

MAPPING THE IMPACT OF ILLICIT TRADE
ON THE SUSTAINABLE DEVELOPMENT GOALS

ABOUT THE REPORT

On 18 July 2019, the Transnational Alliance to Combat Illicit Trade (TRACIT) in collaboration with the UN Conference on Trade and Development (UNCTAD) organized a forum to discuss the role of illicit trade in inhibiting positive development outcomes and in particular, the implications for the achievement of the UN Sustainable Development Goals (SDGs).

The event featured the launch of TRACIT's report,

Mapping the Impact of Illicit Trade on the UN Sustainable Development Goals.

The TRACIT report investigates illicit trade in 12 key sectors that participate significantly in international trade and are most vulnerable to illicit trade. For each sector, the negative impacts of illicit trade are mapped against the 17 UN SDGs. The sectors include: agri-foods, agro-chemicals and pesticides, alcohol, counterfeit and pirated goods, forestry, IUU fishing, petroleum, pharmaceuticals, precious metals and gemstones, tobacco products, trafficking in persons and illicit trade in wildlife.

This document excerpts the chapter on "SDGs and illicit trade in precious metals and gemstones"

ABOUT TRACIT

The Transnational Alliance to Combat Illicit Trade (TRACIT) is an independent, private sector initiative to drive change to mitigate the economic and social damages of illicit trade by strengthening government enforcement mechanisms and mobilizing businesses across industry sectors most impacted by illicit trade.

FOR MORE INFORMATION

The full report, Executive Summary and the sector specific chapter excerpts can be found at: www.tracit.org/publications_illicit-trade-and-the-unsdgs

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SDGs AND ILLICIT TRADE IN PRECIOUS METALS AND GEMSTONES



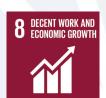


















INTRODUCTION

Illicit trade and the UN SDGs

The UN Sustainable Development Goals (SDGs) lay out an ambitious set of 17 goals to address the world's most acute economic, social and environmental challenges. They cover everything from poverty eradication and zero hunger to clean water, decent jobs and peace. Since coming into effect in January 2016, governments, private sector and civil society have rallied around the SDGs to guide policy, implement investment strategies and allocate funding.

Among the portfolio of tools available to achieve the SDGs is the expansion of international trade.¹ This is because trade has historically proven to be an engine for development, boosting income generating capacity and contributing to unprecedented reductions in poverty levels.² Over the last few decades cross-border trade has expanded significantly, supporting rising living standards across the globe.

At the same time, the expansion in *legal* trade has been accompanied by the alarming emergence of *illicit* trade, with estimates quantifying it and associated transnational criminal activities at between 8 and 15 percent of global GDP.³

From smuggling, counterfeiting and tax evasion, to the illegal sale or possession of goods, services, humans and wildlife, illicit trade is compromising the attainment of the SDGs in significant ways, crowding out legitimate economic activity, depriving governments of revenues for investment in vital public services, dislocating millions of legitimate jobs and causing irreversible damage to ecosystems and human lives.

Mapping illicit trade against the SDGs

Despite the recognition of international trade as an important means to achieve the SDGs, insufficient attention has been given to the substantial impact that illicit trade has on holding back progress.

In order to help governments and business better understand how their efforts to achieve sustainable development must account for the negative forces of illicit trade, this study maps the 17 UN SDGs against the following sectors: agri-foods, alcohol, fisheries, forestry, petroleum, pharmaceuticals, precious metals and gemstones, pesticides, tobacco, wildlife and all forms of counterfeiting and piracy. These sectors were chosen because they participate significantly in international trade and they are particularly vulnerable to illicit trade. Trafficking in persons is also examined as a particularly abhorrent phenomenon affecting supply chains and basic human rights as well as contributing to illicit trade practices.

To the extent that an SDG—or one of the 169 targets established to track progress on the goals—is impacted by illicit trade, this study examines where and how illicit activity undermines progress to achieve it. In some cases, illicit activity is mapped against an overall goal, such as SDG 3 (Good Health and Well-Being). In other cases, a specific target has been examined, such as SDG Target 8.7 (Eradicate forced labor, end modern slavery and human trafficking).

Key findings from the report

The socio-economic impacts of illicit present significant deterrence to all 17 of the SDGs—holding back progress, increasing costs and pushing achievement of the goals further away.

There are notable "macro" impacts where illicit trade cuts deeply across many of the SDGs, undermining achievement of the economic goals for poverty reduction, decent jobs and economic growth (SDGs 1, 2, 3, 4 & 8), and robbing governments of taxable income that can be invested in public services (SDGs 9 & 17). When it generates revenue for organized criminal and terrorist groups, illicit trade undermines goals for peace and stability (SDG 16). Most forms of illicit trade plunder natural resources (SDGs 6, 14 & 15), abuse supply chains and ultimately expose consumers to fake and potentially harmful products (SDG 12).

While findings show that illicit trade poses a threat to all 17 SDGs, nowhere is the nexus as evident than in SDG 16 (Peace, Justice and Strong Institutions) and SDG 8 (Decent Work and Economic Growth).



Illicit trade—in all its forms—stands in direct juxtaposition to SDG 16, by feeding violence and breeding corruption, undermining trust in institutions and the rule of law, and generating enormous illicit financial flows.

Moreover, the links between illicit trade and organized crime are well

established, from human trafficking networks and tobacco smuggling, to fuel theft by drug cartels and the involvement of the mafia and organized criminal groups in the trade of counterfeit products. Perhaps most frightening are links to terrorist financing that heighten threats to national and global security.



All types of illicit trade threaten inclusive economic growth and significantly hinder achievement of SDG 8. Lost taxes rob governments of revenues intended for schools, infrastructure and other public services. Illegal and unfair competition reduces sales and dampens the ability of companies

to create lasting and dignified job opportunities. Taken together, economic leakages across the sectors susceptible to illicit trade create an annual drain on the economy of US\$2.2 trillion and present a triple threat to financing the necessary "billions to trillions" dollar gap needed to reach the SDGs.

Business is a partner for achieving the SDGs

As illicit trade weakens the viability and sustainability of industries, it simultaneously dilutes private sector contributions to achieving the SDGs. For example, illicit trade is a form of unfair competition that undermines private sector contributions to economic growth and employment. It chokes off market growth, sabotages global supply chains, squanders natural resources and endangers market security. Fake products and inferior materials in supply chains harm consumers and tarnish consumer perception of a corporation's social responsibility (CSR) performance. In some cases, it poses significant threats to the safety and security of personnel and facilities, all adding to the increasing costs of doing business. Where proliferating illicit trade creates socio-economic instability, it dampens private sector investment, holds back research and development (R&D) and discourages technology transfer.

For these reasons, the private sector has a vital interest in defending against illicit trade, helping itself across industry sectors and playing an active role in promoting the SDGs.



The Transnational Alliance to Combat Illicit Trade (TRACIT) provides a platform for business and governments to collaborate holistically to mitigate the incumbrance of illicit trade on the SDGs. Mapping the impacts of illicit trade on the UN Sustainable Development Goals is part of TRACIT's

contribution to the partnership approach embodied in SDG 17 and a means by which business, the public sector and civil society—working in partnership—can more effectively achieve the SDGs.

SDGs AND ILLICIT TRADE IN PRECIOUS METALS AND GEMSTONES

Gemstones and precious metals are highly vulnerable to illicit trade and often underpin larger money laundering schemes, corruption and military conflict. Their low weight, high value, high durability, stable pricing and ability to be easily moved or smuggled make them especially attractive to launderers and criminal financiers. Gemstones most common to illicit trade include diamonds, emeralds, sapphires and rubies. Precious metals vulnerable to illicit trade include gold, silver, platinum and platinoid metals.

The fragmented and complex global supply chain of precious metals and gemstones make these goods particularly well suited as vehicles for illicit financial flows and have been linked to smuggling, drug trafficking, illicit arms trafficking, and the financing of terrorism.³ Precious minerals also may be used as cover for laundering illegal funds generated by other crimes, for example, through false invoices covering fictitious sales of gold or diamonds.⁴

Gold and diamonds especially are exposed to illicit trade and other forms of crime because of the great ease by which these commodities can be traded and the high value returns. The World Gold Council highlights that "responsible gold mining also means addressing concerns that resources could fund unlawful activity, particularly when operating in areas affected by armed conflict, such as civil war or militia activity." Furthermore, illegally mined or traded diamonds and gold are being used as alternative currency by criminals who use them to trade in other illicit goods such as guns and drugs; and to fund rebel groups, militias and armed gangs. There are also several reported instances of illegal mining being associated with the trafficking of explosives that are then used to commit other crimes such as robberies, bombings of facilities and conflict operations.

Case Study: Diamonds and the Kimberley Process

The Kimberley Process (KP), created in 2003, outlines the rules that govern the trade in rough diamonds, with the objective of preventing conflict diamonds from entering into legitimate international trade. Under the terms of the Kimberley Process Certification Scheme (KPCS), participating states must meet "minimum requirements" and must put in place national legislation and institutions; export, import and internal controls; and also commit to transparency and the exchange of statistical data. Participants can only legally trade with other participants who have also met the minimum requirements of the scheme. As of September 2018, the KP has 54 participants, representing 81 countries, and its members account for approximately 99.8 percent of the global production of rough diamonds. Few industries have gone so far to self-regulate as the diamond industry, and much of the KP's success stems from strong commitment and collaboration between governments, industry and civil society.

While the KP has played an important role for improving transparency and integrity of the global trade in rough diamonds, critics note that its narrow definition of conflict diamonds as "rough diamonds used by rebel movements to finance wars against legitimate governments" exclude other inter-related issues from the scheme, including human rights, social, and environmental degradation. Moreover, the KP applies only to rough diamonds and once stones are cut and polished they are no longer bound by the protocol.

In short, the illicit trade in precious metals and gemstones upsets the progress made by national governments, industry and other stakeholders to ensure the sustainable management and development of the mining sector and protect the integrity of the mineral supply chain.

Impact of the illicit trade in precious metals and gemstones on achieving the UN Sustainable Development Goals

When properly managed, the extraction and trade of precious metals and gemstones can provide a dynamic process of transformation of societies, creating opportunities to build sustainable and innovative economies, and provide significant export and tax revenue opportunities, particularly for countries facing development needs.⁹

With its global scale and diverse operations, the mining industry has opportunities to mobilize significant human, physical, technological and financial resources to advance the SDGs, including creating decent jobs, enabling economic diversification, contributing taxes, and bringing vital investments and infrastructure to resource-rich but nonetheless remote and underserved areas. ¹⁰ It also supports social development and inclusion for millions of people employed in a wide range of businesses, building the skills of employees and bringing financial security and other benefits to communities where it operates.

Conversely, poorly managed or illegal mining and the subsequent trade in illegally sourced resources can lead to environmental degradation, human rights abuse and conflict, while providing a significant source of revenue for organized crime and terrorist groups.¹¹ Moreover, the presence of criminal groups in the mining and minerals sector drives corruption and negatively impacts stability, governance, development and the rule of law.¹²

The illicit trade in precious metals and gemstones impacts achievement of as many as ten of the 17 SDGs:

- SDG 1 (no poverty);
- SDG 3 (good health and well-being);
- SDG 6 (clean water and sanitation);
- SDG 8 (decent work and economic growth);
- SDG 9 (industry, innovation and infrastructure);
- SDG 12 (responsible consumption and production);
- SDG 13 (climate action);
- SDG 14 (life below water);
- SDG 15 (life on land);
- SDG 16 (peace, justice and strong institutions); and

Economic growth and development







Illicit trafficking in precious minerals has been characterized as a "fleecing of national assets and resources," which adversely affects sustainable economic growth and development for resource-rich source countries and the mining industries that work there legally. Furthermore, fiscal revenues derived from taxes and license fees are lost, along with employment opportunities and the development of supporting infrastructure serving the mines and local communities.

• South Africa's illegal trade in precious metals is estimated at US\$1.3 billion a year, which is a significant drain on the country's GDP, export and trade balances. 14 Illegally extracted gold and platinum alone cost the legal industry 5 to 10 percent of its annual production, according to South Africa's Chamber of Mines. That excludes additional security expenses and costs incurred when mines need to be shut down to address illegal activities. 15 It is estimated that about 10 percent of South Africa's gold production is stolen and smuggled out of the country each year. 16

• Myanmar's production of Jade is estimated at US\$12 to \$31 billion per year (indicated by Chinese import figures), which is equal to about half of the country's GDP. However, because 50 to 80 percent of this wealth is smuggled out directly to the China border, bypassing the official sales and taxes completely, Myanmar's trade in Jade has been called the "'biggest natural resource heist' in modern history."¹⁷ According to a 2015 report by Global Witness, Myanmar lost US\$6.2 billion in mine site taxes in 2014.¹⁸

Many low-and-middle-income countries depend heavily on mining to develop their resource endowments as a motor for driving wider national economic growth (SDG 8).¹⁹ Studies carried out by the International Council on Mining and Minerals have found that the income from mining can contribute as much as 25 percent of total government revenue.²⁰ However, widespread theft of precious metals and gemstones robs governments of this ability to strengthen domestic resource mobilization.

Legitimate mining companies can play an important role in reducing poverty (SDG 1) through direct employment, sourcing goods and services locally and paying taxes to governments, which enable public investment in essential social and economic infrastructure. Where companies operate in remote, low-income areas, the legitimate mining industry can help alleviate poverty through job creation and skills development.

The legitimate sector also plays a significant role in investing in and operating essential infrastructure (SDG 9), such as roads that enable wider social and economic progress or infrastructure required to develop, operate and export products. This investment is particularly valuable in remote areas or in countries where there is a large infrastructure gap.²¹ In many post-conflict situations and fragile states, the mining sector has been essential in kick-starting economic and social progress. In countries such as Liberia and Mozambique, mining investment sustained peace-building efforts and encouraged respect for the rule of law.²² Moreover, mining investments in these two countries were deliberately integrated with development to support other local industries such as agriculture and forestry and employment opportunities.²³ In contrast, Pakistan's history of corruption and illegal mining continues to deter many foreign companies from there, precluding opportunities for the country to realize the full potential of its abundant natural resources.²⁴

Decent work, health, and well-being





According to the UN Special Rapporteur on Contemporary Forms of Slavery, the illegal mining sector is rife with indentured employment (i.e., modern slavery), utilizes child labor and forced labor of undocumented immigrants, perpetuates unfair work conditions, and disregards health and safety requirements for miners. Perpetuates unfair work conditions, and disregards health and safety requirements for miners. Reportedly, there are between 8,000 and 30,000 illegal miners in South Africa. While it's difficult to assess the number of people involved, most of South Africa's illegal miners are reported to be undocumented immigrants from neighboring countries such as Lesotho, Mozambique and Zimbabwe. In some mines, men and adolescents are offered employment and receive cash advances during their initial months of work, and then find these sums deducted from salary, creating debt bondage. In other cases, armed gangs are kidnapping rival miners and forcing them to work under slave-like conditions.

Child labor is unfortunately common in illegal mining.²⁹ While the legitimate private sector actors take measures to ensure that their supply chains are free from child labor, illegal operators continue to employ children to work under dangerous conditions above and below ground. They risk death from explosions, rock falls, and tunnel collapses and breathe air filled with dust and sometimes toxic gases. They also dig, crush, mill, and haul ore and stand for hours in water.³⁰ The International Labour Organization (ILO) has conducted many studies on children in hazardous work and estimates that approximately one million children aged 5 to 17 years old risk their lives by working in mines.³¹ The gold mining industry is particularly hazardous for child workers due to the prolonged exposure of toxic metals.

The pervasiveness of unfair work conditions, child labor and other violation of human rights threatens the viability of the global legitimate minerals industry and the achievement of SDG Target 8, in particular SDG Target 8.7 (eradicate forced labor and child labor) and SDG Target 8.8 (safe and secure working environments for all workers)

Artisanal and small-scale mining

Artisanal and small-scale mining (ASM) present governments with a particular challenge in the fight against illicit trade. Although ASM can take legal forms, it is most often operated outside the legal framework of a country and without government approval. The sector is commonly associated with the informal economy, negative environmental and health impacts; and negative social impacts including child labor, forced labor, gender-based violence, and other forms of crime. At the same time, ASM is a poverty-alleviating activity that plays an important economic role in many developing countries. An estimated 40.5 million people were directly engaged in ASM in 2017, up from 30 million in 2014, and 6 million in 1993, according to a recent study from the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development. The same study found that around 150 million people across 80 countries currently depend on ASM for their livelihoods. Government policies to address illicit trade in precious metals and gemstones must therefore be holistic and factor in broad social impact and local development issues. This includes steps to eradicate forced labor and other negative impacts associated with ASM, while at the same time ensuring that policies do not inadvertently exclude ASM from mineral supply chains, thereby creating instability in communities that currently rely on this sector for their livelihoods.

UNICRI (2015), "Promoting an international strategy to combat illicit trafficking in precious metals – discussion draft". Available at: http://www.unicri.it/special_topics/metals_gemstones/Preliminary_Desk_

Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF). (2017). Global Trends in Artisanal and Small-Scale Mining (ASM): A review of key numbers and issues. Winnipeg: IISD. Available at: https://www.iisd.org/sites/default/files/publications/igf-asm-global-trends.pdf

Illegal mining also disregards health and safety requirements for miners, thereby putting their lives at risks (SDG 3). In many cases, illegal mining businesses do not have adequate and suitable safety gear (e.g., masks, gloves and hearing protection) for their workers. The use of mercury in illegal gold mining represents a particular threat to good health and well-being. Artisanal and small-scale gold mining is the largest human source of mercury pollution, accounting for over one-third of global emissions and releasing about 800 tons of mercury into water bodies, affecting the soil and drinking water of communities close to rivers.³² Peru declared a temporary state of emergency in 2016 over widespread mercury poisoning in Madre de Dios, a jungle province rife with illegal mining.³³ A study by Carnegie Institution for Science in Washington, D.C., found that nearly four in five adults in Lima tested positive for dangerous levels of mercury.³⁴

Environmental impact











Sustainable economic growth depends on creating the conditions that allow people to have decent jobs that stimulate the economy while not harming the environment. If not managed properly, the mining and processing operations of precious minerals can have a substantial negative impact on the surrounding environment. To ensure environmental stewardship, the legitimate mining industry is heavily regulated to ensure that natural resources are used effectively, and that chemicals and waste are reduced, recycled or otherwise managed responsibly.

Illegal operators do not adhere to environmental regulation and generally disregard the impacts of their activities on the environment and the sustainable, efficient use of natural resources (SDG 12). The illegal excavation of minerals often destroys large parcels of land, causes deforestation (SDG 13 and 15), soil erosion, pollution of soil, air and water (SDG 6 and 14).35 Apart from creating health and safety hazards for people living in these areas, wildlife also is being impacted.

- The Amazon River Basin, home to the world's largest rainforest, is severely impacted by illegal mining. Informal and mostly illegal, gold mining in and around the rainforest involves forest removal, soil excavation and the use of liquid mercury, which together pose significant threats to biodiversity, water quality, forest carbon sinks and human health.³⁶ It is estimated that approximately 30-40 metric tons of mercury are dumped into the environment annually.
- 19,000 hectares of rainforest in Chocó, Colombia, have been destroyed as a result of the country's multibillion-dollar illegal trade in gold.³⁷ Colombia ranks second only to China in mercury pollution.³⁸
- Madagascar's protected rainforest has been impacted by the illegal trade in sapphire, bringing deforestation and destruction to areas renowned for biodiversity and threatening the natural habitat of the lemur species.³⁹
- Illegal gold mining in Ghana degrades forests, pollutes around 75 percent of the waterways, and erodes biodiversity.⁴⁰ The water contaminated with heavy metals has resulted in poisoning of those who use the water.⁴¹

Funding conflict



Illicit trade in precious metals and gemstones share a dark nexus with organized crime, terrorism and bloody conflict across the world, undermining global efforts to achieve SDG 16 (Peace, justice and strong institutions).

- Armed groups in Colombia extort local officials in an effort to dominate the US\$2.4 billion illegal gold trade.42
- Drug cartels in South America use illegal drug profits to invest in gold mining and then sell gold to American and multinational companies, thereby laundering staggering amounts of illicit profits. Some estimates suggest that the trade in illicit gold has become more profitable than cocaine.⁴³
- The illegal trade of tantalum, tungsten, tin and gold (also referred to as 3TG) from the Democratic Republic of Congo and surrounding countries underpins conflict throughout Africa, finances armed groups and encourages forced labor, human rights abuses, corruption and money laundering.44
- Illicit diamond trafficking has funded brutal wars in countries such as Angola, Central African Republic, the Democratic Republic of Congo, Liberia, and Sierra Leone, resulting in the death and displacement of millions of people. 45
- Afghan Taliban and other jihadi groups earn as much as US\$200 to US\$300 million annually from illegal mining, the second-largest revenue stream after narcotics.46

CONCLUSIONS



Limits opportunities for skill development and direct employment in the legitimate mining industry.



Illegal mining practices disregard health and safety requirements for miners and represent a significant source of mercury pollution globally.



Runoff and improper production practices contaminate water basins with heavy metals and other poisons and renders drinking water unsafe for human consumption.



Prevents countries from developing mining resource endowments to drive wider national economic growth; and perpetuates child labor and other human rights violations.



Drains investment in essential infrastructure such as roads that enable wider social and economic progress.



Disregard for mining regulations leads to inefficient use of natural resources and exacerbates the challenge to effectively manage chemical and other wastes.



Forest removal and soil excavation limit CO2 absorption capacities of forests.



Contamination of rivers and underground water basins jeopardizes biodiversity and underwater ecosystems.



Illegal mineral excavation accelerates deforestation and degrades natural animal habitats.



Funds organized crime, terrorism and military conflict that undermines peace, justice and good governance.

IMPLICATIONS AND NEXT STEPS

The sweeping, negative impacts of illicit trade on the SDGs point to a wide range of challenges for both governments and business. Hence, it will be expedient to:

Attend to developing and least developed countries. The alarming consequences of illicit trade are especially evident in developing countries hard-pressed to monetize resources, commercialize innovation, attract investment, establish lasting job opportunities and create genuine, long-term economic growth. As such, it will be critical to support the capabilities of developing countries to better defend against illicit trade by inter alia taking stock of national government experiences, challenges, priorities and requests for assistance while also identifying where "in-country" efforts would be most valuable and most effective.

Account for the interconnected nature of the challenge. As noted by the UN, the SDGs are integrated and indivisible in nature with significant inter-linkages across the goals and targets. Ending poverty, for example, must go hand-in-hand with strategies that build economic growth and address a range of social needs including education, health, social protection, job opportunities and environmental stewardship. By the same token, a holistic approach is needed to address the significant number of interdependencies and overlapping problems relating to multiple forms of illicit trade. The impacts of illicit trade cannot be examined effectively in isolation of other sectors, nor can they be addressed in isolation of the SDGs.

Promote shared responsibility. Improving public-private dialogue and promoting partnerships will be needed to address the global nature of illicit trade. Public and private actors can play an important role in determining a responsive, evidence-based work program for addressing illicit trade, including delineation of best practices, and, where applicable, development of regulatory standards.

Prioritize the policy response. The findings from this study demonstrate that illicit trade is a significant deterrent to achieving the SDGs. As governments go about formulating policies and implementing programs to achieve the SDGs, a first order consideration should be to reduce the deterrent forces of illicit trade and plug the fiscal leakages associated with it. This approach has the immediate effect of adding resources and revenues back into the global economy, putting more policy tools back on the table, and reducing timelines, costs and other hurdles to achieving the goals. Consequently, a more level playing field, without the economic drags of illicit trade, can improve the efficiency and effectiveness of policies and programs governments are taking to stimulate growth, employment and investment to achieve the SDGs.

Foster political will and leadership. Addressing the threat of illicit trade on the SDGs will require political will of government officials at all levels to prioritize the problem, actively pursue solutions and invest in enforcement measures. This study provides a first step in raising awareness on the threat of illicit trade on achieving the SDGs. The work also serves as a roadmap to help policy makers identify areas that merit greater attention and to formulate effective strategies to address the serious threats posed by illicit trade.

NOTES

- UNICRI. (2016). Strengthening the Security and Integrity of the Precious Metals Supply Chain Technical Report. Torino: UNICRI.
- ² Mathias, E., & Feys, B. (2016). Implementing AML/CFT Measures in the Precious Minerals Sector: Preventing Crime While Increasing Revenue. Washington, DC: IMF. Retrieved from: https://www.imf.org/external/pubs/ft/tnm/2014/tnm1401a.pdf
- ³ Mathias, E., & Feys, B. (2016). Implementing AML/CFT Measures in the Precious Minerals Sector: Preventing Crime While Increasing Revenue. Washington, DC: IMF. Retrieved from: https://www.imf.org/external/pubs/ft/tnm/2014/tnm1401a.pdf
- ⁴ Mathias, E., & Feys, B. (2016). Implementing AML/CFT Measures in the Precious Minerals Sector: Preventing Crime While Increasing Revenue. Washington, DC: IMF. Retrieved from: https://www.imf.org/external/pubs/ft/tnm/2014/tnm1401a.pdf
- ⁵ World Gold Council. (n.d.), Responsible Gold, London: WGC, Available at: https://www.gold.org/who-we-are/ourmembers/responsible-gold Accessed 29 October 2018.
- ⁶ Financial Action Task Force, (2013), Money laundering and terrorist financing through trade in diamonds, Paris: FATF/ OECD. Retrieved from: http://www.fatf-gafi.org/media/fatf/documents/reports/ML-TF-through-trade-in-diamonds.pdf
- ⁷ See also Global Policy Forum. (2018). Minerals in Conflict. New York: Global Policy Forum. Available at: https://www. globalpolicy.org/the-dark-side-of-natural-resources-st/minerals-in-conflict.html; Global Witness. (2018). Conflict Diamonds. n.p.: Global Witness. Available at https://www.globalwitness.org/en-gb/campaigns/conflict-diamonds/#more Accessed 29 October 2018.
- ⁸ UNICRI. (2016). Strengthening the Security and Integrity of the Precious Metals Supply Chain Technical Report. Torino: UNICRI.
- ⁹ Mathias, E., & Feys, B. (2016). Implementing AML/CFT Measures in the Precious Minerals Sector: Preventing Crime While Increasing Revenue, Washington, DC: IMF, Retrieved from: https://www.imf.org/external/pubs/ft/tnm/2014/tnm1401a. pdf; see also Perez, R. (2017). Artisanal and Small-Scale Mining and Sustainable Development Goals. Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development. Retrieved from: https://www.igfmining.org/wpcontent/uploads/2018/09/Session-19-ASM-and-SDGs-by-Romain-Perez.pdf
- 10 UNDP, WEF, CCSI, & SDSN, (2016), Mappina Minina to the Sustainable Development Goals; An Atlas, Coloany/Geneva; World Economic Forum, Available at: http://www.undp.ora/content/undp/en/home/librarypage/poverty-reduction/ mapping-mining-to-the-sdgs--an-atlas.html
- ¹¹ Mathias, E., & Feys, B. (2016). Implementing AML/CFT Measures in the Precious Minerals Sector: Preventing Crime While Increasing Revenue. Washington, DC: IMF. Retrieved from: https://www.imf.org/external/pubs/ft/tnm/2014/tnm1401a.pdf
- ¹² Global Initiative Against Transnational Organised Crime. (2015). Organized Crime: A Cross-Cutting Threat to Sustainable Development. Geneva: Global Initiative against Transnational Organized Crime. Retrieved from: http://globalinitiative. net/wp-content/uploads/2015/01/global-initiative-organized-crime-as-a-cross-cutting-threat-to-developmentjanuary-2015.pdf
- ¹³ Bishop, P. H. (2011), Illicit trafficking of precious metals and its destabilizing factors in systems of affected countries. Freedom from Fear Magazine, 9. Available at: http://f3magazine.unicri.it/?p=598
- ¹⁴ Crowley, K. (2015, January 27). Ganas live underground for months to feed illegal gold trade. Fin24. Available at: https://www.fin24.com/Companies/Mining/Gangs-live-underground-for-months-to-feed-illegal-gold-trade-20150126
- ¹⁵ Crowley, K. (2015, January 27). Gangs live underground for months to feed illegal gold trade. Fin24. Available at: https://www.fin24.com/Companies/Mining/Gangs-live-underground-for-months-to-feed-illegal-gold-trade-20150126
- ¹⁶ Hosken, G., Jamal, S., Bornman, J., & Cowan, K. (2017, March 27). The truth about South Africa's illegal mining industry. Rand Daily Mail. Available at: https://www.businesslive.co.za/rdm/business/2017-03-27-the-truth-about-south-africasillegal-mining-industry/
- ¹⁷Long, K. (2015, October 23). Myanmar's \$40 billion jade trade labeled "biggest natural resource heist" in modern history. ABC. Available at: http://www.abc.net.au/news/2015-10-23/myanmar-jade-trade-biggest-heist-in-modernhistory/6880144
- 18 Pve, D. (2016, September 26), The dark shadow of Myanmar's jade trade, Financial Times, Available at: https://www. ft.com/content/cf46e086-6909-11e6-a0b1-d87a9fea034f
- ¹⁹ International Council on Mining and Metals. (2016). Role of Mining in National Economies, third edition. London: ICMM. Retrieved from: https://www.icmm.com/website/publications/pdfs/social-and-economic-development/161026_icmm_
- ²⁰ International Council on Mining and Metals. (2016). Role of Mining in National Economies, third edition. London: ICMM. Retrieved from: https://www.icmm.com/website/publications/pdfs/social-and-economic-development/161026_icmm_ romine_3rd-edition.pdf

- ²¹ International Council on Mining and Metals. (n.d.), Metals & Minerals / Making a positive contribution to the SDGs / Build resilient infrastructure, promote sustainable industrialislation and foster innovation. London: ICMM. Available at: https://www.icmm.com/en-gb/metals-and-minerals/making-a-positive-contribution/industry-innovation-andinfrastructure; UNDP, WEF, CCSI, & SDSN. (2016). Mapping Mining to the Sustainable Development Goals: An Atlas. Cologny/Geneva: World Economic Forum. Available at: http://www.undp.org/content/undp/en/home/librarypage/ poverty-reduction/mapping-mining-to-the-sdgs--an-atlas.html
- ²² International Council on Mining and Metals. (2012). Human rights, social development and the mining and metals industry. London: ICMM. Retrieved from: https://www.commdev.org/userfiles/MC-HumanRights-InBrief[1].pdf
- ²³ Buxton, A. (2012). MMSD+10: Reflecting on a decade of mining and sustainable development. London: International Institute for Environment and Development. Retrieved from: http://pubs.iied.org/pdfs/16041IIED.pdf
- ²⁴Lempriere, M. (2017, February 6). Why is illegal mining flourishing in Pakistan? Mining Technology, Available at: https:// www.mining-technology.com/features/featurewhy-is-illegal-mining-flourishing-in-pakistan-5731542/
- ²⁵ Shahinian, G. (2011). Rep. of the Spec. Rapporteur on Contemporary Forms of Slavery, including its causes and consequences, U.N. Doc. A/HRC/18/30. New York: United Nations, Available at: https://documents-dds-ny.un.org/doc/ UNDOC/GEN/G11/143/33/PDF/G1114333.pdf?OpenElement
- ²⁶ Crowley, K. (2015, January 27). Gangs Live Underground for Months to Feed Illegal Gold Trade. Fin24. Available at: http://www.fin24.com/Companies/Mining/Gangs-live-underground-for-months-to-feed-illegal-gold-trade-20150126
- ²⁷ Shahinian, G. (2011). Rep. of the Spec. Rapporteur on Contemporary Forms of Slavery, including its causes and consequences, addendum. U.N. Doc. A/HRC/18/30/Add.2. New York: United Nations. Available at: https://www.ohchr. org/Documents/Issues/Slavery/SR/A-HRC-18-30-Add.2_en.pdf
- ²⁸ AFP. (2015, November 2). Gang Wars Erupt over Abandoned Mines in South Africa. News24. Available at: www.news24. com/SouthAfrica/News/Gang-wars-erupt-over-abandoned-mines-in-SA-20151102; Mwareya, R. (2014, December 2). South Africa's "gold slaves". Equal Times. Available at: www.equaltimes.org/south-africa-s-gold-slaves#.Vp3x5YiGO00
- ²⁹ See for example: Hodal, K. (2017, May 8). India to legalise mica mining in bid to tackle endemic child labour. The Guardian. Available at: https://www.theguardian.com/global-development/2017/may/08/india-to-legalise-micamining-bid-tackle-endemic-child-labour-guardian-investigations; Mahr, K. (2017, April 3). Tanzania struggles to end child labor from the lure of gold. Reuters. Available at: https://www.reuters.com/article/us-tanzania-mining-children-feature/ tanzania-struggles-to-end-child-labor-from-the-lure-of-gold-idUSKBN176007
- 30 ILO. (2006). Child labour in gold mining: The problem. Geneva: International Labour Organisation. Retrieved from: http://www.ilo.org/ipecinfo/product/download.do?type=document&id=4146
- ³¹ UNICRI. (2016). Strengthening the Security and Integrity of the Precious Metals Supply Chain Technical Report. Torino: UNICRI.
- 32 UNEP (2013). Global Mercury Assessment 2013: Sources, Emissions, Releases, And Environmental Transport. Geneva: UNEP. Retrieved from: http://wedocs.unep.org/bitstream/handle/20.500.11822/7984/-Global%20Mercury%20 Assessment-201367.pdf?sequence=3&isAllowed=y; see also Darkwah, J. A. (2017). The creeping mercury menace - a solution is here. Accra: UNDP Ghana. Available at: http://gh.one.un.org/content/unct/ghana/en/home/media-centre/ news-and-press-releases/the-creeping-mercury-menace.html
- 33 Fraser, B. (2016). Peru's gold rush prompts public-health emergency. Nature. Available at: https://www.nature.com/ news/peru-s-gold-rush-prompts-public-health-emergency-1.19999
- ³⁴ Carnegie Amazon Mercury Ecosystem Project (CAMEP). (2013). Mercury, Amazon, Environment, Peru, Public Health [Research Brief #1]. Stanford, CA: Carnegie Institution for Science. Retrieved from: https://dge.carnegiescience.edu/ research/CAMEP/CAMEP%20Research%20Brief%20-%20Puerto%20Maldonado%20English%20-%20FINAL.pdf
- 35 See also Toledano, P. & Roorda, C. (2014). Leveraging Mining Investments in Water Infrastructure for Broad Economic Development: Models, Opportunities and Challenges [CCSI Policy Paper]. New York: Columbia Center on Sustainable Investment. Available at: https://academiccommons.columbia.edu/doi/10.7916/D8PZ57K9
- ³⁶ Asner, G. P. & Tupayachi, R. (2017). Accelerated losses of protected forests from gold mining in the Peruvian Amazon. Environmental Research Letters, 12, 1-8. Retrieved from: http://iopscience.iop.org/article/10.1088/1748-9326/aa7dab/pdf
- ³⁷ Ebus, B. (2016, November 16). Illegal Gold Mining in Colombia is Destroying the Rainforest. Newsweek. Available at: http://www.newsweek.com/2016/11/25/colombia-illegal-gold-mining-521717.html
- 38 Muños, S. G. (2016). Dividendos Ambientales de la Paz: Oportunidades papa Construir una Paz Sostenible [Powerpoint presentation]. n.p.: DNP. Available at: https://planeacionnacional-my.sharepoint.com/:p:/r/personal/prensa-dnp_dnp_ gov_co/_layouts/15/WopiFrame.
- ³⁹ DW News. (2017, November 28). Madagascar's illegal sapphire trade harms environment. DW News. Available at: http://www.dw.com/en/madagascars-illegal-sapphire-trade-harms-environment/av-41557319

- ⁴⁰ Stanger, D. (2015). Galamsey: Environmental Impact of Illegal Gold Mining in Ghana. Georgetown Environmental Law Review. Available at: https://gelr.org/2015/02/13/galamsey-environmental-impact-of-illegal-gold-mining-in-ghana/; Boadi, S., Nsor, C. A., Antobre, O. O., & Acquah, E. (2016). An analysis of illegal mining on the Offin shelterbelt forest reserve, Ghana: Implications on community livelihood. Journal of Sustainable Mining, 15(3), 115-119. Available at: http:// ac.els-cdn.com/\$2300396016300507/1-s2.0-\$2300396016300507-main.pdf?_tid=efec1db4-7c1e-11e7-8da5-00000aacb35d &acdnat=1502185977_8347a1dccd19e62a2191cca289ba3f63
- ⁴¹ Stanger, D. (2015). Galamsey: Environmental Impact of Illegal Gold Mining in Ghana. Georgetown Environmental Law Review. Available at: https://gelr.org/2015/02/13/galamsey-environmental-impact-of-illegal-gold-mining-in-ghana/
- ⁴² Ebus, B. (2016, November 16). Illegal Gold Mining in Colombia is Destroying the Rainforest. Newsweek. Available at: http://www.newsweek.com/2016/11/25/colombia-illegal-gold-mining-521717.html
- ⁴³ Weaver, J., Nehamas, N., & Gurney, K. (2018, January 16), How drug lords make billions smugaling gold to Miami for your jewelry and phones. Miami Herald. Available at: http://www.miamiherald.com/news/local/community/miamidade/article194187699.html
- ⁴⁴ Moodie, A. (2014, April 23). Amid legal uncertainty on conflict minerals, alternatives emerge. The Guardian. Available at: https://www.theguardian.com/sustainable-business/conflict-free-minerals-ruling-litigation-apple-intel; see also The EU's Conflict Minerals Regulation, available at: http://ec.europa.eu/trade/policy/in-focus/conflict-minerals-regulation/ regulation-explained/
- ⁴⁵ Financial Action Task Force. (2013). Money Laundering and Terrorist Financing Through Trade in Diamonds. Paris: FATF / OECD. Retrieved from: http://www.fatf-gafi.org/media/fatf/documents/reports/ ML-TF-through-trade-in-diamonds.pdf?TSPD_101_









































ALCOHOL

















COUNTERFEIT AND PIRACY



















FORESTRY















IUU FISHING



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PETROLEUM





















PRECIOUS METALS AND GEMSTONES

PHARMACEUTICALS



















TOBACCO













TRAFFICKING IN PERSONS

































