

Fairtrade Gold: an industry briefing

A Fairtrade Foundation report
January 2015



FAIRTRADE GOLD

Mending the wealth paradox

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GOLD FACTS

- 100 million people worldwide depend on artisanal and small-scale mining (ASM) for survival.ⁱ
- There are around 16 million artisanal and small-scale gold miners globally, producing some 380-450 tonnes of gold.ⁱⁱ
- Artisanal and small-scale miners account for 10% of the global gold supply and 90% of the labour force in gold extraction.ⁱⁱⁱ
- Artisanal and small-scale miners are characterised by high levels of poverty.
- In 2013, 2,968 tonnes of gold were extracted from the earth, which accounts for over two thirds of the world's total gold supply. 2,209 tonnes were used to make jewellery.^{iv}
- In 2013 the annual gold demand of 3,756 tonnes was valued at US\$170 billion.^v
- In 2013, \$100 billion (£63 billion) was spent on gold jewellery globally.^{vi}
- The internationally agreed price of gold is set twice a day by the London Bullion Market Association (LBMA).
- The price of gold rose from US\$256 in 2001 to over US\$1895 per ounce in 2011.^{vii}
- The cumulative average price of gold in 2013 was US\$1,411.^{viii}
- For Fairtrade gold, miners receive a Fairtrade Premium of \$2,000 per kilogramme of fine gold on top of the guaranteed Fairtrade Minimum Price (95% of LBMA), which can be used to invest in their community or business improvement.
- For Fairtrade ecological gold that has been produced without the use of chemicals, miners get an extra 15% on top of the guaranteed minimum price.

EXECUTIVE SUMMARY

Gold: a 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. Sixteen million men, women and children work in harsh conditions, doing backbreaking work to scrape a living. They produce 380-450 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 ASM 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 sevenfold increase in gold prices between 2001 and 2011 has driven 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.

Furthermore, 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 has been at the forefront of changing this narrative through the licensing and labelling of Fairtrade certified gold jewellery and other items. 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.

Fairtrade International has developed a set of clearly defined standards for responsible ASM, which must be met by mining organisations in order to achieve Fairtrade certification. The original Fairtrade and Fairmined Standard, developed with the Alliance for Responsible Mining (ARM), was tested with nine miners' organisations in Bolivia, Colombia, Ecuador and Peru, in a process that helped them to formalise and improve their mining and business practices. The standard was revised in 2013 when the pilot partnership between Fairtrade International and the Alliance for Responsible Mining came to an end, and is now open to organisations across the globe.

Fairtrade certified mining organisations are proof that with the right training and support it is possible to significantly improve standards around working conditions, child labour, women's rights, cleaner technology, health and safety, management of chemicals and responsibility to the environment in the ASM sector. Meeting all of these requirements means their gold can be Fairtrade certified and sold to international markets on Fairtrade terms.

Fairtrade terms mean that miners receive a Fairtrade Premium of \$2,000 per kilo on top of the guaranteed Fairtrade Minimum Price (95% of LBMA), which is invested into improving their business or for community development projects. Those miners' organisations that produce their gold without the use of mercury or cyanide can earn a higher 'ecological premium' of 15% to recognise the additional costs involved in using cleaner technologies and protecting the environment.

Fairtrade certified gold travels through fully transparent and traceable supply chains, meaning that consumers and retailers can have confidence that artisanal and small-scale miners are getting a fair deal and that their gold has been produced according to the most responsible mining practices.

But this is just the start of the journey. 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. Fairtrade certified gold has the potential to enable thousands more artisanal miners to escape from unfair supply chains and dangerous working conditions.

Expanding support to miners' organisations so that they can achieve Fairtrade certification and encouraging more retailers to stock Fairtrade 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 ASM sector.

1. ALL THAT GLITTERS? THE GOLD INDUSTRY

The global gold market is a big and fast growing business. Consumers around the world bought 3,864 tonnes of gold in 2013, 21% more than in the previous year. Jewellery demand was back up to almost pre-2008 financial crisis levels, rising by 17% to 2,209 tonnes, while investment in bars and coins was up by 28% to 1,654 tonnes.^{ix}

Consumers remain key drivers in the demand for gold. The increase has been remarkably strong in newly industrialised countries. Consumer demand in China rose by 32% in 2013 to a record level of 1,066 tonnes, while in India it rose by 13% to 975 tonnes. China is now the world's largest gold market.^x

The average price of gold in 2013 was US\$1,411/oz and over \$100 billion (£63 billion) were spent on gold jewellery in 2013, making it one of the world's largest categories of consumer goods.

Of the total global gold supply in 2013, 2,968 tonnes were newly extracted from the earth and 1,371 tonnes came from scrap. A total of 2,209 tonnes were used to make jewellery. Statistically, this equates to almost 75% of the global demand for newly mined gold, with the remaining 25% used for investment and industrial purposes.^{xi}

In 2013 the four UK Assay Offices hallmarked a total of almost 5 million gold jewellery items.^{xii} Yet despite the public's fascination with gold, it is only in recent years that consumers 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.^{xiii} In 2003 the international diamond certification scheme known as the Kimberley Process was established to help prevent the trade in conflict diamonds.^{xiv}

It is only more recently that there has been focus on the impacts of gold mining in 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.^{xv} Large-scale mine disasters such as the pollution of the Baia Mare River by the Aural Gold Processing Plant in Romania^{xvi} as well as evidence showing how gold mining was funding conflict in the Democratic Republic of Congo caused further concern amongst the general public.^{xvii}

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 certified gold even if meant paying more.^{xviii} 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 Mark.^{xix}

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 (RJC) and the Initiative for Responsible Mining Assurance (IRMA).^{xx} 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 the case that the majority of these initiatives target the large-scale mining sector and fail to address the specific challenges facing artisanal and small-scale miners who make up the majority of the mining workforce.

Using recycled gold is often cited as a more ethical alternative to using newly mined gold. In 2013, a third of the global gold supply came from recycled sources.^{xxi} For the remaining two thirds of gold that must come from newly mined sources, Fairtrade is a responsible way to ensure minimum environmental impacts and maximum social and economic benefits to artisanal miners and their communities.

2. ARTISANAL AND SMALL-SCALE MINING: THE FACTS

ASM is a global phenomenon occurring in at least 70 countries in Africa, Asia and Latin America.^{xxii}

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 formalised mining operations 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. ASM is mostly informal and unregulated, with miners employing rudimentary tools and equipment to mine and process the gold. Miners do not always have the necessary rights to mine, in which case ASM becomes an illegal activity.

However, if miners are able to organise and reinvest in their activities they can move into the formal mining sector, which is legally recognised, more mechanised and more organised, allowing miners to work over a larger and deeper area, and earn a decent living.^{xxiii}

The mostly informal nature of ASM makes it impossible to know the exact number of people involved. It is estimated that there are 16 million artisanal and small-scale miners around the world, and 100 million people that depend directly and indirectly on ASM for their livelihood.

2.1 HOW 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.

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.

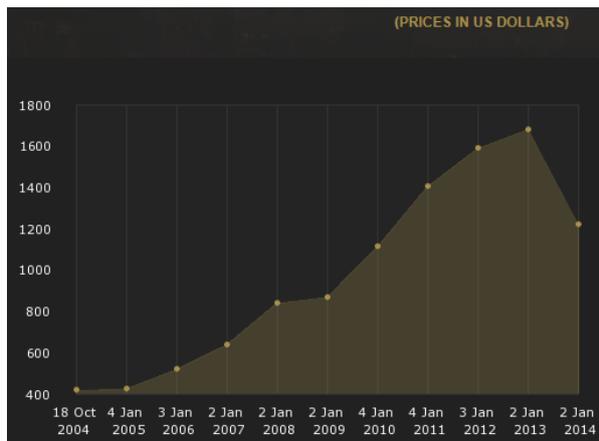
As using cyanide requires substantial investment, special training, a longer processing time, and significant financial capacity, it is less widely used by artisanal and small-scale miners. However when used properly, cyanidation enables miners to eliminate mercury completely and increase their gold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

2.2 SIZE MATTERS: THE DIFFERENCE BETWEEN LARGE-SCALE AND SMALL-SCALE MINING

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.^{xxv}

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 16 million artisanal gold miners globally, producing some 380-450 tonnes of gold. 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.

2.3 THE RISING PRICE OF GOLD



Source: data reproduced with permission of the London Gold Market Fix Ltd.

2.4 CONFLICT MINERALS

Conflict minerals refers to gold, tin, tantalum and tungsten (the 3Ts) which has been sourced, extracted or processed in a situation of armed conflict, and has contributed to financing and abetting armed groups or engendered human rights abuses. Armed conflict may take a local, national or international character or could include wars of liberation, insurgencies or civil wars.

Gold from conflict zones is particularly difficult to trace due to the complexity of the supply chains which can often span several continents and see minerals being smuggled across borders. The high value and low volume of these minerals mean they are relatively easy to transport and hide, fuelling their illicit trade.

The majority of conflict minerals are mined by artisanal and small-scale miners. This is because ASM is often less regulated, informal or illegal, and thus easier to exploit. Armed groups may control a mine site and ask for payments from the miners and the traders, or trade the minerals on the black market directly. The gold is smelted and laundered into world supply chains, and then enters our everyday products.

Fairtrade is an example of a 'closed-pipe' system that establishes traceability of gold through the supply chain. It allows for physical and documentary traceability from mine to retailer via the classical license model; and physical traceability from mine to refiner/fabricator for the mass balance and goldsmiths models, with documentary traceability all the way to end product in the goldsmiths model (see Section 7.4).

Furthermore, recent revisions to the Fairtrade Standard for Gold have aligned the Standard to international legislation on conflict minerals, specifically the OECD Due Diligence Guidance for Responsible Sourcing of Minerals from Conflict-Affected and High-Risk Areas (OECD DDG). The OECD DDG is the first collaborative multi-stakeholder initiative on the responsible management of mineral supply chains from conflict-affected areas, and aims to cultivate transparency and sustainable corporate engagement in addressing the conflict minerals issue.

Through alignment with the OECD DDG, the Fairtrade Standard offers businesses increased assurance against the risk of conflict minerals entering their supply chains, and provides miners with the tools to

identify and address risks in their own operations. This is particularly pertinent to the mines working towards certification in East Africa, where the risk of conflict minerals is deemed to be highest. The Standard alignment is therefore essential to ensuring downstream buyers have confidence in their supply chains, and that East African certified miners have an international market for their gold.

3. FROM MINE TO SHOP: THE GOLD SUPPLY CHAIN

Extracting 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.^{xxvi} 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 as the place where billions of dollars in gold bullion are 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. 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. Fairtrade certification provides this reassurance through independent auditing of mines and other supply chain actors against the Fairtrade Standards, providing consumer guarantee about the source of gold as well as introducing supply chain transparency into an otherwise opaque sector.



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

'It's not easy to be an artisanal miner, it's very hard. It's a very demanding job.'

Manuel Reinoso Rivas, President SONAMIPE (Peruvian National Small-Scale Mining Association)

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.^{xxvii}

The difficulty in getting legal mineral rights means that most ASM is by default informal or illegal. While some countries, such as Peru and Tanzania, have explicit legislation for ASM, in the majority of places the lack of formal regulation of ASM leaves miners vulnerable to exploitation by middlemen and without access to extension services.

'At first we were mining illegally, we were not in groups, we didn't have prospecting rights from the governments. (Now) We have a group of registered members, we have a valid registration certificate, and a valid prospecting right.'

Simon Odoyo – Lolgorian Artisanal Mining, Kenya (pilot group working towards Fairtrade certification)

4.2 DANGEROUS WORKING CONDITIONS

Mining is a high risk activity and miners face a multitude of hazards every day. Due to the informal nature of ASM and the lack of capital investment, most miners are poorly trained, do not use protective clothing 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.^{xxviii} This is mainly because in ASM there is a larger labour force and poorer working conditions. The most common causes of accidents are rock falls, ground collapse, shaft collapse, landslides, faulty machinery and explosive accidents. In addition, poor lighting, ventilation, dust inhalation and noise pollution can lead to a range of health problems, such as silicosis.^{xxix}

There are also 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; as well as birth defects in babies born to mothers who came into contact with mercury during pregnancy. Chronic mercury poisoning can result in speech disturbances, lack of concentration, depression, muscular atrophy and seizures.^{xxx} Treatment for even the most basic ailments is hampered by many mining communities' lack of access to medical facilities.

'The majority of people in our mining areas didn't know the harmful effects of mercury, but after the training we became aware of how to address the effects and protect ourselves – using retorts.'

Peter Obote – Umoja Project, Uganda (pilot group working towards Fairtrade certification)

'My parents work here. My whole family lives here. I've been a pallaquera (woman miner) for two years. 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.'

Jenny Torres Delgado, 27, 'Pallaquera' in Santa Filomena, Peru

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 is 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. Even when 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 and their poor ability to negotiate a fair price. 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, to meet their immediate basic needs. This need to sell on a regular basis prevents them from accumulating larger volumes of gold and attracting higher prices.

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.^{xxxi}

'The middlemen fear that when we are organised it won't be so easy to exploit it – that's why we were so excited when we heard about Fairtrade.'

Josephine Aguttu – Tiira Small-Scale Miners Association, Uganda (pilot group working towards Fairtrade certification)

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 and health impacts of their activity; subsistence is their main concern.^{xxxii}

It is estimated that almost 100% of all mercury used in ASM is released into the environment, which amounts to approximately 1,000 tonnes of mercury per year.^{xxxiii} 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.^{xxxiv} The production of a single 18 carat gold ring generates, on average, 20 tonnes of environmental waste.^{xxxv}

Encouraging the substitution of mercury is a challenge because mercury 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 by individual miners working alone.^{xxxvi}

Many artisanal and small-scale miners aspire to replacing mercury with a cyanide leaching plant which recovers a higher volume of gold, however the technology is costly and requires 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.^{xxxvii}

Alternative methods that negate the use of chemicals include borax and gravimetric concentrators. Borax is a harmless and relatively cheap chemical that replaces mercury at the amalgamation stage, however it requires more sophisticated crushing equipment to produce fine dust particles and this pushes it out of many miners' reach. Similarly gravimetric concentrators which use gravity to separate the gold require investment and a level of organisation within the group to maintain and run.

5. FAIRTRADE GOLD: WHAT IT MEANS

Fairtrade gold is about enabling artisanal and small-scale miners to improve their livelihoods by selling their gold to international Fairtrade markets on Fairtrade terms.

'When we learnt about Fairtrade we developed a new method. We now know how to make and keep our daily records, make the environment clean inside the pit, use safety gear e.g. gloves, gumboots. We know our life will change after getting certification. We will come with one voice all over Kenya as ASM miners to reach national levels. We expect our community will grow better with the premium money that will come from Fairtrade buyers. We will not have any brokers or middlemen in our supply chain. Congratulations to Fairtrade International for making us improve our lives.'

Simon Odoyo – Lolgorian Artisanal Mining, Kenya (pilot group working towards Fairtrade certification)

5.1 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.

5.2 FAIRTRADE INTERNATIONAL & FLOCERT

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

FLOCERT is an independent international certification company who audit and independently certify producers and miners against Fairtrade Standards, including the Fairtrade Standard for Gold and Associated Precious Metals for Artisanal and Small-Scale Mining.

Fairtrade International has 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.^{xxxviii}

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 certification. The organisation must be legally entitled to mine and is responsible for all mining activities within its mining area.

Mining organisations are audited annually by the independent international certification body FLOCERT to ensure they are complying with the standards. Certified gold is stamped with the FAIRTRADE Certification Mark. It is the first ever independently certified fairly traded gold for the jewellery market.

5.3 FAIRTRADE: A BETTER DEAL FOR MINERS

Like producer organisations certified for other Fairtrade products, mining organisations and their communities are guaranteed a better deal for the goods they produce. 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 based on the London Bullion Market Association's (LBMA) fix, the internationally agreed price of gold as it is traded on the international markets. Certified miners receive a minimum of 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 they receive. This is calculated as \$2,000 per kilo on top of the applicable LBMA fix, for investment in democratically agreed economic, social or environmental improvements of the miners' choice. Gold produced without the use of chemicals carries a higher Premium of 15% of the LBMA fix.

5.4 FAIRTRADE: RESPONSIBLY MINED GOLD

The FAIRTRADE Mark ensures that gold has been mined, processed and traded in a fair and responsible manner. This means:

- **Strengthened miners' organisations:** Through organisation, 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 their 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 mining organisations to be Fairtrade certified, 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, no under 18s should be employed for any type of work which could jeopardise their health or safety. Fairtrade certified mining organisations are further supported to monitor and remediate risks around child labour and child protection in their communities in a community-based, youth-inclusive way.
- **Improved working conditions:** Fairtrade 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.

5.5 AN ECOLOGICAL PREMIUM

Miners can earn an additional ecological premium when they recover gold 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 15% of the applicable LBMA fix not only as a reward for producing gold meeting higher standards, but also partly to recognise that not using chemicals means that miners sacrifice productivity and recover less gold as a result.

5.6 TRACEABILITY OF THE SUPPLY CHAIN

Fairtrade certified gold offers transparent and traceable supply chains 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 Standards.

Certified jewellery products will be stamped with the FAIRTRADE Mark to show the gold has been carefully extracted by mining organisations that meet the requirements of the Fairtrade Standard for Gold. 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 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.^{xxxix} Physical traceability for Fairtrade ecological gold that receives the ecological premium is compulsory at all times.

5.7 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.

Fairtrade recognises that child labour is a reality for many mining communities. In countries where there is a known risk of child labour in ASM, Fairtrade certification requires that artisanal mining organisations monitor, identify and address the risks within their mines and communities in a youth-inclusive, community-based way. Fairtrade supports them in this process by providing expert training and support. Fairtrade certified mining organisations must also commit to standards, which mean children under 15 years cannot work in mining and must be over 18 to work underground.

5.8 MERCURY USE

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

Although elimination of the use of mercury in responsible ASM mining is an important goal, the total and immediate elimination of mercury is not a realistic condition at the point of Fairtrade certification. Despite the human health and environmental risks use of such chemicals presents, if it were included as a pre-condition of certification then 95% of all ASM would be excluded from the long-term development opportunity offered by Fairtrade.

Instead the Standard sets out strict controls on the use of harmful chemicals at the point of certification. The greatest harm caused by mercury occurs as a result of 'whole ore amalgamation', where mercury is added without reducing the ore to a concentrate first; and when the amalgam is burnt in the open air without using a device to recover the mercury (for example a retort).

The Fairtrade Standard therefore requires miners to use a concentration process such as gravity separation, flotation or hand-sorting, prior to amalgamation; and makes the use of retorts or other mercury recovery devices during amalgam burning obligatory. Both requirements ensure that mercury emissions are drastically reduced by up to 90%.^{xi} In addition, a higher ecological premium is offered for mining organisations who eliminate mercury and cyanide altogether using only gravimetric methods for gold recovery, and develop low impact mining.

In addition, the standard sets out a process to support ASM organisations to implement responsible practices and alternative technologies that minimise the use of mercury over an agreed period of time and reduce impact on the environment and human health. Mining organisations must also engage their wider community in sensitisation campaigns to increase general awareness of the risks of unsafe mercury use among workers and families outside of their operation.

5.9 CYANIDE USE

While mercury amalgamation is a low-cost and speedy process that can be carried out by individual miners with low intensity equipment and investment, 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 if they organise and obtain the necessary finance to invest in 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 such as cyanidation.^{xli}

6. WHAT DIFFERENCE HAS FAIRTRADE 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

There are currently two miners' organisations, representing approximately 400 miners and their families, that are Fairtrade certified. These mines (SOTRAMI and AURELSA in Peru) were part of the pilot phase of developing and testing the Fairtrade and Fairmined Standard. Fairtrade is also working to improve the lives of some 1,000 miners and their dependents in East Africa and there are plans for expansion into Asia. Applications for Fairtrade certification are open to all ASM organisations globally.

6.1 SOCIEDAD DE TRABAJADORES MINEROS S.A. (SOTRAMI), PERU^{xliii}

'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 46 kilogrammes 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. 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. Fairtrade Premium has already been invested in improving primary and secondary education, improving access to electricity in local health clinics and homes, and supporting school children to engage in learning trips around

the local area. The local community was relocated away from the mine site in order to improve health and safety conditions for residents and they have plans to continue to improve their village with Fairtrade Premium.

6.2 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.^{xliii} 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.^{xliiv}

6.3 FAIRTRADE GOLD IN EAST AFRICA

'Moving from old to new ways of doing mining has been transformational. Previously each and every miner worked on his own. Today we are privileged to do it collectively, where we mine as a group, we process our ore together as a group and we sell the same as a group.'

Dan Odiba – Micodepro, Kenya (pilot group working towards Fairtrade certification)

Having launched the Fairtrade gold programme in Latin America in 2011, Fairtrade has been working with artisanal miners in Kenya, Tanzania and Uganda since 2012 in a pilot programme to certify the first African artisanal mining organisations and secure the first Fairtrade certified gold from Africa. The three-year programme, funded by a grant from Comic Relief, aims to support miners to formalise, legalise and introduce safer mining techniques that will bring them into line with the Fairtrade Standard for Gold and Precious Metals for Artisanal and Small-Scale Mining.

The challenges facing artisanal and small-scale miners in Africa are particularly acute. Mining organisations in the three countries covered by the project are highly informal, with very low levels of mechanisation, little health and safety, and endemic use of mercury of the most dangerous kinds (pre-concentration amalgamation, open-air burning and burning in homes, and disposal of contaminated water into local waterways). In return for this highly dangerous work, miners are regularly underpaid by local traders who exploit their lack of formalisation and market knowledge, giving them as little as 65% of the international market price for their gold.

Artisanal gold miners in East Africa can therefore benefit hugely from an intervention such as Fairtrade, which provides them with the support necessary to formalise, legalise, improve conditions around their mines and communities and sell their gold to international markets on Fairtrade terms. In just two years of the Fairtrade project, there has been a significant improvement in the working practises of the miners, with all of them legally formed into groups and operating as coherent units rather than individual miners.

The project already improved their trading positions as they are less vulnerable to exploitation when they sell as a group. It has also helped to spread awareness and better practice in the areas of health and safety, mercury use and the prevention of child labour. Once certified, the Fairtrade Premium will bring much-needed investment to poverty-stricken communities in the form of improved infrastructure and amenities.

We expect to see the first East African groups enter the Fairtrade system in 2015, subject to their initial certification audit.

7. SUPPORTING FAIRTRADE GOLD

Fairtrade gold has the potential to reach thousands more artisanal and small-scale miners worldwide. Fairtrade gold was first launched in 2011 in the UK, Canada and Denmark, closely followed by launches in Australia, Belgium, Ireland, Luxembourg, Netherlands, Norway, South Korea, Sweden and Switzerland. Discussions are currently underway to introduce certified gold in Germany, Italy and the United States of America. The long term vision for Fairtrade 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 certified gold are at the forefront of a growing movement of responsible companies and individual jewellers looking for ways to improve the ethical credentials of the jewellery industry and provide their customers with reassurance as to the provenance of their gold. 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 gold is for consumers to demand it when they shop for jewellery. Next time you make a special purchase, choose Fairtrade gold 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 gold. Find out more at www.fairgold.org/where-to-buy.

7.3 GOVERNMENTS

While Fairtrade certification is one approach to addressing the challenges of ASM, there is also an urgent need to engage governments and call for greater support and 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 programmes 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 FAIRTRADE GOLD BUSINESS MODELS

Fairtrade has combined its long experience in value chains with specific knowledge of the gold sector to develop three distinct models to suit the needs of businesses of all sizes. The purpose of the three models is to facilitate easier access to Fairtrade gold for both jewellers and other gold-using companies, and ultimately consumers, and thereby increase the impact of Fairtrade gold through greater sales and benefits for certified miners. The three business models are as follows:

1. **Classic licence model:** This model provides full physical and documentary traceability throughout the supply chain from certified mine all the way to the customer. Final products

are stamped with the FAIRTRADE Mark to demonstrate physical traceability back to the certified mine and compliance with the Fairtrade Standards. All operators in the supply chain are audited by independent third-party auditor FLOCERT. The model is open to any business or operator.

- 2. Goldsmiths Registration Scheme:** This model is available to metalsmiths using less than 500 grams of gold or platinum, or 2 kilogrammes of silver per annum. There is full physical traceability from certified mine to the manufacturer/distributor, with documentary traceability from that point until the final customer. The final product is not stamped with the FAIRTRADE Mark and registered goldsmiths can make limited claims about the use of Fairtrade gold in their jewellery. It is free to join (find out more here: www.fairgold.org/goldsmiths-registration.)
- 3. Gold Sourcing Program:** This model is open to luxury jewellery and watch brands, electronics companies and the investments sector with large volume needs. There is physical and documentary traceability up to the point of refining, where mass balance with non-certified metals occurs. The final product is not stamped with the FAIRTRADE Mark and companies can make optional corporate claims relating to volumes of metal purchased from Fairtrade sources on Fairtrade terms.

GLOSSARY

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.

Ecological gold: The gold produced by groups with strong environmental management systems and who are not using chemicals. It carries a higher premium of 15% of the applicable LBMA fix. The higher 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 Fairtrade International member responsible for licensing use of the FAIRTRADE Mark and increasing consumer awareness and sales of Fairtrade products in the UK.

Fairtrade International: A multi-stakeholder, non-profit organisation focusing on the empowerment of producers and workers in developing countries through trade. It provides leadership, tools and services needed to connect producers and consumers, promote fairer trading conditions and work towards sustainable livelihoods.

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

FLOCERT: An independent international certification company offering Fairtrade certification services to clients in 115 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. FLOCERT 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.

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