



ENVIRONMENTAL STEWARDSHIP

OUR VISION

is a future where natural resources contribute to equitable peace and development, **including responsible and sustainable environmental practices.**



What do we mean by environmental stewardship?

Environmental stewardship is a broad term that explains how we interact with the environment to ensure protection, conservation, and sustainability.

Environmental stewardship is one of IMPACT's five focus areas. We contribute to global efforts to reduce environmental harms in resource extraction in high-risk contexts. While all mining is inherently destructive, artisanal and small-scale mining (ASM) is unique. It uses rudimentary methods, tends to occur in environmentally sensitive areas and areas susceptible to conflict, and is often driven by poverty.

Nonetheless, IMPACT sees ASM as an important contributor to equitable development and a path to strengthening communities in conflict-affected and high-risk areas.

Our two-step approach to environmental stewardship includes:

- 1 Empowering local communities to acknowledge and understand the environmental impacts of their mining activities, including how these may differ for women and men
- 2 Building the capacity of local communities to take action to reduce those environmental impacts

As part of our mission to transform how natural resources are managed in areas where security and human rights are at risk, IMPACT works with artisanal miners and other stakeholders across civil society, government, and the private sector to investigate and develop approaches to natural resources that improve security, development, and equality.

Extraction of natural resources creates pollution and other harmful environmental impacts, many of which disproportionately affect women. These threats, along with the risk of violence, are exacerbated as climate change increases competition over natural resources.

That's why any transformation of how natural resources are managed must go hand in hand with advancing gender equality, environmental protection, and peace.

WE REVEAL

We research how mismanagement of natural resources impacts the environment, exacerbates conflict, and increases the prevalence of human rights violations. With data gathered through technical environmental assessments, gender impact assessments, and conflict risk analysis, we analyze the effects of resource extraction on the environment, their impact on conflict and insecurity for women and men, and ways to minimize their negative consequences. We also monitor and investigate how climate change impacts security and human rights.

WE INNOVATE

We develop innovative approaches to integrate environmental stewardship into natural resource management strategies in areas where security and human rights are at risk.

We undertake outreach to improve understanding of environmentally responsible practices in the natural resource sector, such as ecosystem management, responsible extraction, and mercury reduction. We provide technical assistance and capacity building to partners to implement new approaches that integrate environmental stewardship, including working with women and men artisanal miners to reduce mercury use.

We take a gendered approach to environmental stewardship, recognizing that the impacts of environmental degradation are not experienced equally by women and men.

WE ENGAGE

We advance multi-stakeholder dialogue to promote environmental stewardship in the natural resource sector by sharing the findings of our research and approaches, as well as recommendations.

We engage with policymakers to adopt environmentally conscious reforms into policies. We also engage with community groups to better understand the risks of natural resource extraction and provide guidance on how to minimize the environmental impact and the potential for conflict of their work.



A person wearing a red helmet and dark clothing is riding a red motorcycle on a wide, reddish-brown dirt road. The road is flanked by dense green vegetation and tall palm trees. In the distance, other people can be seen walking on the road. The sky is overcast.

ENVIRONMENTAL STEWARDSHIP IN ACTION: JUST GOLD PROJECT

Among the organizations working to encourage better practices in artisanal mining, IMPACT leverages in-house technical mining and environmental expertise to help eliminate mercury, protect biodiversity, and rehabilitate the land while improving the health and safety of miners.

IMPACT's Just Gold project is the first to successfully trace conflict-free and legal artisanal gold from mine site to export while applying regional and international standards applicable to conflict-affected and high-risk areas, all while supporting the advancement of gender equality, security, and environmental protection.

Just Gold illustrates how our approach to environmental stewardship generates positive results for women and men artisanal gold miners and their communities.

Over **1,000 miners** participating in the Just Gold project **sold 24 KG of traceable gold** onto the international market. Many also increased their awareness on health and safety, with **81% now** saying they **understand mining harms the environment**.





WHAT IS JUST GOLD?

The Just Gold project brings legal, traceable, and conflict-free artisanal gold to international markets from communities where security and human rights are at risk.

IMPACT works with miners, traders, and exporters to create incentives for legal sales and provides capacity building to implement the traceability and due diligence required by the Just Gold project, in alignment with regional and international standards.

The project also supports government agencies in building their capacity to manage, support, and regulate environmentally friendly mining practices.

Just Gold was first launched in 2015 across six mine sites in Democratic Republic of Congo's (DRC) Ituri Province. Through the Just Gold project, consumers have been able to buy traceable, legal, and conflict-free artisanal gold from DRC for the first-time ever, with over 24 kg of gold from the project making its way onto the international market between 2017-2019. In 2019, the project launched in Côte d'Ivoire.

Just Gold helps miners produce and trade traceable and responsible artisanal gold while protecting the environment and improving their gold yields.

Our comprehensive technical assistance program starts with analysis on environment, mine site, gender, and conflict assessments. We provide capacity building on gender and human rights, peacebuilding, as well as everything from extraction efficiency to environmental mitigation.

Learning topics include:

- why and how to do environmentally responsible mining
- implications of mining on the environment, biodiversity, and local communities
- how to do site-specific environmental impact assessments and risk management plans
- importance of gender impact analysis in assessments and afterward
- how to reduce or eliminate mercury
- improvement of mine productivity and processing efficiency
- management of mine sites and ecosystems
- management of mine tailings
- long-term planning, such as mine site rehabilitation
- legal requirements and regulations

WHY TECHNICAL ASSISTANCE?

Technical assistance reinforces efforts to formalize and professionalize ASM.

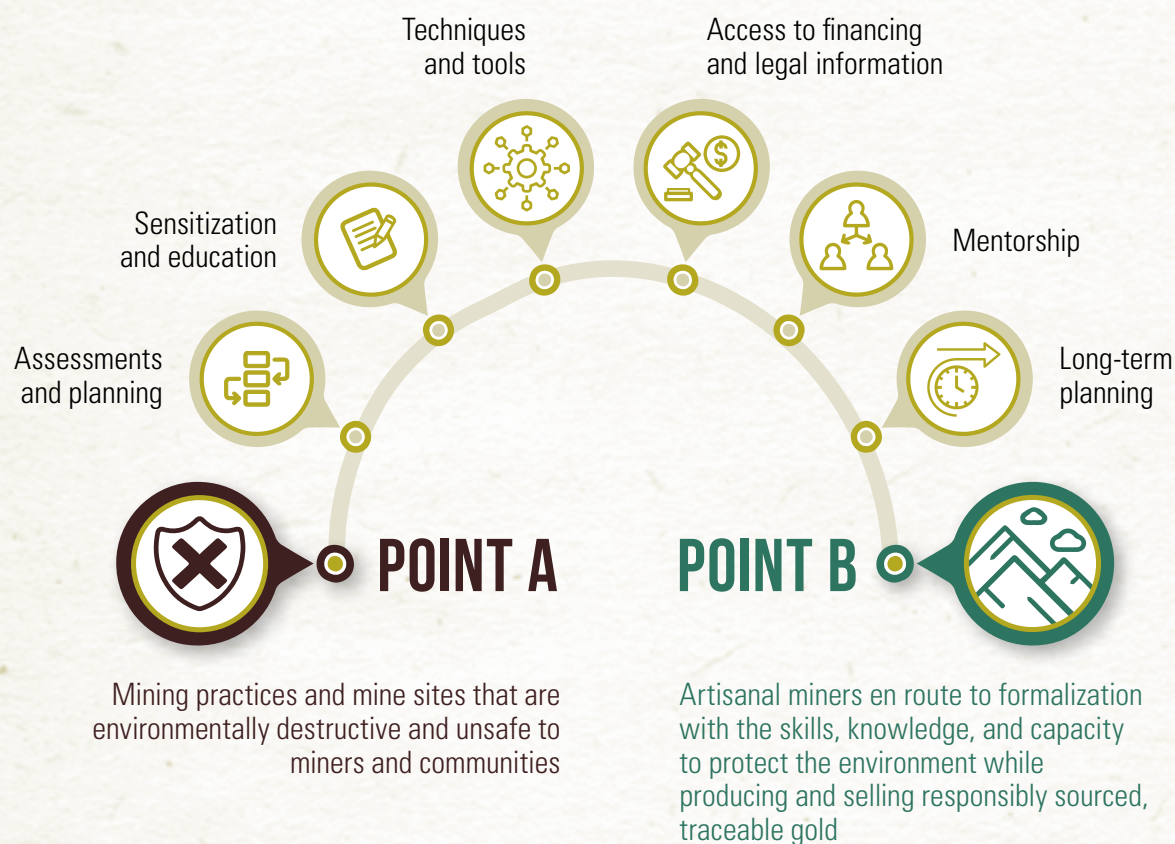
Technical assistance offers miners the skills, knowledge, and capacity to maintain environmentally responsible mining operations while also supporting gender equality and security. This is augmented when miners in turn share their acquired skills with others through peer learning.

Market actors increasingly expect evidence of less environmental degradation in mineral extraction.

Yet preservation of biodiversity, rehabilitation of mine sites, environmental management, ecosystem preservation, and mercury reduction are seldom prioritized over production and profits, particularly among artisanal miners who lack the knowledge and resources to incorporate environmental protection into their activities.

Not only do traditional ASM practices pollute the environment, they expose miners to dangerous working conditions. Miners want to be safe and healthy but often lack the skills and capacity (technical and financial) to improve mine safety, let alone recognize environmental hazards, especially ones that are less visible or that develop over time.

Supporting Artisanal Miners to Become Environmentally Responsible











TECHNICAL ASSISTANCE TO PROTECT THE ENVIRONMENT

The Just Gold project began with a technical assessment at project mine sites in DRC. The assessments led to recommendations regarding mining approaches, equipment, and training that would reduce the negative impact of ASM on the environment while improving mine site productivity and miners' health and safety.

We also developed and tested a Gender Impact Assessment (GIA) toolkit to analyze the ways in which gender equality is impacted by technical assistance to ensure Just Gold would help improve the position of women and disadvantaged men while achieving its other goals.

With support from the United Nations Environment Programme, IMPACT supplemented technical and gender impact assessments with environmental field assessments that examined effects on the environment of such mining factors as land use, mercury, and occupational safety and health. We then developed a strategy to implement the recommended environmental management techniques and technical assistance.

	 Issues Identified	 Technical Assistance Provided	 Success Achieved
Biodiversity Preservation	<p>Miners and the cooperative lack capacity</p> <p>Mining practices, methods, and equipment contribute to biodiversity loss</p> <p>Former mine sites are left as open pits that are contaminated and can be dangerous to the community</p> <p>Significant deforestation</p>	<p>Technical and environmental impact assessments at mine sites</p> <p>Training for women and men miners on gold mining, geology, and prospecting to better identify a gold-rich area and minimize land destruction</p> <p>Participatory planning with the women and men members of the cooperative to create and implement environmental management plans</p> <p>Development and implementation of a weekly mine site rehabilitation plan</p> <p>Establishment of tree nurseries for forest rehabilitation</p>	<p>Over 20 mining pits were backfilled across five sites</p> <p>More than 7,700 trees were planted in tree nurseries</p> <p>56% of miners increased their awareness of the environmental impacts of ASM over three years— with 81% of miners in the project agreeing mining harms the environment</p>
Mercury Reduction and Elimination	<p>Miners and cooperative lack awareness about impacts of mercury on health and environment</p> <p>High use of mercury in hard rock gold mining</p> <p>Unsafe handling of mercury, both at mine site and during smelting</p>	<p>Comprehensive training for women and men miners, ASM community members, and policymakers on risks posed by mercury to health, safety, and environment</p> <p>Introduction for women and men miners to improved handling techniques, including management of the use and disposal of mercury</p> <p>Planning and safety protocols for handling chemicals</p> <p>Implementation of mercury-reduction techniques through use of retorts at all hard rock sites</p> <p>Installation of mercury-free processing plants at two mine sites with a wet mill, centrifuge, and shaker tables</p>	<p>Two amalgamation houses constructed in two mine sites as first step towards reducing mercury pollution</p> <p>Two mercury-free processing plants installed at two mine sites</p> <p>69% of miners increased their awareness about the environmental risks caused by mercury over three years</p> <p>70% of miners increased their awareness about the health risks caused by mercury over three years</p> <p>Increased use of dedicated locations of mercury amalgamation by miners over three years, with 100% of women miners and 83% of men miners using the dedicated spots</p>

	 Issues Identified	 Technical Assistance Provided	 Success Achieved
Water Protection	<p>Local water is contaminated with mercury and chemicals because the river is used for mineral washing</p> <p>Mine site tailings are improperly disposed of, often draining into the local river</p>	<p>Creation and use by women and men miners of dedicated washing centres for mine site processing</p> <p>Development and implementation of a proper plan for disposal of waste, including mercury, used acid, and slag</p> <p>Safe disposal of tailings and training for women and men miners on how to manage them</p>	<p>Washing centres created in two mine sites</p> <p>Tailings disposal areas established in 2 mine sites</p>
Health and Safety	<p>Significant dust and air pollution</p> <p>Lack of personal protective equipment (PPE)</p> <p>Unsanitary conditions at the mine site</p>	<p>Introduction of wet processing equipment and techniques to minimize dust</p> <p>Training for women and men miners on the importance of PPE, mine site safety, and occupational health</p> <p>Distribution of PPE to women and men members of the cooperative</p>	<p>Two wet processing plants installed in two mine sites</p> <p>PPE including helmets, boots, eye and ear protection distributed to the mining cooperative</p> <p>87% of women miners have access to PPE and 91% of them wear it each time they do mining activities</p>

WHAT HAS THE JUST GOLD PROJECT ACHIEVED?

Improved mercury handling and mercury reduction

The Just Gold project has helped participating miners become more knowledgeable about the risks and hazards of mercury. The project has successfully reduced the use of mercury in gold processing while helping miners take steps toward eliminating it. With the goal of moving towards mercury-free processing across all mine sites, we use a phased process that includes:

- raising awareness and support for environmental protection
- teaching proper handling and use of mercury to prevent its release into the environment

- maintaining traditional mercury-free processing techniques in alluvial mine sites
- promoting and facilitating the use of retorts from locally sourced materials for mercury capture and recycling
- providing personal protective equipment for handling mercury
- establishing amalgamation ponds and centralized amalgamation centres to distance mercury handling from river channels
- setting up mercury-free plants to eliminate mercury use in hard rock processing through improved gravity techniques

Thanks to Just Gold, demand for retorts has increased, with miners having greater awareness of how the equipment reduces mercury exposure. Miners also understand how improved processing and better methods allow them to process low value gold ore at a profit. Future phases of the project will support miners to recover mercury-free gold from the tailings.

Two mercury-free processing plants have been installed to increase production and improve safety and environmental outcomes in the community, including:

- improved mechanization, centralized operations, and gold aggregation
- increased daily processing capacity (more than three times)
- increased earnings
- reduced exposure to dust
- recovery of gold by a combination of centrifuges and sluices
- concentrated upgrade by shaking tables
- management of tailings for future reprocessing
- improved health and safety procedures
- centralized and streamlined record keeping
- equalized access for women to technology and equipment
- equalized revenue sharing between women and men miners, the cooperative, and women and men in the community



Recognition and protection of the environment and biodiversity

With the goal of protecting the environment and safeguarding biodiversity, Just Gold has successfully decreased the negative impacts of mining on the environment by:

- raising awareness and support for environmental protection
- promoting and supporting mine rehabilitation and reforestation
- decreasing water pollution
- facilitating the development of environmental management plans

Miners and the cooperative are now actively leading efforts to mitigate environmentally harmful mining practices and make improvements, in concert with the local community and state actors. This was made possible through the technical assistance and support we provided to improve:

- management and leadership
- government and community engagement
- participatory and gender inclusive planning for rehabilitation and environmental protection
- establishment of tree nurseries to be maintained by the cooperative
- tree planting in areas unaffected by mining where trees have been removed
- awareness, capacity, and financial support for tree nurseries and related activities

Sustainability and long-term planning

The local artisanal mining cooperative is a primary partner of Just Gold. The cooperative plays a key role in ensuring environmentally responsible mining practices are maintained by overseeing the continuity of the Just Gold conflict-free gold supply chain and the processes and practices outlined above. The cooperative is trained in implementing the environmentally friendly technical assistance and will continue to provide this support to the women and men artisanal miners in the community.

The Just Gold project also supports government agencies in building their capacity to manage mercury and mercury free processing methods, to manage toxic waste, and rehabilitate mine sites as ways of protecting the environment.



Over 3 years, 70% of miners in the Just Gold project **increased their awareness** about the health risks caused by mercury. Now, **100% of women miners use** the dedicated **mercury amalgamation spots**.



WHY CONTINUE TO SUPPORT ARTISANAL MINING COMMUNITIES TO MINE GOLD RESPONSIBLY?

Environmental stewardship is an important contributor to sustainable development and peace in ASM communities.

Gold plays an important role in communities. It feeds children, pays school fees, builds homes, and promises futures.

Demand is growing for responsible gold, including “green” gold that is mercury-free.

Projects like Just Gold contribute to larger global conversations about how the negative environmental impacts of resource extraction can be reduced while empowering local communities in multiple ways.

IMPACT continues to share learning and experiences from the field with networks such as the Global Mercury Partnership (part of the United Nations Environment Programme) and the International Conference on the Great Lakes Region. Our mercury reduction efforts support the implementation of the Minamata Convention on Mercury, a global treaty to protect human health and the environment from the adverse effects of mercury.

By sharing our experiences with others, IMPACT is helping facilitate a major leap forward in reducing mercury use in ASM and promoting healthier and safer communities while advancing gender equality, development, and peace worldwide.

Photos of miners participating in the Just Gold project in Democratic Republic of Congo's Ituri Province, Mambasa Territory, between 2017-2018.

Photos by Sven Torfinn/IMPACT: pages 2, 3, 4, 6, 9 (middle), 12

Photos by Zuzia Danielski/IMPACT: pages 9 (left and right), 10, 11

The Just Gold project, part of IMPACT's Building Responsible Supply Chains for Development in Africa's Great Lakes Region program, is undertaken with the financial support of the Government of Canada provided through Global Affairs Canada.

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September 2020

