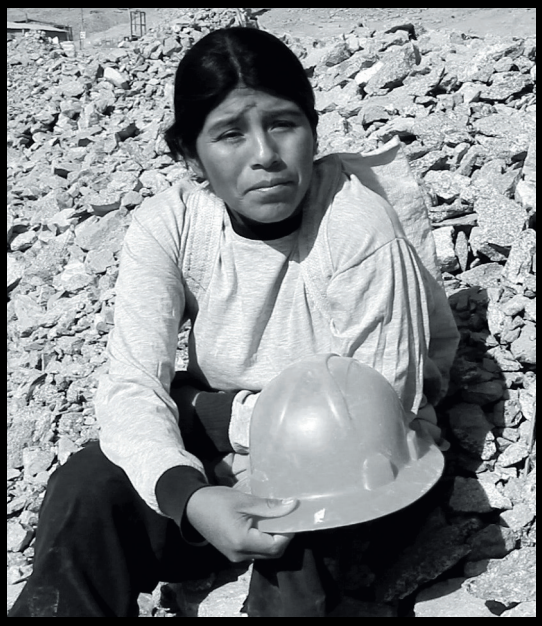
4.2 DANGEROUS WORKING CONDITIONS

Mining is a high risk activity and miners face a multitude of hazards everyday. Due to the informal nature of ASM and the lack of capital investment, most miners are poorly trained, don't use protective gear and use only rudimentary equipment. According to the International Labour Organisation there are six to seven times as many non-fatal accidents in ASM compared to large-scale mining.[33] This is mainly because in ASM there is a larger labour force and poorer working conditions. Per kilogram of gold produced however ASM miners suffer less fatalities than occur in large-scale mining. The most common causes of accidents are rock falls, ground collapse,

'Treatment for even the most basic ailments is hampered by many mining communities' lack of access to medical facilities.'

shaft collapse, landslides, faulty machinery and explosive accidents. Poor lighting, ventilation, dust inhalation and noise pollution can lead to health problems, such as silicosis.[34]

There are severe risks to health from daily contact with the toxic chemicals used to process the gold, such as mercury, cyanide and nitric acid. Exposure to mercury vapours and ingestion from contaminated water and food can lead to colic, vomiting, gastroenteritis, kidney complaints, muscular tremors and ulceration of gums. Chronic mercury poisoning can result in speech disturbances, lack of concentration, depression, muscular atrophy and seizures.[35] Treatment for even the most basic ailments is hampered by many mining communities' lack of access to medical facilities.



Jenny Torres Delgado is 27 years old and has lived in Santa Filomena, Peru for most of her life. She has two children, a girl of five and a boy of three.

'My parents work here. My whole family lives here. I've been a 'pallaquera' (woman miner) for two years, that's all. Well, 'pallaqueras' are women (sometimes also older men and adolescents) who collect the small stones that are left over after the rocks have been broken up. We collect these stones and sometimes we sell them or sometimes we grind them and that's virtually what we live off, that's to say, how we feed our families [….] We're working in this environment all day and all the time we're working here, we're breathing in dust, feeling tired, and sometimes we suffer with our ovaries because of the weight, and also there's the stones which fall onto our knees. Above all, though, it's the dust, and also the weight when lifting up the stones.'

4.3 MARKET ACCESS AND UNFAIR SUPPLY CHAINS

'It's very difficult for us to save because we have to pay for the children's education, housing, food, healthcare... and so it's not possible to save. The price of gold fluctuates too much and very often, after a 60 day shift, there's not even enough money for food. Sometimes the gold isn't pure and it's not worth very much.'

Victor Juan Hurtado Padella, Deputy Mayor of Santa Filomena, Peru

Not only do artisanal miners work in dangerous conditions, they are at the mercy of unbalanced markets and unfair supply chains. A major problem for miners is securing a fair price for their gold. Although the miners often know the price of gold as it is traded on international markets, they receive far less because of the number of middlemen involved. Buyers commonly pay below the market value, can act as cartels and fix prices, or cheat miners on the weight and purity of the gold content. A miner who is not part of an organised mining group may typically receive only a small proportion of the internationally agreed price of gold.

Most miners sell at the mine site, to maximise the time spent mining, and in small volumes, usually at the end of the day because they have immediate needs. This prevents them taking advantage of higher prices offered for larger volumes of gold.

Artisanal and small-scale miners find it hard to access formal credit from banks as they generally lack assets, and often do not own a mining title for the area they mine, to use as collateral for loans. They are often forced to seek loans from their buyers. Rates for loans can be extortionate and many miners end up in a state of debt bondage.[36]

4.4 ENVIRONMENTAL CONCERNS

Toxic chemicals have an impact on the environment as well as the health of miners. Most artisanal and small-scale miners lack awareness or knowledge about the environmental impacts of their activity; subsistence is their main concern.[37]

Some 650-1,000 tonnes of mercury are released into the environment per year as a result of poor mining practice. Artisanal mining is one of the largest sources of mercury pollution in the world.[38] This has a devastating impact on surrounding ecosystems and human health. Other common problems at ASM sites are dumping and leaking of mine waste into water systems; siltation of rivers; forest clearance and soil erosion.[39]

Encouraging the substitution of mercury is a challenge because it is a cheap, easy and effective way to extract gold from ore. It is easily accessible to poor artisanal and small-scale miners and can be used independently, by individual miners working alone.[40]

Alternative methods such as cyanide leaching are costly and require a reliable power supply, which most mining communities lack. Safe cyanide use requires training and investment in safe installations, larger volumes of mineral, longer processing time and highly qualified operators, making this unrealistic for the majority of subsistence artisanal and small-scale miners, but better than mercury for more organised, formalised small-scale miners.[41]

5. FAIRTRADE AND FAIRMINED GOLD: WHAT IT MEANS

'Looking into the future, I think this project can be one of the bases for the continuous development of our Chocó communities.'

Américo Mosquera, Oro Verde miner, Colombia

Fairtrade and Fairmined gold is about creating opportunities for economically disadvantaged artisanal miners and their communities. Fairtrade and Fairmined certification is a result of two organisations, Fairtrade International (FLO) and the Alliance for Responsible Mining (ARM), combining their expertise to enable small-scale and artisanal miners to improve their livelihoods. The Fairtrade Foundation is the UK member of FLO which together with ARM has pioneered Fairtrade and Fairmined gold and the story behind it.

'You take (the gold) to town to sell and you get paid very little. If you take it to Oro Verde you get paid more.'

Nubia Mosquera, woman miner, Oro Verde project, Colombia[42]

VISION FOR RESPONSIBLE ASM

Our vision is for ASM to become a formalised, organised and profitable activity that uses efficient technologies, and is socially and environmentally responsible, that increasingly develops within a framework of good governance, legality, participation and respect for diversity, it increases its contribution to the generation of decent work, local development, poverty reduction and social peace in our nations, driven by a growing consumer demand for sustainable minerals and ethical jewellery.

FAIRTRADE INTERNATIONAL (FLO) & FLO-CERT

Fairtrade International (FLO) is the non-profit international organisation comprising the Fairtrade Foundation and 24 member organisations in producer and consumer countries. Fairtrade International (FLO) is responsible for developing Fairtrade standards, providing producer support and managing producer and trader registers.

FLO-CERT is an independent international certification company who audit and independently certify producers and miners against Fairtrade and Fairmined standards.

THE ALLIANCE FOR RESPONSIBLE MINING (ARM)

ARM is an international multi-stakeholder initiative created to enhance equity and wellbeing in ASM communities. Working with miners and NGOs, ARM developed the original Standard Zero upon which ARM and FLO later developed the Fairtrade and Fairmined Standard for Gold. Through both site-based and product certification, and corresponding market incentives, ARM supports ASM organisations and communities to meet criteria for responsible social, labour, environmental, and trading practices, and does advocacy work with governments for improved rights for ASM miners.

FLO and ARM have created a set of clearly defined standards which must be fulfilled by miners' organisations to achieve certification. The standards cover issues such as working conditions, technology, health and safety, women miners and child labour, management of chemicals and responsibility to the environment and the local community.[43]

Only community-based artisanal and small-scale miners' organisations, composed of self-employed miners who are members, shareholders, or production partners of the mining organisation, or small entrepreneurs with contracted labour, can apply for Fairtrade and Fairmined certification. The organisation must be legally entitled to mine and is responsible for all mining activities within its mining area.

Mining organisations are audited by the independent international certification body FLO-CERT to ensure they are complying with the standards. Certified gold is co-labelled bearing both the FAIRTRADE Certification Mark and Fairmined Mark. It is the first ever independently certified fairly traded gold for the jewellery market.

5.1 FAIRTRADE AND FAIRMINED: A BETTER DEAL FOR MINERS

Like producer organisations certified for other Fairtrade products, mining organisations and their communities are guaranteed a better deal. Miners get market access and a fair price for their gold, with increased security of the Fairtrade premium.

The Fairtrade minimum price for the pure gold content in unrefined gold is set at 95% of the London Bullion Market Association's (LBMA) fix. The LBMA fix is the internationally agreed price of gold as it is traded on the international markets. Certified miners receive at a minimum, 95% of the LBMA fix in order to recognise the additional value other members of the gold supply chain add to the gold.

Even more important than the minimum price to the miners is the Fairtrade premium the miners receive. This is calculated as 10% of the applicable LBMA fix, for investment in democratically agreed economic, social or environmental improvements of the miners' choice.

5.2 FAIRTRADE AND FAIRMINED: RESPONSIBLY MINED GOLD

The Fairtrade and Fairmined dual label ensures that gold has been mined, processed and traded in a fair and responsible manner.[44] This means:

- **Strengthened miners' organisations**
  Through organisation, the miners' groups are strengthened and empowered. They form groups to give themselves better bargaining power with traders, to get a fairer return for their produce, and gain greater control over the jewellery supply chain. They are required to participate in the social development of their communities.

- **Child labour**
  Mining is considered to involve the worst forms of child labour as defined by ILO Convention 182. For certified miner organisations to be a part of Fairtrade and Fairmined, they must meet with ILO and national

regulations in their country. For most, this means children under 15 years of age should not work in mining and all persons should be over 18 to work underground.

Under Fairtrade and Fairmined, no under 18 year olds should be employed for any type of work which could jeopardise their health or safety. Any under 18s who participate in mining alongside family members must not do anything which places them in danger or which impacts on their schooling, social or physical development.

Fairtrade and Fairmined certified mining organisations are required and supported to eliminate all forms of child labour within their development plans for the future and to provide younger workers with access to training and employment.

- **Improved working conditions**
  Fairtrade and Fairmined certification requires mandatory use of protective gear and health and safety training for all miners. This means miners are trained to reduce risk in the workplace and on how to respond in emergency situations.

- **Freedom of association and collective bargaining**
  Certified miners' organisations must recognise the right of all workers to establish and join trade unions and collectively negotiate their working conditions.

- **Responsible use of chemicals**
  Certified miners must use safe and responsible practices for management of toxic chemicals in gold recovery, such as mercury and cyanide. Chemicals have to be reduced to a minimum, and where possible eliminated over an agreed time period.

5.3 AN ECOLOGICAL PREMIUM

Miners can earn an additional ecological premium when they recover gold through gravity only, without the use of mercury or cyanide. In addition, they must ensure minimum ecological disruption and forest restoration from the outset of new operations. The ecological premium is calculated as 5% of the applicable LBMA fix on top of the Fairtrade premium not only as a reward for producing gold meeting higher standards, but also partly to recognise that miners recover less gold by not using chemicals.

5.4 TRACEABILITY OF THE SUPPLY CHAIN

Fairtrade and Fairmined certified gold is unique in offering the first transparent and traceable supply chain for artisanal and small-scale gold mining. This is necessary if consumers and retailers are to have confidence that the gold in their jewellery has met the Fairtrade and Fairmined standards.

Certified jewellery products will have a dual stamp which contains the FAIRTRADE Mark and the Fairmined Mark to show the gold has been carefully extracted by mining organisations that meet the requirements of the Fairtrade and Fairmined gold

CHILD LABOUR

It is common for children to be involved in artisanal mining to help boost family income. Due to the lack of childcare facilities in many remote artisanal mining communities, small children and babies may accompany parents to the mining site. Older children may help with hauling ore, fetching water or breaking rock. Outside of the family context, orphans and vulnerable children turn to artisanal mining as a survival strategy. In some cases they are contracted into bonded labour.

The Fairtrade Foundation and ARM recognise that child labour is a reality for many mining communities. Fairtrade and Fairmined certification will help artisanal mining organisations work towards the elimination of child labour within their communities. Fairtrade and Fairmined certified mining organisations must commit to standards which mean children under 15 years cannot work in mining and must be over 18 to work underground.

By investing the Fairtrade Premium in education and training, communities can provide alternative childcare arrangements for working mothers and education opportunities for young people. In Santa Filomena, the Nueva Esperanza women miners association was set up (as part of an ILO IPEC CARE project) to develop alternative economic development projects including setting up a nursery to provide childcare for women miners. With support from ARM, and in alliance with SOTRAMI, the men's company that owns the mining area, this association will become certified under the Fairtrade and Fairmined standards. The association plans to use the Fairtrade Premium they receive to employ qualified staff for the nursery.

Working towards certification and receiving training on ways of keeping children safe from harm has been key in order for this community to reduce child labour. The community members at SOTRAMI are proud of their work to decrease child labour and continue to monitor this closely within the area they mine.

standard. Miners' organisations, buyers, refiners and manufacturers are required to have strict internal controls to ensure that the entire volume of certified gold they sell under Fairtrade and Fairmined terms is traceable. Certified gold is kept separate from non-certified gold during processing, refining and manufacturing. This means that it can be traced from the miner to the shop, creating a fully transparent supply chain.

In exceptional cases, where the physical traceability requirements impose disproportionate costs, limiting access to Fairtrade markets for certified miners' organisations, refiners and manufacturers can apply to be exempt from physical traceability requirements.[45] Physical traceability for Fairtrade ecological gold that receives the ecological premium is compulsory at all times.

MERCURY USE[46]

In many cases mercury amalgamation is the only gold recovery technology available to artisanal miners. This applies to the average artisanal miner, who is poor. Working individually or in small teams as members of an artisanal miners' organisation the miner lacks the funds needed to invest in advanced technologies such as mechanic gravity methods or cyanide leaching. The miner needs to sell their gold on a daily or weekly basis in order to buy food and clothing and pay for medical treatment and their children's education.

Although elimination of the use of mercury in responsible artisanal and small-scale gold mining is an important goal, the total and immediate elimination of mercury is not a realistic condition for Fairtrade and Fairmined gold. Despite the human health and environmental risks use of such chemicals presents, totally eliminating mercury and cyanide is inefficient from the perspective of mineral recovery, and if it were included as a condition, 95% of all ASM would be excluded from the development opportunity of Fairtrade.

Instead the standards set out a process to support ASM organisations to minimise the use of mercury over an agreed period of time, through implementation of responsible practices and technologies to mitigate and reduce impact on the environment and human health.

The greatest loss of mercury occurs when whole ore amalgamation is carried out, rather than reducing the ore to a concentrate, and when amalgam is burnt without using a device to recover the mercury (retort or similar equipment).
The Fairtrade and Fairmined standards require artisanal miners to use a concentration process (gravity separation, flotation, hand-sorting) prior to amalgamation, and makes the use of retorts or other mercury recovery devices during amalgam decomposition obligatory. Both requirements ensure that mercury emissions are drastically reduced up to 90%.[47]

In addition, an ecological premium is offered on top of the Fairtrade premium for mining organisations who eliminate mercury and cyanide altogether using only gravimetric methods for gold recovery, and develop low impact mining.

CYANIDE USE

Mercury amalgamation is a speedy process that can be carried out by individuals, while cyanidation is a slow process that usually requires substantial investment in the construction of a processing plant. Artisanal miners in many countries have proved that amalgamation can be replaced by cyanidation at their level of production if they organise, obtain the necessary finance to invest and start using small processing plants.

As cyanide can be detoxified and is even biodegradable with exposure to UV light and oxygen, cyanidation can be less harmful to the environment than mercury amalgamation when practiced to strict standards. For many miners' organisations the Fairtrade premium can provide a unique opportunity to obtain the funds needed to invest in more environmentally efficient technologies.[48]


Moving the ore to the cyanidation pits


Cyanidation pit

6. WHAT DIFFERENCE HAS FAIRTRADE AND FAIRMINED CERTIFICATION ALREADY MADE TO MINERS?

'Before Fairtrade we sold our product, that is, our gold, to the intermediaries in the district of Chaparra. We sold to them using their little scales. We didn't know if the scales were correct or not, we didn't know our legal rights or how pure our product was.'

Victor Juan Hurtado Padella, Deputy Major, Santa Filomena, Peru

'This project has been of great benefit to us. As long as we work hard and follow the guidelines, we obtain food security.'

Américo Mosquera, Oro Verde miner, Colombia

To date, nine miners' organisations, representing 2,500 miners and their families, are being certified. These miners were heavily involved in developing and testing the Fairtrade and Fairmined standards. The following examples show the difference Fairtrade and Fairmined has already made and the continuous improvements the groups are planning once certified products go on sale. Fairtrade and Fairmined certification is working to improve the lives of some 30,000 people from mining communities. All of the current producer groups are based in Latin America and applications are open to all ASM organisations in that continent. More producer organisations are expected to join in 2011 and beyond. A network of pilots has been established in Africa with plans for expansion into Asia.

'Before, we used the mercury to amalgamate the material inside the town. We weren't really aware about the environment and the harm it caused. Now, with the training we've had and the prohibitions, we use the mercury in the correct way, and in order to do this we've created what we call an industrial zone, dedicated exclusively to the use of mercury.'

Victor Juan Hurtado Padella, Deputy Mayor, Santa Filomena, Peru

6.1 THE ORO VERDE PROGRAMME, COLOMBIA[49]

'It is important because you get paid extra and you also have the guarantee that they are providing you with technical assistance. They're giving you tips so that you can improve your activity day by day.'

Américo Mosquera, Oro Verde miner, Colombia[50]

The Oro Verde programme was established in 2000 to support ASM by Afro-Colombian communities in the Chocó region of Colombia. Afro-Colombian communities are amongst the most marginalised in Colombia.

The communities are organised and represented by Community Councils that govern collective lands within different municipalities. The programme has worked with over 1,300 artisanal miners since it was established. Currently 112 family units participate in the programme, which achieved Fairtrade and Fairmined status in 2011.

The type of mining carried out by the Oro Verde producers is alluvial, involving gold panning in rivers and streams and diving for sediment. No mercury or cyanide is used to process the gold; instead the communities employ a range of traditional mining techniques inherited from their ancestors allowing them to claim the additional ecological premium

for their gold. Care is taken to restore vegetation after mining to encourage full recovery of the forest terrain. The Fairtrade premium the miners will receive can be invested in the business, such as bringing more miners into the programme and scaling up production. They also hope to enhance gold recovery by investing in improved technology and implement a gender policy to improve the working conditions and employment opportunities of women involved in mining. The miners democratically decide how the Fairtrade premium is invested, encouraging them to become key players in their own community's development.

The Oro Verde programme has been highly successful in offering Afro-Colombian communities an alternative to renting land for illegal and uncontrolled medium-scale mining, which has had devastating impacts on the local environment. However, Afro-Colombian communities still face major challenges in protecting their land rights against external mineral title requests to explore the region and extract its minerals.

6.2 SOCIEDAD DE TRABAJADORES MINEROS S.A. (SOTRAMI), PERU[51]

'There have been so many changes since we organised ourselves into a company.'

Victor Juan Hurtado Padella, Deputy Mayor, Santa Filomena, Peru

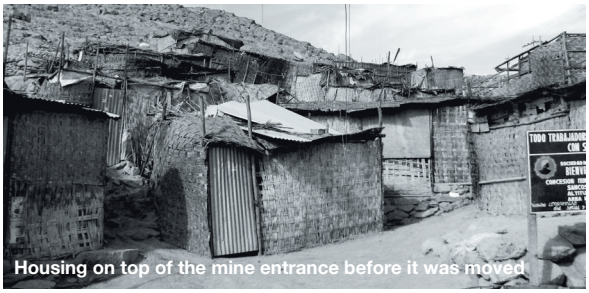
The village of Santa Filomena in central Peru was originally settled in the 1980s by informal miners working in abandoned mine sites. All mining was done manually and all processing was with mercury. Amalgamated gold was burnt in the open air, presenting serious risks to human health and the environment. Child labour was a common problem in the mine. People lived in make-shift houses and the community lacked even the most basic facilities such as schools or health services.

In 1989 the Sociedad de Trabajadores Mineros S.A. (SOTRAMI S.A.) was founded as a company so that the miners could get legal rights to mine. By taking steps to organise, the miners of Santa Filomena gained confidence and increased their bargaining power. Today SOTRAMI is owned by 166 shareholders, has mining permit for 1,000 hectares and a permit to run a processing plant.

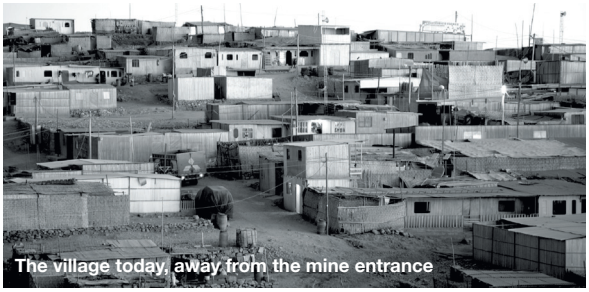
Some 88 miners work in two groups run by SOTRAMI. The company has contracted five engineers, a metallurgist, an electro mechanic and chemical engineer to run the mine and processing plant. SOTRAMI operates an underground hard-rock mine. Processing is by cyanide leaching in vats with a closed circuit system to prevent release into the environment. Final processing takes place at plant in the capital Lima. The average yield is 4.6kg of gold per month.

The company has taken major strides to improve technology, with the aim of offering mercury-free processing to all SOTRAMI miners. Health and safety guidelines for the safe storage of chemicals are strictly enforced and the mills and the mercury processing have been moved away from the settlement area. A winch has been installed to hoist minerals so that it is no longer done manually. Pneumatic drilling has replaced artisanal digging of the ore. Child labour has been completely eliminated from the mine. All workers are given occupational medical check ups and training on health and safety and the environment.

There has been a major transformation in living conditions in Santa Filomena. The village was moved away from the mine site by SOTRAMI and a grant by CASM. Although this has already greatly improved the living conditions and safety for residents they still have plans to continue to improve their village with Fairtrade premium. Using the Fairtrade premium the community plans to provide electricity and subsidise health and education for all, to support community organisation and local authority efforts to improve living conditions in the village.



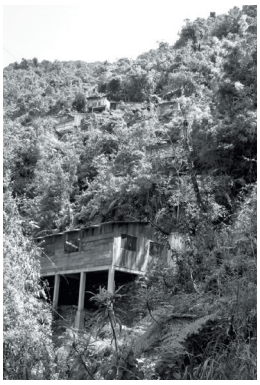
Housing on top of the mine entrance before it was moved



The village today, away from the mine entrance

6.3 COTAPATA MINING CO-OPERATIVE, BOLIVIA

Nestled 4,500 metres in the Yungas Cloud Forest, the Cotapata National Park in Bolivia is home to the Cotapata Mining Co-operative. This part of Bolivia, close to the capital of La Paz, has a long history of mining. In 1991 a group of miners established the Cotapata Co-operative to formalise their activity and secure land rights and a mining permit.



There are currently 88 associates who make up the co-operative. Of these, 43 are active workers. Cotapata operates underground, hard-rock mining, with the miners working two-week shifts at the camp and returning to La Paz during rest periods. Most of the families of the miners live in La Paz so there are no children at the mine site.

All workers receive a salary of around US$200 per month, significantly higher than the national average wage of US$80 per month. This has enabled the miners to make real improvement to the lives of their families. Each miner is insured to a value of US$10,000 providing additional security for themselves and their families.

Cotapata is respectful of the fact that they operate in a National Park. Cotapata have mined in the region since before it was declared a National Park and have permission from the necessary bodies to mine. They use a closed-circuit mercury recovery system which prevents mercury from being released into the environment. They are also working with a Bolivian university to construct a safe dam to hold tailings – the waste left over from mercury processing.

The co-operative produces between 2.5 and 3kg of gold per month, which is transported to La Paz and sold to traders for refining and export. The Fairtrade and Fairmined premium will enable Cotapata to increase revenue through improving their operations; exporting gold directly thereby cutting out middlemen; and formalising sales transactions.

In the future, Cotapata would like to increase the mineral output of their operation by reducing the loss of gold during processing. They also hope to improve housing conditions and health services at the mining camp and improve working conditions and training facilities for the miners.

6.4 WOMEN MINERS

'I would ask (the people in the UK) to understand that when they buy our gold, they'll be doing a good thing and helping many women who work hard and have to struggle in order to get the gold.'

Jenny Torres Delgado, 27-year-old miner from Peru.

Despite its masculine image, women are involved in almost every aspect of artisanal mining and processing. In Asia, less than 10% of miners are women, whereas in Latin America the proportion tends to be around 20%. The highest percentage is in Africa with around 40-50%, although this varies regionally and from site to site.[52] It is most common for women to be involved in the transport of ore, supplies and water; manual crushing and grinding; and scavenging for ore from dumps and tailings. At many mine sites, women work with young babies tied to their backs and toddlers at their side.[53]

WOMEN MINERS' ASSOCIATION NUEVA ESPERANZA, PERU

The Nueva Esperanza miners' association was formed by women miners from the town of Santa Filomena who needed to organise their work to fit around childcare and other domestic responsibilities. The group has grown from 40 to 180 women since it was established in 2003. The women carry out pallaquero work, collecting and sorting valuable minerals and waste which is then sold onto the SOTRAMI company for processing.

The women are organised into two collecting groups working from 2pm until 6pm each afternoon to fit around childcare demands. The association has a nursery where women can leave their children while they work. They use a hand rake to collect the minerals and must wear safety equipment while working.

Through the establishment of Nueva Esperanza, the women miners of Santa Filomena have grown in confidence and gained economic independence. They are using the Fairtrade premium to set up a sewing workshop to make the sacks they use to collect rocks.

7. TIPPING THE BALANCE: SUPPORTING FAIRTRADE AND FAIRMINED GOLD

Fairtrade and Fairmined gold has the potential to reach thousands more artisanal and small-scale miners worldwide. Initially launched in the UK, it will be expanded to other countries from 2011 onwards. The long term vision for Fairtrade and Fairmined gold is to reach 5% of the gold jewellery market over a 15-year period. Governments, retailers and consumers can help make this a reality.

7.1 RETAILERS

Businesses that source Fairtrade and Fairmined certified products are at the forefront of a growing movement of consumers looking for reassurance that the products they have bought have been manufactured in a sustainable and fair manner. By actively demonstrating a commitment to fair sourcing practices, they are acknowledged leaders, seen to be shaping the supply chains of the future by their customers and suppliers and wider stakeholders, including trade bodies and governments. They are uniquely placed to fulfil the currently untapped market demand for responsibly mined gold.

7.2 CONSUMERS

One way to ensure the success of Fairtrade and Fairmined gold is for consumers to demand it in the shops. Next time you make a special purchase, choose Fairtrade and Fairmined jewellery to be sure that artisanal miners are getting a fair deal and the gold has been mined responsibly. Spread the word and encourage your local jewellers to stock Fairtrade and Fairmined gold. Find out more on **www.fairtrade.org.uk/gold**

7.3 GOVERNMENTS

Fairtrade and Fairmined certification is one approach to addressing the challenges of ASM, but ARM are working with governments to gain more support for the formalisation of the ASM sector. By introducing appropriate legislation that is tailored to the needs of artisanal and small-scale miners, and implementing public policy and programs for ASM, they will no longer be forced to operate illegally. Governments in nations where ASM commonly occurs can also help miners' groups to secure mining titles so that the potential of this sector can be fully harnessed to support long term development goals. By so doing governments will be taking advantage of the opportunity that responsible ASM presents to reduce poverty in the developing world.

7.4 SUPPORTING MINERS

ARM and their network of NGOs are leading on the support work with mining organisations to build their capacity and reach the requirements to become Fairtrade and Fairmined certified. On certification the mining organisations can still access support from ARM to ensure they continue to meet the standards and can continue to improve their mining practices and communities. To continue this vital work ARM has established a producer support fund which individuals or organisations can contribute to at **www.communitymining.org**

7.5 FURTHER INFORMATION

To find out more visit either **www.fairtrade.org.uk/gold** or **www.communitymining.org**

GLOSSARY

ARM: The Alliance for Responsible Mining, is a Colombian-based, independent, global-scale, pioneering initiative established in 2004 to enhance equity and wellbeing in artisanal and small-scale mining (ASM) communities through improved social, environmental and labour practices, good governance and the implementation of ecosystem restoration practices. ARM is committed to social justice and environmental responsibility as the values driving the transformation of ASM.

ASM: Artisanal and small-scale mining

Amalgamation: A method of extracting gold from mined ore using mercury to create amalgam which is then decomposed using chemicals, leaving gold.

Bullion: Precious metals in bulk form traded on commodity markets.

Cyanidation: A process where a cyanide solution is used to leach the gold from rock, dissolving it into the water. The gold is then recovered from the solution using activated carbon or zinc.

Doré: An impure alloy of gold produced at a mine that will be refined to a higher purity.

Dual label: The dual label demonstrates to the consumer the partnership between FLO and ARM and clearly indicates the precious metal (i.e. gold, silver or platinum) is certified as Fairtrade and Fairmined, to avoid misinterpretation that the gemstone or other metals are certified Fairtrade and Fairmined. This dual label must be used for both consumer facing packaging materials and any supporting promotional materials.

Dual stamp: A dual stamp has been created for application to the certified gold, silver or platinum product. This stamp is similar in size and method of application to the legally required hallmarks found on precious metals.

Ecological gold: The gold produced by groups with strong environmental management systems and who are not using chemicals is known as ecological gold and carries an additional premium of 5% of the applicable LBMA fix on top of the Fairtrade premium. The additional premium is to recognise the additional costs involved in maintaining environmental controls, and compensating for lower recovery rates than when using chemicals.

Fairtrade Foundation: The UK registered charity and FLO member responsible for licensing use of the FAIRTRADE Mark and increasing consumer awareness and sales of Fairtrade products in the UK.

Fairtrade International (FLO): The international body comprising the Fairtrade Foundation and its partner organisations in producer and consumer countries. FLO is responsible for developing Fairtrade standards and managing producer and trader registers.

FAIRTRADE Certification Mark: This appears on products meeting Fairtrade standards as defined by Fairtrade International (FLO). The FAIRTRADE Mark is a registered trademark and independent product certification label.

Fairmined Mark: This appears on jewellery and products that contain Fairtrade and Fairmined certified gold. It is a trademark of the Alliance for Responsible Mining (ARM), and an independent product certification label.

FLO-CERT: FLO-CERT GmbH is an independent international certification company offering Fairtrade certification services to clients in more than 70 countries. They assist in the socio-economic development of producers in the global south and help to foster long-term relationships and good practice with traders of certified Fairtrade products. FLO-CERT certification provides a guarantee to consumers of certified Fairtrade products that they are contributing to the socio-economic development of people through their purchases.

Gravity separation/concentration: A process carried out to concentrate gold using the difference of specific gravity of gold and other minerals. Because gold has a higher gravity than other minerals, it settles faster in water. Gravity concentration is carried out using pans, sluices, shaking tables and centrifuges.

LBMA: London Bullion Market Association is the London-based trade association that represents the wholesale market for gold and silver in London, and sets world prices.

LBMA fix: The LBMA set a price for gold in the morning and afternoon. These prices are known as either the LBMA am fix or LBMA pm fix.

NGO: Non-governmental organisation.

Ore: Mineral (rock or gravel) which contains gold at an economic concentration (grade) and that is therefore suitable to be processed.

SOTRAMI: The mining organisation Sociedad de Trabajadores Mineros S.A.

Tailings: Rock, sands and muds left over from mineral processing containing varying concentrations of gold and toxic chemicals. Tailings are deposited at tailings dumps or in tailings ponds. Often artisanal miners reprocess tailings to recover remaining gold.

REFERENCES

1 International Labour Organisation, Report for discussion at the Tripartite Meeting on Social and Labour Issues in Small-scale mines, by N Jennings, 1999

2 UNIDO, Protocols for Environmental and Health Assessment of Mercury Released by Artisanal and Small-Scale Gold Miners, M Veiga and R Baker, 2004 and Fairtrade Foundation and Alliance for Responsible Mining, Product Rationale Paper on fairtrade-labelling of artisanal gold and precious metals by-products, 2006

3 Alliance for Responsible Mining, Rock Solid Chances for responsible artisanal mining, Felix Hruschka, ARM Series on Responsible ASM No 3, 2011

4 World Gold Council supply and demand statistics, www.research.gold.org/supply_demand/, 7 Jan 2011

5 Ibid

6 Ibid

7 Kitco, 2010, www.kitco.com/charts/popup/au3650nyb.html , 8 Dec 2011

8 World Gold Council supply and demand statistics, www.research.gold.org/supply_demand/, 7 Jan 2011

9 Ibid

10 Assay Office, Dec 2010, http://www.theassayoffice.co.uk/uk_hallmarking_figures_trends.html

11 Ibid

12 For further information on conflict diamonds see www.globalwitness.org

13 For further information about the Kimberley Process see www.kimberleyprocess.com

14 See www.cafod.org.uk/unearthjustice and www.nodirtygold.org

15 UNEP/OCHA, 2000, The Cyanide Spill at Baia Mare, Romania: Before, During and After, http://archive.rec.org/REC/Publications/CyanideSpill/ENGCyanide.pdf, 10 Jan 2011

16 CAFOD, Unearth Justice: Counting the Cost of Gold, 2006, No Dirty Gold, Dirty Metals: Mining Communities and the Environment, 2005, Human Rights Watch, The Curse of Gold, 2005

17 The Golden Vein: A Guide to Responsible Artisanal and Small Scale Mining. Collective authorship. ARM Responsible ASM Series No 1, English Edition, Medellin, 2008

18 CAFOD, Good bling not bad bling says British public, 2006

19 Globescan, Fairtrade Foundation Commissioned Research, 2009

20 For more information about the Responsible Jewellery Council see www.responsiblejewellery.com and about the Initiative For Responsible Mining Assurance see www.responsiblemining.net

21 World Gold Council, Recycled Gold, www.gold.org/search/?q=recycled+jewellery, 7 Dec 2010

22 Alliance for Responsible Mining, Rock Solid Chances for responsible artisanal mining, Felix Hruschka, ARM Series on Responsible ASM No 3, 2011

23 Fairtrade Foundation and Alliance for Responsible Mining, Product Rationale Paper on fairtrade-labelling of artisanal gold and precious metals by-products, 2006

24 International Labour Organisation, Report for discussion at the Tripartite Meeting on Social and Labour Issues in Small-scale mines, N Jennings, 1999

25 Alliance for Responsible Mining, Rock Solid Chances for responsible artisanal mining, Felix Hruschka, ARM Series on Responsible ASM No 3, 2011

26 For further information see CAFOD, Unearth Justice: Counting the Cost of Gold, 2006, and www.cafod.org.uk/unearthjustice and No Dirty Gold, Dirty Metals: Mining Communities and the Environment, 2005 and www.nodirtygold.org

27 UNIDO, Protocols for Environmental and Health Assessment of Mercury Released by Artisanal and Small-Scale Gold Miners, M Veiga and R Baker, 2004 and Fairtrade Foundation and Alliance for Responsible Mining, Product Rationale Paper on fairtrade-labelling of artisanal gold and precious metals by-products, 2006

28 Alliance for Responsible Mining, Rock Solid Chances for responsible artisanal mining, Felix Hruschka, ARM Series on Responsible ASM No 3, 2011

29 Alliance for Responsible Mining (ARM), Fairmined® gold and mercury use by artisanal miners? ARM's position: no contradiction, ARM Responsible ASM Series No 2, 2009

30 Fairtrade Foundation and Alliance for Responsible Mining, Product Rationale Paper on fairtrade-labelling of artisanal gold and precious metals by-products, 2006

31 World Gold Council www.gold.org/faq/start/50/

32 Alliance for Responsible Mining, Rock Solid Chances for responsible artisanal mining, Felix Hruschka, ARM Series on Responsible ASM No 3, 2011

33 International Labour Organisation, Report for discussion at the Tripartite Meeting on Social and Labour Issues in Small-scale mines, N Jennings, 1999

34 Alliance for Responsible Mining, Rock Solid Chances for responsible artisanal mining, Felix Hruschka, ARM Series on Responsible ASM No 3, 2011

35 Fairtrade Foundation and Alliance for Responsible Mining, Product Rationale Paper on fairtrade-labelling of artisanal gold and precious metals by-products, 2006

36 Ibid

37 Alliance for Responsible Mining, Rock Solid Chances for responsible artisanal mining, Felix Hruschka, ARM Responsible ASM Series No 3, 2011

38 Mercury and Small Scale Gold Mining – Magnitude and Challenges Worldwide, presentation by Dr Kevin Telmer, Global Mercury Project, 2007

39 Fairtrade Foundation and Alliance for Responsible Mining, Product Rationale Paper on fairtrade-labelling of artisanal gold and precious metals by-products, 2006

40 Mercury and Small Scale Gold Mining – Magnitude and Challenges Worldwide, presentation by Dr Kevin Telmer, Global Mercury Project, 2007

41 Alliance for Responsible Mining (ARM), Fairmined® gold and mercury use by artisanal miners? ARM's position: no contradiction, ARM Responsible ASM Series No 2, 2009

42 From Oro Verde film, The Most Loved Gold in the World www.greengold-oroverde.org/loved_gold/

43 ARM-FLO, Fairtrade and Fairmined Standard for gold from artisanal and small-scale mining, including associated precious metals, March 2010

44 For specific details on responsible ASM see The Golden Vein: A Guide to Responsible Artisanal and Small Scale Mining, Collective authorship. ARM Responsible ASM Series No 1. English Edition, Medellin, 2008, and the gold standard, Fairtrade and Fairmined Standard for Gold from Artisanal and Small-Scale Mining Including Precious Metals see www.fairgold.org 2010.

45 Physical traceability costs in the range of 1% to 2% of the average LBMA price are considered tolerable, as in exchange miners' organisations receive a 10% Fairtrade premium. If physical traceability costs are higher, then miners' organisations are exempt from physical traceability but are still required to provide full documentary traceability. For traders, refiners and manufacturers, if the cost differential exceeds 2% of the average LBMA price, the operator is allowed to use an alternative, lower-cost process. For more detailed information on what this means and the traceability requirements for other Fairtrade certified products visit www.fairtrade.net.

46 See ARM-FLO, Fairtrade and Fairmined Standard for gold from artisanal and small-scale mining, including associated precious metals, www.fairgold.org, March 2010 and Alliance for Responsible Mining (ARM), Fairmined® gold and mercury use by artisanal miners? ARM's position: no contradiction, 2009 www.communitymining.org/index.php/en/our-publications

47 Alliance for Responsible Mining (ARM), Fairmined® gold and mercury use by artisanal miners? ARM's position: no contradiction, 2009

48 Ibid

49 For further information on the Oro Verde programme see www.communitymining.org and www.greengold-oroverde.org/loved_gold/

50 From Oro Verde film, The Most Loved Gold in the World www.greengold-oroverde.org/loved_gold/

51 For further information about SOTRAMI see www.communitymining.org

52 Alliance for Responsible Mining, Rock Solid Chances for responsible artisanal mining, Felix Hruschka, ARM Responsible ASM Series No 3, 2011

53 Ibid

FAIRTRADE FOUNDATION

Fairtrade Foundation, 3rd Floor, Ibex House,
42-47 Minories, London EC3N 1DY
T: +44 (0) 20 7405 5942 F: +44 (0) 20 7977 0101
W: www.fairtrade.org.uk

Alliance for Responsible Mining

Alliance for Responsible Mining
Calle 32B Sur No 44ª-61, Envigado, Colombia
T: +(574) 332 47 11
W: www.communitymining.org

Product code: GOLDREP