From Child Miner to Jewelry Store

The Six Steps of Congo's Conflict Gold

Enough Team October 2012

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The project to end genocide and crimes against humanity

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This is the first of two papers on the illegal conflict-gold trade from eastern Congo that is fueling one of the most violent conflicts in the world. This paper tracks the transnational trade from mines in eastern Congo to consumers. The second paper will map a way to resolve this problem by setting out recommendations to formalize the trade, cut down conflict-gold smuggling, and create jobs to provide living wages to Congolese miners.

Executive summary

The conflict-gold rush is thriving in eastern Congo. Because of its skyrocketing price and the ease of smuggling it in small pouches for extremely high profits, gold has become the most lucrative conflict mineral for armed groups in eastern Congo. More than $600 million worth of gold is estimated to leave Congo every year, and armed groups are funding their operations through control of a significant percentage of that amount.[1] As U.S. legislation and supply-chain pressure from tech companies have made it more difficult for them to sell the more cumbersome so-called 3-T minerals—tin, tantalum, and tungsten—rebels and army commanders have increasingly turned to gold.[2]

Guided by war criminal Gen. Bosco "The Terminator" Ntaganda, who is the subject of an International Criminal Court arrest warrant, the leaders of the new Rwandan-supported M23 rebellion ran an extensive conflict gold smuggling ring in 2011 but was disrupted from this in mid-2012 following Ntaganda's defection from Congo's army. M23 is now attempting to retake control of the trade, as it builds alliances with the warlords in control of gold mining areas. Other warlord groups, from the Rwandan Hutu Democratic Forces for the Liberation of Rwanda to Congolese army generals, have also mined and smuggled gold and continue to trade gold for arms. As the price of gold has hit record levels over the past five years, new gold mines filled with child miners as young as 8 years old have sprung up in Congo, and armed groups are fighting over mines and trading routes.

SASHA LEZHNEV/ENOUGH PROJECT

A major gold trader in the region was frank with us: "There are so many militaries, FDLR, Mai Mai groups who take taxes and trade in gold. Sometimes you just have to close your eyes to what is going on.

There is a six-step process for getting conflict gold from mines in eastern Congo into its final form: jewelry or gold bars for investors. At the mines, the gold is mainly dug up by hand with pick-axes and shovels in dangerous shafts as far as 100 yards into the earth. Fewer than 5 percent of miners are registered with the authorities, and an estimated 40 percent are children.[3] Armed groups and/or army commanders control a majority of mines, forcing miners to work, taking cuts from the miners, and/or taxing traders along supply routes. An estimated 5 tons to 7 tons of gold are produced in the Kivu region of eastern Congo annually—worth between $285 million and $400 million, a large percentage of which ends up in the hands of armed groups that target civilians with rape, murder, and other abuses.[4]

From the 15 major mines in the Kivu region, the gold is mainly sold to smugglers, who illegally transport 99 percent of it out of the country. The smugglers carry the gold by hand in briefcases to neighboring Uganda, Burundi, and Tanzania and then take it to Dubai. In Dubai the gold is bought by cash-for-gold dealers, and then it reaches a fork in the road: It is either processed at a refinery (smeltered) to be sold in to Europe, or it is made into jewelry for sale in the Middle East, China, and India. Refiners sell the smeltered gold primarily to banks in Switzerland to be held in vaults for investors or jewelers. Worldwide, jewelers and investors together account for 80 percent of gold consumption; roughly 10 percent of gold is used in electronics, and central-bank purchases, dentistry, and industrial uses make up the other 10 percent.[5]

This supply chain is not always linear, as gold can be melted down several times, and firms generally source from several suppliers. But these six steps represent the main path for Congo's conflict gold, a trade that is tightly controlled close to its source by a few powerful individuals. The supply chain has some key choke points, however, that can be exploited for a possible solution to the conflict—namely, the large mines, the Dubai refiners, and the handful of large smugglers in Congo and neighboring countries.

1. Gold mines: Child miners and soldiers

2. Congolese smugglers: Paying off the warlords

3. Regional smugglers: Carrying gold in brief-cases from Uganda, Burundi, and Tanzania

4a. Cash-for-gold dealers and refiners: melting centers in Dubai

4b. Jewelers in the Middle East and India

5. Banks: Holding gold for investors in Switzerland

6. Jewelry stores: On to the consumer

In contrast to the progress on reducing militias' profits from the 3-T minerals, few inroads have been made in stemming the conflict-gold trade. The Dodd-Frank legislation and electronics-industry audits led to a 65 percent drop in armed groups' profits from the 3-Ts and have spurred reforms by governments and companies.[6] The conflict-gold trade, however, has increased over the same period rather than decreased: Fighting in and around gold mines continues; mines are at full production; the Rwandan Hutu Democratic Forces has begun trading gold again; and the M23 rebels are attempting to take over gold-trading areas in North Kivu and Ituri. As a civil society leader in eastern Congo told the Enough Project, "For now, there is no pressure on gold dealers at all … No one cares where the gold comes from."[7] Building on the 3-T legislation, some companies are starting to pay attention. Some mining companies are undertaking audits, with banks auditing refiners beginning in 2013, and jewelers are putting conflict-gold policies in place. But conflict gold is still flowing from Congo unabated. The following report is an outline of the supply chain.

Gold mines: Child miners and soldiers

Eastern Congo's gold mines are among the most abusive and dangerous places to work in the world. Gold miners have no health or safety standards because the mines and the trade are unregulated by Congo's government. Because they are physically small enough to climb into tiny mine shafts, children make up an estimated 40 percent of the miners and can be as young as 8 years old.[8] They are joined by crews of former militia fighters and young men, digging shafts up to 100 yards deep.[9]

Collapses in the shafts kill hundreds of workers every year. An accident in August, for example, left 60 miners dead.[10] Mercury is also used at and around the mines without gloves or safety protection, and miners are often poisoned by inhaling mercury vapors.

The surrounding populations also can suffer mercury poisoning by consuming fish from the contaminated streams and rivers close to the mines.[11] Malnutrition, physical injury, and lack of clean water and medical services compound the health and safety concerns of miners.[12] Nearly all of the gold in the Kivu region of eastern Congo is mined artisanally—by hand, pick-axe, and shovel—and fewer than 5 percent of the miners are registered with the authorities.[13] There is one exception to this: The Canadian/South African company Banro is producing gold at one industrial mine, and both it and a South African consortium are separately planning production at two other mines next year. These mines appear to be conflict-free, but both companies have had issues working with local communities. Banro is currently benefitting from a 10-year tax break from the Congolese government. Whether industrial mining helps or harms eastern Congo will depend on how companies interact with communities and help artisanal miners, meet key standards, exclude warlords, and operate transparently.

Gold in the Kivu regions

There are 15 major gold mines in the North and South Kivu provinces of eastern Congo, and some 70 to 100 smaller mines.[14]

The majority of the conflict-gold mines are in South Kivu, making up approximately 50 percent of Congo's overall gold production.

Exact figures on Congo's total gold production are not available since the trade is conducted primarily through smuggling, but based on traders' and researchers' estimates, Congo produces approximately 11 tons to 15 tons of gold per year, worth between $627 million and $855 million. This accounts for between 5 percent and 8 percent of the world's artisanally mined gold and 1 percent of the global supply of mined gold.[15]

The Kivu regions produce approximately 5 tons to 7 tons annually, worth between $285 million and $400 million at today's prices.[16]

There are also hundreds of child soldiers involved in the gold trade. When the Enough Project asked a room full of former child soldiers at a local rehabilitation center who among them had been involved in the gold trade, the vast majority of the children ages 11 to 16 raised their hands.

The chief reason for the abhorrent conditions is the control of the trade by armed groups and their criminal networks, including the former National Congress for the Defense of the People—which is now part of M23—as well as the Rwandan Hutu Democratic Forces, Mai Mai armed militias, and Congolese official army commanders.

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You see, this brighter gold comes from Lugushwa, and the other comes from Namoya. It is easy to tell the difference in the quality," said George, a gold dealer.

There has been limited improvement in some gold mines—one demilitarized mine was identified in 2011—but according to the U.N. Group of Experts, "Gold is among the main sources of financing most readily available to armed groups."[17] U.N. investigators confirmed this trend in a September 2012 report.[18]

Armed groups control a majority of the trade through four main means: taxation, protection, commercial control, or coercive control.[19] Taxation is done by collecting fees from miners at mines or roadblocks. Protection involves extorting money from mine managers with the threat of violence to them or their operations. Armed groups exercise commercial control by buying and selling close to the mines and owning gold-processing machines. Coercive control is carried out by pillaging mines or forcing miners to work exclusively for the armed group for a certain number of days each week. General Ntaganda, who has since mutinied from the army to start a rebellion, ran an extensive gold-smuggling network in 2011 worth tens of millions of dollars from mines in Walikale, Numbi, and Rubaya. This included the attempted sale of a $27 million lot of gold to three Houston-based businessmen, allegedly brokered by former basketball star Dikembe Mutombo.[20]

Armed groups—often battlefield enemies—continue to trade gold for weapons, including the Rwandan Hutu Democratic Forces trading with the Congolese army, Mai Mai militias trading with the army, and M23 trading with the Rwandan Hutu Democratic Forces.[21]

The United Nations has stated that, "According to local leaders in one remote area, the first thing newly arrived [Congolese army] officers often ask them is "Where are the mines?'"[22] The Rwandan Hutu Democratic Forces and allied Mai Mai militias until mid-2011 controlled a large number of mines and trading routes in Lubero, Fizi, Shabunda, Mwenga, and Walikale,[23] but was displaced from its bases in late 2011 by Congolese/U.N. military operations. It has since moved back into some gold-mining areas.

Congolese army officers continue to profit by controlling mines in North and South Kivu and extorting bribes from exporters in the gold trading cities of Butembo, Beni, and Bukavu. For example, General Gabriel Amisi's troops forcibly took over the important Omate gold mine in 2010 to install a company from which he was to take 25 percent of the profits, beat up local civilians who protested the move, and moved to control several minerals pits in Walikale.[24] Army officers are also involved in a trade in counterfeit gold worth millions of dollars, whereby real gold is used to lure buyers, who are then given up to 400 kilograms of fake gold.[25] Gold is also reportedly financing Burundian rebels, who are potentially looking to destabilize that country.[26]

Local smugglers in Congo

A handful of local smugglers in eastern Congo who work with armed groups and regional smugglers control the trade by pre-purchasing gold directly from the mines. Known locally as comptoirs, local smugglers send their traders to the mines with large amounts of cash, and the traders then transport the gold back to three main towns: Bukavu, South Kivu or Butembo, and Beni, North Kivu. The local smugglers exporters have working relationships with one or more armed groups for protection of mines and transport routes. As Jacques, a former rebel told Enough, "[As a rebel], you have to work with certain sellers who help you sell the gold. You can't sell it yourself because the bigger traders would think that you'd kill them."[27] A gold exporter then told Enough, "I can no longer visit the villages. They will kill me."[28] As a civil society leader later explained, "That is because he [the trader] has been trading gold with the [Rwandan Hutu Democratic Forces] for years. The communities hate him for that; he brought them war."[29] Because of these close relationships, exporters are generally aware of the sources of their gold and can identify the mines of origin due to differences in quality and purity from the different mines. The local smugglers then aggregate the gold from different mines through rudimentary refining.

The largest exporter in South Kivu is Etablissement Namukaya, locally known as CongoCom. Namukaya has been documented by the United Nations to have bought gold from the M23-linked Mai Mai Sheka rebel group—which allegedly orchestrated the rape of 387 people in 2010[30]—the Rwandan Hutu Democratic Forces, and other Mai Mai groups.[31] Its director, Evariste Shamamba, also owns an airline that transports gold from mines to Bukavu.[32] A Namukaya representative admitted that its due diligence consisted solely of buying "from areas where it is safe to land a plane."[33]

The trade in North Kivu was controlled by Ugandan-linked Kambale Kisoni until his murder in 2007, but trader Kasereka Maghulu appears to be taking over Kisoni's former position in Butembo.[34] Maghulu also operates an airline that regularly flies to remote areas in Congo.[35] The Butembo-Beni trade has links to Mai Mai Lafontaine, the Rwandan Hutu Democratic Forces, the Congolese army, the Allied Democratic Forces—a Ugandan rebel force—and other local armed groups.[36]

A smaller amount of gold is bought by individual traders, negociants, who sell it to other traders to smuggle out of the country. This petty trade is highly risky, as the individuals undercut the powerful smugglers and face high security risks transporting the gold along the road. The Enough Project witnessed several such small enterprises that traded out of the back of grocery or hardware stores through secret doors. On the way out of Congo, the traders pay bribes to different armed groups to pass security checkpoints. As Willy, a minerals transporter, told Enough, "If you drive from Walikale [a major minerals center] to Goma, you have to pass three different checkpoints. You have to pay the [Rwandan Hutu Democratic Forces], you have to pay the [former National Congress for the Defense of the People], and you have to pay the army. You have to pay all, or they will kill you."[37] The volume of this trade is smaller than that carried out by the armed groups, with transactions up to $5,000. Larger deals appear to go through the main exporters in Bukavu and Beni/Butembo—the gold traders in the Essence area of Bukavu that Enough spoke to, for example, sell the vast majority of their gold to Namukaya.[38]

Only a tiny fraction of Congo's gold production is exported legally. For example, only 23 kilograms of gold was officially exported from the Kivu regions in the first six months of 2012, despite an estimated 2 tons to 4 tons going out unofficially.[39] This stands in contrast to the 3-T minerals, which are larger and more difficult to smuggle. Roughly $30,000 worth of gold can fit in one's pocket, and $700,000 worth can fit in a briefcase, whereas it would take 13 large trucks carrying 233 tons of tin ore total to equal that value.[40] Discrepancies in regional export taxes have also helped increase smuggling in the past, as Congo's export tax was triple that of Uganda and Burundi. Congo lowered the gold export tax in late 2011, however, from 3.25 percent to 1 percent, bringing it nearly in line with that of Uganda.[41]

Regional smugglers in Uganda, Burundi, and Tanzania

From eastern Congo's major towns, gold is mainly transferred to a small network of smuggling firms in neighboring Uganda, Burundi, and Tanzania. These firms are able to control the market because they can pay a higher price for the gold by avoiding taxes.[42] These companies both pre-purchase gold from the large Congolese producers and buy from individual smugglers who bring gold across the border from Congo. As a western industry analyst who witnessed transactions first hand told Enough, "The buyers [in Uganda] ask the sellers where the gold comes from. Even though all the traders are Congolese, they all say 'South Sudan,' but it's obvious that that is not true. They write 'South Sudan' on the import form, and the transaction is finished, no questions asked. Then the mining ministry sees that 'South Sudan' has been written and stamps its approval."[43]

Three main gold smuggling houses in Uganda and Burundi handle the majority of this trade. According to repeated U.N. investigations, the trading houses are run by Rajendra Vaya (known locally as Raju), Jigar Kumar, and J.V. Lodhia (also known as Chuni) in Uganda, and by Mutoka Ruganyira in Burundi.[44] All four traders normally partner with the large Congolese exporters, but they also have financial relationships with armed groups in Congo to ensure the continued flow of gold. Kumar has allegedly regularly purchased from the Mai Mai Simba militia, and the Ugandan traders ran a gold-trafficking network with the Rwandan Hutu Democratic Forces and the Allied Democratic Forces rebel groups, as well as the Congolese army, in 2011 that ran from Walikale to the Congo-Uganda border.[45] According to the United Nations, "Mr. Mutoka exerts a near monopoly on the entire flow of gold owing to his ability to pay slightly above market prices and maintain a web of pre-financing networks operating in Burundi and DRC."[46]

SASHA LEZHNEV/ENOUGH PROJECT

Robert, age 11, is a full-time gold miner whom we met in South Kivu. "I'm an orphan. I want to go to school, but I have no choice now. I have to dig for gold.

The companies run by these traders are on U.N. and U.S. sanctions lists, but the owners have been continuing their business under other corporate names.[47] As one Ugandan dealer told Enough, "The gold is flowing from South Kivu [Congo] just as it did. The same buyers are buying, and nothing has changed."[48] Belgium-based Berkenrode, linked to Mutoka, has been a major purchasing company for Congolese gold transiting through Burundi. Additional trade is flowing through Tanzania, in Kigoma and Mwanza. In Tanzania, the United Nations reported first-hand accounts of senior rebel leaders traveling freely back and forth on Lake Tanganyika exchanging gold for arms and cash in 2010, as well as multiple testimonies from traders trafficking gold in Mwanza in 2011. The U.N. Group of Experts stated it had "received several testimonies from [Rwandan Hutu Democratic

Forces's] former combatants and local gold traders in Tanzania and the [Democratic Republic of Congo] related to the transfer of several hundred grams a week of gold entering Tanzania from South Kivu, comprising gold that had been sourced from [Rwandan Hutu Democratic Forces] controlled zones."[49] Smaller amounts of gold are also smuggled by individuals in eastern Congo to traders in Kampala and Bujumbura, though this is highly risky.[50]

Uganda, Burundi, and Tanzania should have a stake in a clean, conflict-free gold trade, as officially traded gold would be a boon to tax revenues. However, illicit conflict-gold continues to flow through these countries, representing hundreds of millions of dollars in lost revenues to help build schools and roads and provide services. In fact, Tanzania earned $32 million in tax and royalty revenues from its domestic gold production in 2010, although it exported an estimated $1.4 billion of gold.[51] Tanzania is Africa's third largest producer of gold, but conflict-gold from eastern Congo still flows into Tanzania's trade stream in return for money and arms.[52]

According to trade statistics, Uganda exported an estimated $212 million worth of gold over the past three years despite a minuscule $167 in officially reported production.[53] As a former Ugandan mining official told Enough that, "They [the government] like the chaos. It's what allows the officers to get a cut from the trade."[54] A Ugandan government report adds that, "Most of the gold [in Uganda] is transacted through dubious channels."[55] Uganda initiated a minimal due diligence requirement in 2012 by offering tax incentives to gold traders that bring paperwork for the gold from the country of origin, but no plans are in place to cross-check this information.[56] And as a mining expert on Burundi told Enough, "In terms of steps [on combating the illicit gold trade], Burundi is paraplegic and without a wheelchair. No changes have been made."[57] Burundi has exported $81 million in gold over the past three years but produced an amount far smaller than that.[58]

A smaller amount of gold is exported directly from Congo, instead of going to the neighboring countries. A portion of this is counterfeit gold. The $27 million in gold that Bosco Ntaganda was selling, for example, was reported to be at least in part fake gold, and Ntaganda ran a significant fake gold business in 2011, according to the United Nations, dealing with Ugandan businessmen.[59] Enough received several reports of pending fake gold deals in North Kivu in early 2012.

Cash-for-gold dealers and refiners in Dubai

From Congo and the surrounding region, the smugglers sell conflict-gold to cash-for-gold" dealers in Dubai, United Arab Emirates, to be either melted down into gold bars or made into jewelry. The smugglers normally fly to Dubai with the gold in their briefcases on Emirates Airlines flights from Uganda, Burundi, and Tanzania. "Usually I just fly with it in my hand luggage. No one really checks," as Jacques, a major regional gold smuggler, told Enough.[60]

Dubai is an attractive location for gold smugglers because of its refineries and its reputation as a laissez-faire trading center with little government interference and tax-free policies. One-quarter of the world's gold is now traded through Dubai—a percentage that increases every year.[61] Dubai-based dealers reportedly pay 10 percent less for undocumented gold than for gold with official paperwork because it is more difficult to sell.[62] This makes their profit margins high, as they can sell it for a high price as recycled gold. Dubai has a purity standard for its gold refiners, but the gold that they produce sells for 3 percent to 4 percent less than the gold from the 61 London Good Delivery refiners, both because many global banks believe that Dubai's gold is potentially from questionable sources and because Dubai does not charge an export tax.[63] Smaller amounts of Congo's gold are also traded in Belgium and Hong Kong, but Dubai is the main destination.[64]

The smugglers from Africa's Great Lakes Region usually sell to one of approximately 250 gold dealers operating in Dubai's large gold market—the "souk"—or to larger local gold wholesalers. The United Arab Emirates imported 3.4 tons of gold from Uganda in 2010, or $181 million worth—the vast majority of which was from eastern Congo, as Uganda produces almost no gold.[65] According to the United Nations, "Almost 3 tons of fraudulently traded gold from the Democratic Republic of the Congo may have been laundered into the legal supply chain in Dubai through Kampala [Uganda]." In these cases, traders were allegedly using fake certificates of origin to get airway documents to travel.[66] Dubai has also been the foremost destination for Burundi's gold, with more than 970 kilograms officially exported to the United Arab Emirates in 2009 and an amount likely much higher than that being unofficially smuggled across.[67] Some gold also goes out directly from Congo to Dubai, with the United Nations listing three Dubai-based gold dealers as purchasing from the Kivus in 2011: Saakshi Jewellers, Hazel Trading, and AR Gold.[68]

The cash-for-gold dealers do one of two things with Congo's gold: sell it to refineries to be made into bars for investors or make it into low-cost jewelry for sale in the Middle East and India. The dealers prefer the more-profitable refiner route because the gold then becomes more fungible and therefore attractive to investors, who pay the highest prices. This accounts for the global popularity of cash-for-gold dealers, as they take illiquid jewelry and sell it to be made into lucrative gold bars. The dealers either sell it directly to the refiners or go through large-scale wholesalers.

Dubai is home to three major gold refineries: Emirates Gold, Kaloti Gold Factory, and Al Ghaith Gold, as well as a fourth smaller refiner, Gulf.[69] The refiners melt gold together from multiple sources in furnaces at temperatures higher than 1,900 degrees Fahrenheit, mix it with a series of chemicals, and turn it into gold that is more than 99 percent pure.[70] Until 2010 smugglers sold gold directly to the Emirates and Kaloti refiners, which paid higher prices, but international pressure has caused this path to be slightly altered.[71] The Dubai refineries state that they have stopped buying undocumented gold from Congo and the Great Lakes region, but the conflict-gold now comes to refiners through the souk dealers. There is a long history of trading between the souk, wholesalers, and refiners in Dubai.[72] Emirates Gold, which refines roughly 450 tons of gold per year, is known as a "major refiner of scrap gold from the Middle East and India," and some analysts have alleged that this is where the conflict gold ends up.[73]

While Dubai is often referred to as a black hole for smuggling, there is a window for reform. Dubai's authorities are working to put the city on par with other international gold centers to attract better prices and global investment. Its central gold exchange joined the London Bullion Market Association as an associate member. It has issued warning letters to dealers and refiners not to buy conflict gold and in April 2012 introduced a due-diligence manual for gold traders based on the Organisation for Economic Cooperation and Development guidance, but the exchange has no auditing system as yet.[74] Although conflict gold continues to flow through Dubai, the Emirate's desire to improve its global reputation provides leverage that banks, jewelers, and the wider international community should use to demand greater transparency and accountability.

SASHA LEZHNEV/ENOUGH PROJECT

I sold my gun to the [rebel group] FDLR last year. It was for gold… We fought them in battle in January. What if I was killed with my own weapon? Well, that is Congo." Jean-Claude, a Major in the Congolese army.

Jewelry in the Middle East and India

While the Dubai dealers send a large portion of conflict gold to refiners, some of it is turned directly into jewelry to be sold to local and Indian buyers in Dubai's souk. The dealers generally prefer not to do this because gold melted by refiners can be sold at a premium, but a quick and easy way to dispose of the gold is to do low-grade refinement at the jewelry shops and make it into jewelry for local sale. This method requires little to no paperwork or official reviews, and buyers of small amounts of jewelry are readily available in the souk. Dubai is home to several jewelry manufacturing companies that supply ornaments, necklaces, earrings, and bracelets to retailers across the Middle East and India. Dubai's domestic consumption of gold is between 100 tons and 110 tons per year, and India is the largest buyer of jewelry from Dubai.[75]

Banks in Switzerland

Congolese conflict gold refined in Dubai is commonly sold to Swiss banks that hold gold in vaults for investors. Large banks, known as "bullion banks," are major buyers of gold from refiners, as they are the primary purchasers of purified gold bars.[76] Eleven banks are the leaders in this field, designated as "Market Maker Bullion Banks" by the London Bullion Market Association, and two of the 11 banks are Swiss: UBS and Credit Suisse.[77] Dubai exports most of its unrefined gold to India in the form of jewelry, as mentioned above, but Switzerland is the second largest export market for gold from Dubai, according to export statistics, particularly for refined gold. Dubai exported $10.5 billion in gold bullion, or highly refined gold, in 2009, with Switzerland as its main destination.[78]

The banks hold 90 percent of the refined gold in vaults for investors, who can buy and sell it without taking physical possession.[79] This creates a disconnect between the source and the destination, which makes it challenging to for trace, as the owners of the gold—investors and traders—never actually see it and thus are less inclined to care where it comes from. As a Swiss banker told Enough, "We buy gold from many sources—India, the Middle East, Turkey … And we try to check, but really they might put anything in there. We don't know for sure."[80]

Following the passage of the Dodd-Frank law, the largest banks decided to start an audit program for the main refiners that supply to them. The London Bullion Market Association Responsible Gold Guidance is due to begin in 2013.[81] However, the Dubai refiners are not yet included in this program.

Banks and investors now make up more than one-third of world's demand for gold—triple the rate of a decade ago.[82] The gold price increases in recent years have made increasing numbers of investors move into gold. Nevertheless, most banks still act as a conduit for trading gold onward to the industry that demands it most: jewelry.

Jewelry: On to the consumer

The final step in the supply chain is jewelry, which is the largest end-user of gold worldwide. Jewelry makes up nearly 50 percent of world gold demand.[83] A substantial percentage of jewelers purchase gold from bullion banks or through jewelry manufacturers, while a smaller number buy the metal directly from refiners. Several jewelers told Enough, on condition of anonymity, that they had no idea where their gold came from, and that they did not ask their suppliers if their gold came from conflict zones. Some jewelers are trying to change this culture through a new initiative from the Responsible Jewellery Council, but only three of the top ten U.S. jewelers are members of it, and it does not include a responsible Congo sourcing program.[84]

The largest U.S. jewelry retailers are Sterling (owner of Kay, Jared, and 12 other jewelers) and Walmart, which combined amount to $5.8 billion in annual jewelry sales, followed by Tiffany, Zale, and Macy's.[85] QVC, Sears, J.C. Penney, Costco, and Target round out the top 10 jewelry retailers in sales and are known collectively with 36 companies in total as the "$100 Million Supersellers."[86] Sterling has put in place a proactive conflict-gold program. A substantial amount of jewelry is also sold in India and China.

This step in the process is normally broken up in two sub-steps. Jewelry manufacturing companies usually make the necklaces and chains in factories or workshops, and jewelry retailers then sell them to consumers. U.S. jewelry manufacturers are dominated by the Richline Group of companies, owned by Warren Buffett's Berkshire-Hathaway, and also include Stern-Leach and Lieberfarb. These companies are represented by the Manufacturing Jewelers and Suppliers of America. A significant amount of manufacturing is also done in India and China for sale to jewelry manufacturers and retailers in the United States and Europe.[87]

Electronics companies use smaller quantities of gold to conduct electricity inside cell phones, computers, and chips.[88] Between 7 percent and 11 percent of the world's gold is used in electronics,[89] but tech companies are starting to phase it out in favor of other metals because of the increasing cost of gold.[90] Nevertheless, gold is still the most valuable metal in a cell phone, with one industry source estimating that $1.32 worth of gold is inside the average phone.[91]

Conclusion

Gold from eastern Congo's war zone is probably currently entering a jewelry supply chain at a retail store near you. It is a key means of support for warlords in eastern Congo, and cutting it off and promoting a responsible gold supply chain from Congo is a critical next step to help achieve peace in the world's deadliest war zone. A decade ago, jewelers responded to consumer pressure on blood diamonds and helped sow the seeds of peace in West Africa. Jewelers and governments now have an opportunity to help resolve the conflict-gold problem. If consumers make it clear that they do not want conflict jewelry, jewelers and their suppliers might be convinced to help end the problem.

Endnotes

1 The Congolese Senate estimated Congo's gold production at 40 tons annually in 2009, generating a revenue of $1.24 billion per year, but there does not appear to be a strong basis for this estimate. Meanwhile, PACT and the UK Department for International Development put the figures at 6.5 tons for the Kivu regions and 9.1 tons for Ituri, while the U.N. Group of Experts in 2010 cited 3.6 tons annually for the Kivu regions. But since the onset of Banro's Twangiza mine in 2011, which alone produces 3.4 tons per year, the rate is higher. Based on discussions with other industry analysts and an analysis of each of the figures, we estimate current production at 5 tons to 7 tons for the Kivus, and 6 tons to 7 tons for Ituri, making it 11 tons to 14 tons total. Future production would be much higher, however, if industrial machinery is brought in. For example, AngloGold Ashanti estimates that its new Kibali mine will generate 6 tons in production alone. Nick Bates and Hilary Sunman, "Trading for Peace: Achieving security and poverty reduction through trade in natural resources in the Great Lakes area" (London, Washington, and Lusaka, Zambia: Department for International Development, U.S. Agency for International Development, and the Common Market for Eastern and Southern Africa, 2007); Department for International Development, U.S. Agency for International Development, and the Common Market for Eastern and Southern Africa, "Pact: Natural Resource Trade Flows " (2007); Aloys Tegera and Dominic Johnson, "Rules for Sale: Formal and Informal Cross-border trade in Eastern DRC" (Goma, North Kivu: Polé Institute, 2007);United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2010) available at http://www.un.org/sc/committees/1533/egroup.shtml; Razak Musah, "Randgold Resources," Dow Jones, February 2012, available at http://www.advfn.com/nyse/StockNews.asp?stocknews=AU&article=52018224.

4 For a background on the conflict minerals issue, see Enough Project with Grassroots Reconciliation Group, "A Comprehensive Approach to Congo's Conflict Minerals" (2009), available at http://www.enoughproject.org/files/Comprehensive-Approach.pdf

3 World Vision, "Child Miners in the Democratic Republic of Congo" (2012), available at http://voices.worldvision.ca/wp-content/uploads/2012/02/WorldVision-Africa-ChildMiners.pdf. There are two major exceptions. The first is Banro, a Canadian/South African company publicly listed on the Toronto Stock Exchange, which began exporting gold in 2011 from an industrial mine that it developed with heavy machinery in South Kivu, Twangiza. Banro is in the process of exploring a gold belt along the South Kivu/Maniema border in Namoya. During our research, we did not uncover reports of Banro's involvement in the financing of armed groups, though some local communities have complained of poor resettlement policies. The second is AngloGold Ashanti, a South African mining company, which also restarted industrial exploration in Ituri, just north of the Kivus, in mid-2012 in a joint venture with RandGold at Kibali.

4 See note 1.

5 Jewelry accounted for 43 percent in 2011, while investment accounted for 37 percent. Other demand categories were purchases by government central banks (10 percent), electronics (7 percent), other industrial uses (2 percent), and dentistry (1 percent). In other years, electronics use was higher, and central bank purchases were significantly lower. World Gold Council, "Gold Demand Trends Q2 2012" (2012), available at http://www.gold.org/investment/research/regular_reports/gold_demand_trends/.

6 Fidel Bafilemba, Sasha Lezhnev, and Sarah Zingg Wimmer, "From Congress to Congo: Turning the tide on conflict minerals, closing loopholes, and empowering miners," Enough Project blog, August 7, 2012, available at http://www.enoughproject.org/blogs/new-enough-report-dodd-frank-decrease-conflict-minerals-trade-congo-smuggling.

7 Personal interview with a Congolese civil society leader, Goma, North Kivu, February 16, 2012.

8 World Vision, "Child Miners in the Democratic Republic of Congo."

9 This is despite the fact that the legal limit is only 30 meters.

10 "DR Congo mine collapse: Dozens killed," BBC News Africa, August 16, 2012, available at http://www.bbc.co.uk/news/world-africa-19280575.

11 M.M. Veiga, "Protocols for Environmental and Health Assessment of Mercury Released by Artisanal and Small-Scale Gold Miners" (British Columbia: Global Mercury Project, 2004), available at http://books.google.com/books?hl=en&lr=&id=x2ivzIm5rJ8C&oi=fnd&pg=PR1&dq=mercury+in+artisanal+mining+%2B+contamination+%2B+Congo&ots=StUxYGRDty&sig=687Au72Le9bZICQmnm4xGb5_YUc#v=onepage&q&f=false.

12 Free the Slaves, "The Congo Report: Slavery in Conflict Minerals" (2011), available at http://www.freetheslaves.net/Document.Doc?id=243.

13 World Vision, "Child Miners in the Democratic Republic of Congo." (2012), available at http://voices.worldvision.ca/wp-content/uploads/2012/02/WorldVision-Africa-ChildMiners.pdf

14 These are Ihana, Mpofi, Lugushwa, Minembwe-Kiziba, Mukera-Angote, Misisi-Akyanga, the group of mines around Usala, Manguredjipa, Kiboto, Etaito-Bandolo, Omate, the group of mines at Wassa, Mukungwe, Namadava, and Kamituga. See "Interactive map of militarised mining areas in the Kivus (August 2009)" available at http://www.ipisresearch.be/maps/MiMiKi/Areas/web/index.html (last accessed October 2012).

15 The global supply of mined gold was 2,822 tons in 2011, with the full global supply, including recycled gold, at 4,497 tons. World Gold Council, "Gold Demand Trends, 2nd Quarter 2012." Artisanal mining is estimated to produce 200 tons to 300 tons per year. See Alliance for Responsible Mining, "Fairtrade and Fairmined Gold" (2011), available at http://www.communitymining.org/attachments/134_FT_Gold_policy_report_2011_download.pdf

16 See note 1.

17 The demilitarized gold-production zone is in Kampene. United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2011) available at http://www.un.org/sc/committees/1533/egroup.shtml

18 Michelle Nichols and Louis Charbonneau, "Exclusive: Mineral traders in Rwanda helping fund Congo rebels – U.N. panel," Reuters, October 16, 2012.

19 United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2011), para 78, available at http://www.un.org/sc/committees/1533/egroup.shtml

20 The alleged deal was for 475 kilograms of gold, which is worth $27 million at today's prices. United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2011), para 609, available at http://www.un.org/sc/committees/1533/egroup.shtml

21For example, the United Nations documented that "criminal networks from the BAWA [Congolese] military base in Biruwe, Walikale, collaborate closely with Mai Mai Simba and provide it with weapons and ammunition in exchange for minerals." Personal interviews with army officers and former Rwandan Hutu Democratic Forces officers Goma and Kalehe, May 2011 and February 2012; United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2009) available at http://www.

un.org/sc/committees/1533/egroup.shtml

22 Ibid.

23 As reported by the U.N. Group of Experts, Mai Mai Yakatumba controlled mines in Fizi; Mai Mai Sheka controlled some 30 mines in Walikale; and the APCLS controlled five mines in Ihana. There was also an agreement at Omate, where Sheka provided security, got his own pits, and sold to Namukaya. Mai Mai Simba controlled a gold, tin, and diamond trade in Maiko National Park. United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2009), paras 124-63, available at http://www.un.org/sc/committees/1533/egroup.shtml; United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2011), paras. 179, 196, 227, 200, 248, available at http://www.un.org/sc/committees/1533/egroup.shtml

24 United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2010), paras 196-202, available at http://www.un.org/sc/committees/1533/egroup.shtml

25 United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2011), pp. 136-8, available at http://www.un.org/sc/committees/1533/egroup.shtml

26 Ex-FNL commander Agathon Rwasa is reportedly trading in Congolese gold and recruiting fighters for a "holy war" against the Burundian government. United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 8 of Security Council resolution 1857" (2010), para 119, available at http://www.un.org/sc/committees/1533/egroup.shtml

27 Personal interview with former Rwandan Hutu Democratic Forces fighter, Goma, North Kivu, February 19, 2012.

28 Personal interview with gold trader, eastern Congo, May 2011.

29 Personal interview with Congolese NGO, eastern Congo, May 2011.

30 United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2011), pp. 16, 56, 61, 96, 129, 131, 134, available at http://www.un.org/sc/committees/1533/egroup.shtml

31 United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2011), pp. 16, 56, 61, 96, 129, 131, 134, available at http://www.un.org/sc/committees/1533/egroup.shtml United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2009), pp. 56, 60, 81, 101, 136-40, 187-9, available at http://www.un.org/sc/committees/1533/egroup.shtml

32 The airline is now known as New CongoCom Air. Ruben de Koning, "Conflict minerals in the Democratic Republic of Congo: Aligning Trade and Security Interventions" (Solna, Sweden: Stockholm International Peace Research Institute, 2011), available at http://books.sipri.org/files/PP/SIPRIPP27.pdf.

33 United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2011), paras. 6, 357, available at http://www.un.org/sc/committees/1533/egroup.shtml

34 De Koning, "Conflict Minerals in the Democratic Republic of Congo."

35 This airline is called Galaxy Kavatsi Airlines. Ibid.

36 United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2011), pp. 29, 37-8, 72, 75-6, 127,134, 137, 171, 267-8, available at http://www.un.org/sc/committees/1533/egroup.shtml

37 Personal interview with driver, Goma, North Kivu, May 2010.

38 Personal interviews with four gold dealers in Bukavu, Mwenga, and Kampala, 2010–2012.

39 Industry estimates and United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2011), available at http://www.un.org/sc/committees/1533/egroup.shtml

40 The average price for tin ore in eastern Congo is $3 per kg today.

41 This includes the World Gold Council and Responsible Jewellery Council. United Nations Group of Experts, "Interim Report of the Group of Experts on the DRC submitted in accordance with paragraph 4 of Security Council resolution 2021" (2012), para. 155, available at http://www.un.org/ga/search/view_doc.asp?symbol=S/2012/348

42 United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2011), p.5, available at http://www.un.org/sc/committees/1533/egroup.shtml

43 Personal interview with western diplomat, Kampala, May 2011.

44 "The owner of Machanga Ltd, Rajendra Kumar, continues to be one of the most prominent gold buyers in the Great Lakes region, sourcing largely from areas affected by the presence of armed groups and criminal networks, without conducting due diligence .… The Group has confirmed, over the course of repeated mandates, that Namukaya resells its gold to Rajendra Kumar of the sanctioned entity Machanga Limited in Kampala. The owners of UCI continue to source from Beni, Butembo, and Ituri"Interim Report of the Group of Experts on the DRC submitted in accordance with paragraph 4 of Security Council resolution 2021" (2012), p. 54, available at http://www.un.org/ga/search/view_doc.asp?symbol=S/2012/348

45 "For example, [Rwandan Hutu Democratic Forces] combatants control a gold-trafficking network that runs from mines in Walikale through Rutshuru into Uganda. [Rwandan Hutu Democratic Forces] combatants told the Group that their patrols transported batches of gold weighing up to 50 kg. An important crossroads for these movements is the Kibirizi area in Rutshuru, from which gold is dispatched to Goma, Rutshuru or Beni and then exported to Uganda. Three former [Rwandan Hutu Democratic Forces] combatants reported that [Rwandan Hutu Democratic Forces] "Captain" Aziz played an instrumental role in bringing gold brought by [Rwandan Hutu Democratic Forces] through Kibirizi into Goma. One of the buyers in Goma is Didi Bashir, who buys gold at the Mubi market or in Goma to sell in Kampala. Gold shipped by [the Rwandan Hutu Democratic Forces] to Rutshuru is also exported through [Rwandan Hutu Democratic Forces]-controlled border crossings into Uganda. A local trader named Kambere Kachuva admitted to the Group that he bought gold from [Rwandan Hutu Democratic Forces] in Rutshuru to sell in Uganda. According to gold traders and local authorities, Donat Kananura purchases gold arriving in Kampala through this chain." United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2011), paras. 107-8, 153, 541, available at http://www.un.org/sc/committees/1533/egroup.shtml

46 "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2009) available at http://www.un.org/sc/committees/1533/egroup.shtml

47 The companies on U.N. and U.S. sanctions lists are Machanga, Ltd., and Uganda Commercial Impex. However, the U.N. Group of Experts reported in December 2009 that the directors of these companies continue to import and export

gold from Rwandan Hutu Democratic Forces and army-held mines throughout 2009 under other company names. Ibid.

48 Personal interview with gold trader, Kampala, December 2011.

49 "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 8 of Security Council resolution 1857" (2010), para 119, available at http://www.un.org/sc/committees/1533/egroup.shtml

50 Personal interviews with gold traders and regional gold experts in eastern Congo and Uganda, March 2011.

51 Extractive Industries Transparency Initiative, "Tanzania 2010" (2012), available at http://eiti.org/report/tanzania/2010; "Tanzania Gold Exports Rebound," Bullion Street blog, May 24, 2012, available at http://www.bullionstreet.com/news/tanzania-gold-exports-rebound/1889.

52 "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 8 of Security Council resolution 1857" (2010), para 119, available at http://www.un.org/sc/committees/1533/egroup.shtml

53 In 2011 Uganda produced roughly 0.0005 kilograms of gold, according to the Department of Geological Survey and Mines of Uganda, "Annual Statistics" (2008), available at http://www.uganda-mining.go.ug/magnoliaPublic/en/GeologyMining/MiningStatistics.html; UN Group of Experts, 2011, para. 553; Uganda "Background to the Budget, 2011-12," Table 17.

54 Personal interview with former Ugandan government official, Kampala, Uganda, May 2011.

55 Uganda Investment Authority, "Mining Sector Profile" (2011), available at http://www.ugandainvest.go.ug/index.php?option=com_k2&view=item&layout=item&id=337&Itemid=219.

56 The new Ugandan policy is that anyone who enters Uganda with minerals and fails to provide satisfying paperwork from the country of origin shall pay a 3 percent royalty, as specified in the mining regulation for Ugandan-produced gold. Only those with accompanying authentic paper work from the country of origin shall be allowed to pay a 1 percent royalty. However, there are no plans to cross-check this information or to conduct deeper audits.

57 Personal interview with western expert on Great Lakes mining, August 2012.

58 Burundi's official exports of gold totaled $26.2 million through the first half of 2009, so we estimate based on this figure. Production conclusion here is based on personal interviews with Burundian mining officials, April 2010.

59 Jean-Luc Musesambili was a chief middleman for Ntaganda, who runs a bar called "Café Vision Congo" in Kampala. UN Group of Experts, 2011, para. 542. Personal interview with UN Group of Experts, August 26, 2012.

60 Personal interview with gold smuggler, eastern Congo, May 2010.

61 Approximately 900 tons of gold were traded through the United Arab Emirates in the first three quarters of 2011, while the world gold supply was 3,373 tons during the same period. See Dubai Multi Commodities Centre, "Industry Statistics," available at http://www.dmcc.ae/jltauthority/gold/industry-statistics/; World Gold Council, "Investment: Demand and supply statistics" (2012), available at https://www.gold.org/investment/statistics/demand_and_supply_statistics/. According to the publication Emirates 24/7, "The prime reason is that internationally approved London Good Delivery bars typically carry a higher premium than other bars. There is now a Dubai Good Delivery standard but these bars are sometimes sold at a lower premium than the London Good Delivery ones to achieve sufficient sales." Alison Burns, the Dubai-based Head of Precious Metals (Mena) at Standard Bank, told Emirates Business that, "This is not necessarily a reflection at all of higher or lower quality, but some international buyers feel more comfortable obtaining only the best-known London Good Delivery brands." The fact that Dubai does not charge duty on gold exports also helps lower the price of gold shipped from the Emirates. Sajith Kumar PK, CEO of Dubai-based JRG Metals and Commodities, said "The absence of export duties is a strong contributor towards lowering the price of gold exported from Dubai." Dubai's emergence as the world's largest re-exporter of gold means there are always stocks available that traders want to clear, and this has also pushed down the price of gold exports from here. See "'Cheaper' Dubai gold may gain extra shine in the Indian market," Emirates 24/7, July 19, 2009, available at http://www.gulfinthemedia.com/index.php?m=economics&id=480242&lim=&lang=en&tblpost=2009_07&PHPSESSID=.

62 "Traders in and around the gold souk who will pay a discounted rate (of around 10 percent) of the spot price for such product, and then have it refined to pure gold at the Emirates Refinery or elsewhere." Philip Olden, "OECD Due Diligence Guidance for Responsible Supply Chain Management of Minerals from Conflict-Affected and High Risk Areas: Implications for the Supply Chain of Gold and Other Precious Metals" (Paris: Organisation for Economic Coordination and Development, 2010).

63 Personal interviews with two gold industry experts, September 2012. The London Bullion Market Association Good Delivery List is now widely recognized as representing the de facto standard for the quality of gold and silver bars, in large part thanks to the stringent criteria for assaying standards and bar quality that an applicant must satisfy in order to be listed. The assaying capabilities of refiners on the Good Delivery List are periodically checked under the London Bullion Market Association's Proactive Monitoring program. The main requirements to be considered for listing are normally that a refiner must have an established track record of at least three years of producing the refined metal for which the listing is being sought; must produce a minimum quantity of refined metal per year—10 tons of gold and 50 tons of silver; must have a tangible net worth of at least £15 million equivalent; must furnish evidence of their ownership structure and directors; and must provide, if required, a suitable letter of endorsement, e.g., from the central bank or an acceptable commercial bank in their country of operation.

64 Documented evidence and interviews with multiple traders over the past decade confirm this. The evidence for Belgium is on one company, and there is only circumstantial evidence for Hong Kong. Belgium, the former colonial power in Congo and Burundi, appears to have had some involvement with the conflict-gold trade. The U.N. Group of Experts documented in 2009 how a Belgian gold refinery—Tony Goetz and Zonen of Antwerp—purchased gold from eastern Congo and was linked to the major Burundian smuggler of Congolese gold, Mutoka Ruganyira. Furthermore, the United Nations recently listed Hong Kong as a new destination for a smaller amount of Congo's gold in 2011 but did not provide further details. "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2009), para. 157, available at http://www.un.org/sc/committees/1533/egroup.shtml

65 Department of Geological Survey and Mines of Uganda, "Annual Statistics."

66 United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2011), p. 139, available at http://www.un.org/sc/committees/1533/egroup.shtml The investigative television program "60 Minutes" documented that gold from Congo was traded between Uganda and Dubai via Emirates Airlines. 60 Minutes, "Congo's Gold," CBS News, November 29, 2009, available at http://www.cbsnews.com/video/watch/?id=5825990n.

67 De Koning, "Conflict minerals in the Democratic Republic of Congo."

68 United Nations Group of Experts, "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2011), para. 365, available at http://www.un.org/sc/committees/1533/egroup.shtml

69 Dubai Multi Commodities Centre, "The Dubai Good Delivery List—Gold," available at http://www.dmcc.ae/jltauthority/

gold/the-dubai-good-delivery-list-gold/.

70 For a more thorough description of the refining process, see "The Refining Process," available at http://www.hooverandstrong.com/category/The+Refining+Process/ (last accessed October 2012); "Aqua regia," available at http://en.wikipedia.org/wiki/Aqua_regia (last accessed October 2012).

71 "Final report of the Group of Experts on the DRC submitted in accordance with paragraph 5 of Security Council resolution 1952" (2009), available at http://www.un.org/sc/committees/1533/egroup.shtml

72 One refiner, Al Ghaith, is located directly next to the gold souk, for example. As per Philip Olden, "There are hundreds of traders in and around the gold souk who will pay a discounted rate (of around 10 percent) of the spot price for such product, and then have it refined to pure gold at the Emirates Refinery or elsewhere." Olden, "OECD Due Diligence Guidance for Responsible Supply Chain Management of Minerals from Conflict-Affected and High Risk Areas."

73 Ibid.

74 "DMCC issues guidelines to ensure the ethical and responsible trading of precious metals," AMEinfo.com, April 29, 2012, available at http://www.ameinfo.com/dmcc-issues-guidelines-ensure-ethical-responsible-298598; Dubai Multi-Commodities Exchange website, available at http://www.dmcc.ae/en/precious-commodities/gold/activities.html

75 "UAE among world's top 5 gold traders," Emirates 24/7, January 3, 2011, available at http://www.emirates247.com/business/economy-finance/uae-among-world-s-top-five-gold-traders-2011-01-03-1.337429. In India jewelry accounts for 75 percent to 80 percent of gold demand. Cultural traditions dictate that every family will possess some gold. It is estimated that Indian women hold—in the form of jewelry—more than double the amount of gold of the U.S. National Gold Reserve. World Gold Council, "India: Heart of Gold" (2010).

76 Investment in gold coins and bars accounts for a further 37 percent.

77 The full list is Bank of Nova Scotia, Barclays Bank, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, JP Morgan, Merrill Lynch, Mitsui & Co Precious Metals, Société Generale, and UBS. "London Bullion Market Association," available at www.lbma.org.uk (last accessed October 2012).

78 Switzerland and India are the top two importing countries of gold from Dubai, according to multiple sources. India's main use for the gold is jewelry, and Switzerland mainly purchases gold bullion, though there is some overlap. According to the Dubai Ministry of Foreign Trade, $5.5 billion (52 percent) is exported to India, and $2.2 billion (21 percent) to Switzerland, with both countries enjoying a total 73 percent share of exports. WAM, "UAE among world's top five gold traders," Emirates 24/7, January 3, 2011, available at http://www.emirates247.com/business/economy-finance/uae-among-world-s-top-five-gold-traders-2011-01-03-1.337429; Several other sources, including Dubai Customs and Dubai World Statistics, also cite India and Switzerland as the two top destinations for gold from Dubai. Switzerland imported 7.4 billion UAE Dirhams of gold from the United Arab Emirates in 2009 (USD$2.02 billion). "Gold tops Dubai exports, fed by Indian demand, strong market," UAEinteract.com, April 1, 2012, available at http://www.uaeinteract.com/docs/Gold_tops_Dubai_exports,_fed_by_Indian_demand,_strong_market/47807.htm; "India remains hot destination for Dubai gold," Bullion Street blog, January 6, 2012, available at http://www.bullionstreet.com/news/india-remains-hot-destination-for-dubai-gold/766; "India's Gold Exports to Dubai Boom," CommodityOnline.com, April 13, 2009, available at http://www.commodityonline.com/news/indias-gold-exports-to-dubai-boom-16832-3-16833.html.

79 "Allocated accounts," on the other hand, require physical stores of the gold and can ensure better tracking and traceability in the supply chain en route to investors.

80 Personal interview with representative of Swiss bank, September 19, 2012.

81 The 61 London Good Delivery refiners will be required to undergo audits to the London Bullion Market Association Responsible Gold Guidance in 2013, in order to stay on the prestigious list. The requirements for the audits have not yet been finalized, having been circulated for comment by the London Bullion Market Association in late September 2012. "London Bullion Market Association," available at www.lbma.org.uk (last accessed October 2012).

82 In 2011 investment formed 37 percent of world demand for gold, while in 2001 it accounted for 12 percent. World Gold Council, "Gold Demand Trends: First Quarter 2012" (2012); World Gold Council, "Gold Demand Trends, February 2002" (2002).

83 Jewelry accounted for 43 percent of gold demand in 2011, but the five-year average from 2006 to 2011 was 55 percent. Jewelry and technology weakened a bit in 2011 but both were considered relatively robust. World Gold Council, "An Investor's Guide to the Gold Market" (2011); World Gold Council, "Gold supply and demand, 2012" (2012).

84 Building on the Dodd-Frank legislation, the Responsible Jewellery Council initiated a Chain of Custody program for jewelers, refiners, and mining companies in 2012, but of the top 10 U.S. jewelers, only Tiffany, Sterling, and JC Penney are members of it. We are analyzing the program in more detail for the forthcoming report. For more information, see "Responsible Jewellry Council," available at www.responsiblejewellery.com (last accessed October 2012).

85 "$100 Million Supersellers 2012", National Jeweler, June 25, 2012, available at http://www.nationaljeweler.com/nj/special-reports/market-analysis/100mss-2012/sr-detail?id=29038&count=1&start=2.

86 The rest of the top-10 list, in order, includes QVC, Sears, JC Penney, Costco, and Target. Ibid.

87 Personal interviews with NGOs, jewelry retailers, and jewelry manufacturers, 2010–2012. "We source a lot of our jewelry from India and China," a representative of a top-10 U.S. jewelry retailer told us in September 2012.

88 It is sprinkled in key places on circuit boards to help conduct electricity between components and the circuit board.

89 In 2011 the figure was 6.99 percent (452 tons out of 4574 total), but it was 11 percent in 2009 (420 tons out of 3812 total). World Gold Council, "Gold demand trends" (2010, 2012).

90 Personal interviews with two major consumer electronics companies, June 2012 and July 2012.

91 Personal interview with major electronics company representative, May 28, 2012.

Enough is a project of the Center for American Progress to end genocide and crimes against humanity. Founded in 2007, Enough focuses on the crises in Sudan, South Sudan, eastern Congo, and areas affected by the Lord's Resistance Army. Enough conducts intensive field research, develops practical policies to address these crises, and shares sensible tools to empower citizens and groups working for change. To learn more about Enough and what you can do to help, go to www.enoughproject.org.

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