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# SUPPORTING ARTISANAL & SMALL-SCALE MINING COMMUNITIES DURING THE COVID-19 PANDEMIC







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## ABBREVIATIONS AND ACRONYMS

<b>ASM</b>	artisanal and small-scale mining
<b>CEASOP</b>	Collaborative Efforts to Alleviate Social Problems
<b>CIBART</b>	Centre for Indian Bamboo Resource and Technology
<b>EGPS</b>	Extractives Global Programmatic Support
<b>M&amp;E</b>	monitoring and evaluation
<b>RAJANO</b>	Network for Youth and Adult Education Advocacy

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**In 2020, the World Bank projected that the COVID-19 pandemic could push more than 100 million people into extreme poverty.**

The estimated 45 million people around the world working in artisanal and small-scale mining (ASM) were particularly vulnerable because of the informal, often precarious nature of their working conditions and lack of access to social safety nets.

At the height of the initial lockdown, as mineral prices dropped and mining sites closed, artisanal and small-scale miners, their families, and their communities suffered large declines in income and rising food insecurity. Without intervention, they were at risk of sliding into poverty. At the same time, there was concern that gains made over several decades to formalize the sector would be eroded, particularly where community tensions were rising.

To address these risks, the World Bank took early action. In May 2020, the Extractives Global Programmatic Support (EGPS) Trust Fund initiated a rapid global survey to identify miners' needs and then used the results to mobilize an emergency response window that raised \$6.6 million in support to ASM communities in 22 countries. This report describes the EGPS Emergency Response Window for ASM Communities Impacted by COVID-19, what it achieved, and what the World Bank has identified as priority areas for action in ASM communities going forward.

# IDENTIFYING THE NEED FOR ACTION

**As early as March 2020, anecdotal reports and some news stories began trickling in about domestic COVID-19-related travel and mobility restrictions and their impact on strategic mineral supply chains and miners working in the informal mining sector.**

In Choco District, Colombia, for example, the sudden closure of gold-buying shops was reportedly leading to food insecurity. “With the closure of all the local gold shops,” noted one woman, “the real threat is not the COVID-19 virus but dying of hunger.” Fears rose that the temporary vacuum of legitimate buyers would force miners to turn to the illicit market, strengthening the hold of terrorist organizations in fragile areas of Africa, such as the Sahel.

Reporting on the conditions facing artisanal and small-scale miners was sparse. More accurate and comprehensive information was needed to help development partners respond to a possible crisis developing in ASM communities around the world.



▲ Conditions during COVID-19: A mining pit is sealed with a police line. Photo provided by Australian National University Enterprise and Yayasan Tambuhak Sinta



## DESIGN OF THE SURVEY

In May 2020, EGPS conducted a global survey to understand how COVID-19 was affecting ASM communities. Using a quantitative survey instrument developed for this purpose in several languages, EGPS worked with 18 development partners to conduct biweekly telephone surveys with 3,400 miners in ASM communities in 22 countries on three continents from May to July 2020. The survey covered seven areas: knowledge of COVID-19 and its prevention, access to work, food security, human security, service delivery, supply chains, and recovery perspectives. Given the small size of the sample and the sampling method, the survey results could not be considered representative of national contexts. The results did, however, provide a snapshot of perceptions and experiences of ASM communities and suggested areas for research and response interventions.



▲ Susan Tango, miner, gold dealer and secretary of the Women in Mining Niger State Chapter. Nigeria, 2021. Photo by Safer World Foundation

## RESULTS OF THE INITIAL SURVEY

### Knowledge of COVID-19

The findings revealed high levels of awareness of COVID-19 in remote mining communities, with a large share of respondents reporting feeling very informed (48 percent) or somewhat informed (33 percent) about COVID-19. In every reporting period, more than 90 percent of respondents reported having heard messages explaining what COVID-19 is and how to protect themselves against the disease. Eighty percent of respondents reported that their main source of information was radio, followed by word of mouth.

The most frequently cited methods of preventing infection were masking and hand-washing. Awareness of both was high across all reporting periods. Although not everyone who was aware of preventive actions took them, more than 60 percent of respondents in each reporting period stated that they were taking preventive measures at mine sites. Major barriers to implementing additional measures were lack of funds to purchase supplies and lack of supplies locally.

Among respondents who were not implementing preventive measures at mine sites, the number who believed that such measures were unnecessary declined significantly over the survey period, as awareness of the importance of prevention grew. Respondents not implementing measures provided a variety of reasons for not doing so, including difficulty working in a face mask, lack of authority on-site to monitor adherence to health and

safety protocols, and the belief that the virus was not present locally. Across sites, the majority of respondents held the view that they were not likely or not at all likely to get infected with the virus that causes COVID-19.

### Access to Work by Women and Men and Changes in Their Roles

Across the countries studied, the results revealed no significant gender gap in changes in access to employment or in the roles of men and women as a result of the pandemic. Women did not retreat from the mines as feared early on in the pandemic. The fact that men and women appeared equally likely to remain in the mines presented an opportunity to cement efforts to empower women and achieve gender equality.

### Human Security

Most respondents reported no change in the security situation in their community. Ethiopia was the only country in which a majority of respondents across all reporting periods indicated an increase in insecurity. Respondents there attributed the increase to illicit mining activity, increased criminality related to lack of employment, and social unrest in June and July 2020. Respondents in Niger, where concerns over insecurity in mining areas had been high, reported no worsening of security.

In five countries (Indonesia, Mozambique,

Nigeria, Sierra Leone, and Uganda), respondents reported a decrease in insecurity compared with pre-COVID-19 levels. Better security in these countries may be attributed to government restrictions on travel, quarantines, and curfews, which may have limited conflict and criminality.

### Food Security

During the early stages of the pandemic, food security was severely affected in the areas surveyed, with up to 76 percent of respondents indicating a decrease in available food in the first reporting period. During the course of the survey, this figure fell to 42 percent, suggesting that the flow of goods and opportunities for employment increased after the initial shock. Respondents cited higher costs of basic food staples and reductions in household income as the top causes of decreased food availability.



▲ Janaki Padhan started a dried fish business as an alternative livelihood to her ASM activities in Ulanda Block of Subarnapur District. India, August 2021. Photo by Mitrabhanu Mishra/SRADHA



## Service Delivery

Less than a quarter of respondents reported having received any services to buffer the impact of COVID-19 measures. Brazil, Colombia, Indonesia, and Sierra Leone were the only countries in which more than half of the respondents reported having received services in response to COVID-19 across all reporting periods.

Governments delivered about half of the services that were provided; civil society organizations, international organizations, and local associations delivered the other half. The top two items delivered were food rations and face masks, followed by disinfectant and cash. In Brazil, mining cooperatives provided food assistance, masks, and COVID-19 tests to vulnerable community members. In Sierra Leone, GemFair—a pilot program of De Beers to purchase ethically sourced diamonds from artisanal miners—delivered emergency food aid, protective equipment, and public health messaging to communities.

## Supply Chains

In all countries surveyed except Ghana and Myanmar, a majority of respondents indicated that the COVID-19 pandemic had affected their ability to work in the mines. Government restrictions on work and access to mining sites were the most disruptive measures in the first two reporting periods.

The effect of the pandemic on ASM operations varied with the mineral mined and the global supply chain structure. Globally, gold and stone aggregates experienced the

greatest variability in price offered and ability to sell on the market. In the first three reporting periods, it was more difficult to sell gold, and prices were lower than before the pandemic in most countries (results varied across countries). In the last two reporting periods, gold prices were reportedly higher than pre-COVID rates, and the ease of selling returned to the pre-crisis level. This rebound may be linked to the fact that investors continued to rely on gold as a stable asset during the pandemic, presenting supply chain actors with lucrative market opportunities sufficient to restart buying. For diamonds, colored gemstones, and cobalt, respondents in all periods reported that it was more difficult to sell minerals and that prices were lower than before the pandemic.

▼ Photo by Responsible Jewelry Transformative



## Recovery Perspectives

Asked about their needs for recovery, respondents overwhelmingly cited financing and access to capital to restart operations. Across countries and reporting periods, almost half of the respondents (47 percent) prioritized financing, followed by access to tools and equipment and support with licensing and regulatory requirements. Only in Mongolia, Mozambique, and Myanmar did a majority of respondents in a majority of reporting periods cite a need other than financing.

In Mongolia and Myanmar, the main priority was support with licensing and regulatory requirements (including customary and surface rent fees). In Mozambique, respondents prioritized access to tools and equipment and support with licensing over financing.

Of the options presented to miners, access to protective equipment was the lowest ranked in the last three reporting periods. This finding is consistent with previous studies that found limited use of personal protective equipment among artisanal and small-scale miners.



# RAPIDLY RESPONDING TO MEET MINERS' NEEDS: PROGRAM RESULTS

**The findings of the global survey formed the basis of fundraising for the COVID-19 emergency response window and defined the priority areas.** The COVID-19 emergency response window became active in September 2020. Over a period of two years, it raised \$6.6 million, making it the largest—and only global—response to COVID for artisanal and small-scale miners in the world.

The emergency response has supported the efforts of 33 international, regional, national, and local organizations to assist ASM communities in 22 countries in four regions (East Asia and Pacific, Latin America and the Caribbean, South Asia, and Sub-Saharan Africa), reaching 59,181 people. It issued 48 awards, a third of them to organizations that support women. Three-quarters of participants engaged in activities that supported mining cooperatives' work on debt escalation, formalization efforts, transparent trade chains, improved market access, and/or access to complementary/alternative

**TABLE 1: DISTRIBUTION OF EGPS ACTIVITIES, BY TYPE**

TYPE OF ACTIVITY SUPPORTED	NUMBER OF ACTIVITIES
Alternative livelihoods	17
Management of cooperatives and associations	16
Policy and advocacy	14
Women's rights and prevention of gender-based violence	13
Network and knowledge sharing	11
Access to markets	7
Laws and regulations	6
Waste disposal and environmental management	6
Due diligence, risk mitigation, and certification	5
Digital literacy	4
Reduction in use of mercury	4

**TABLE 2: NUMBER OF COUNTRIES IMPLEMENTING EGPS ACTIVITIES, BY AREA OF FOCUS**

AREA OF FOCUS	NUMBER OF COUNTRIES
Health	22
Equal access by men and women to efforts to build skills, improve leadership capability, and prevent gender-based violence	15
Increased transparency of trade chains and market access for ASM miners	12

livelihood activities. About 16 percent of funding supported environmental activities, such as prevention of encroachment in protected areas and mercury reduction. (Table 1 shows the distribution of activities supported. Table 2 shows the number of countries that implemented activities.)

**Support provided to partner organizations allowed artisanal and small-scale miners to continue working during the pandemic, improve a range of organizational and site practices, and build long-term resilience to shocks through a variety of activities, including the following:**

- » Health awareness initiatives, including sensitization and awareness-raising campaigns on COVID-19 and preventive measures
- » Training on women's rights and the prevention of gender-based violence
- » Awareness campaigns and related services to prevent the escalation of violence against vulnerable groups, including women, in mining areas
- » Training on alternative livelihoods, through reskilling



- » The building of networks and associations through which miners exchange information, establish trade networks, and help women miners mitigate the impacts of the COVID crisis (including on job loss, income reduction, childcare, and education)
- » The strengthening of institutional capacity, through education to support business and organizational development
- » Support to local cooperatives to prevent them from accumulating debt
- » Training on environmental management and ways to avoid exposure to mercury
- » Short-term technical assistance to help miners access supply chains
- » Support for formalization
- » Support for digital platforms that allow miners to access markets electronically so that the miners can maintain income streams when lockdowns and restrictions make it difficult for them to sell their minerals
- » Training in leadership, peace, and conflict resolution



▲ Basic training on rough diamond grading and valuation in Liberia. Photo by Empowerment Works, Inc. and Diamonds for Peace

**The program engaged in both short- and medium-term activities in four domains—health, economic, social, and environmental—providing funding in three rounds.**

Short-term relief (activities that lasted three to six months) responded to the immediate health and economic impacts of the crisis. Thirty-eight interventions received this kind of support. Ten received medium-term (support that lasted more than a year) relief, which helped ASM communities build resilience for the future. Smaller allocations of funding were made available for research.





# AT A GLANCE

## EMERGENCY RESPONSE FOR ARTISANAL AND SMALL-SCALE MINING COMMUNITIES IMPACTED BY COVID-19

**16 COUNTRIES** that received capacity-building support to improve business practices and strengthen understanding of finance: *Afghanistan, Bolivia, Brazil, Burkina Faso, Democratic Republic of Congo, Ghana, Guinea, India, Indonesia, Kenya, Malawi, Mali, Mongolia, Tanzania, Uganda, Zambia*



### 48 AWARDS

38 for short-term interventions and 10 for medium-term interventions

### 1 GLOBAL NETWORK PARTICIPATING

Delve Exchange, which includes 51 non-OECD countries and 816 participants

### 22 COUNTRIES PARTICIPATING FROM 4 REGIONS

East Asia and Pacific, Latin America and the Caribbean, South Asia, and Sub-Saharan Africa

### 25,844 MEN & 25,456 WOMEN

trained in COVID-19 protocols, mining-related diseases other than COVID-19, and occupational health and safety

### 1 MILLION+ PEOPLE

reached by COVID-19 awareness campaigns

### 13 ACTIVITIES

working to reduce gender-based violence

### 144 WOMEN-OWNED ORGANIZATIONS

supported

### 17 ACTIVITIES

working to promote alternative/complementary livelihoods



# PROGRAM APPROACH

The long-term objective of EGPS was to increase formalization, including by improving social and environmental performance in ASM communities. To deal with the immediate effects of the COVID pandemic, EGPS focused on short- and medium-term activities.

## SUPPORTING SHORT- AND MEDIUM-TERM ACTIVITIES

Financing of the first round of activities began at the end of 2020. This funding went to 22 organizations for short-term activities. The emphasis was on COVID-19 awareness prevention and efforts to mitigate pandemic impacts. Recipients spanned 18 countries, including 12 in Africa and 2 each in East Asia and Pacific, South Asia, and Latin America and the Caribbean. Sixteen recipients received top-ups to expand or scale up their initial activities.

An artisanal mining cooperative in the Democratic Republic of Congo relies on non-contact thermometers to identify potential COVID-19 cases among their workforce. Photo by Stephanie Shumsky/Pact Inc.



In the second and third rounds, which took place between February 2021 and December 2022, the focus moved to medium-term activities. These interventions supported (a) one global networking effort covering Sub-Saharan Africa, East Asia and Pacific, South Asia, and Latin America and the Caribbean (the Delve Exchange, described later in this report), and (b) seven awards to partners in Sub-Saharan Africa, Latin America and the Caribbean, and Asia.

Activities included research into responsible sourcing initiatives and their adaptation during COVID; capacity building to mining cooperatives and associations to build back their activities in more socially and environmentally responsible ways; and efforts to bring digital and technological innovations to certain supply chain practices to improve benefits to miners.

Training of community-level frontline health care providers. Photo by SRADHA



## FOCUSING ON HEALTH, ECONOMIC EMPOWERMENT, SOCIAL PROTECTION, AND THE ENVIRONMENT

The World Bank and its partners supported activities in four areas: health, economic empowerment, social protection, and the environment. Across all areas, it supported gender equality.

### HEALTH ACTIVITIES

The weak underlying health characteristic of ASM communities left miners highly vulnerable to COVID-19. To help contain the spread of the pandemic in mining communities, EGPS supported the rollout of COVID-19 public awareness campaigns through radio, TV, and social media that reached more than 1 million people. Interventions supported by EGPS trained 25,844 men and 25,456 women, including government officials, in 22 countries in COVID-19 protocols, mining-related diseases other than COVID-19, and occupational health and safety. Activities also improved access to clean water, sanitation stations, and health information.



# SUCCESS STORY



Health Focus conducting COVID-19 awareness and prevention training in the Democratic Republic of Congo. Photo by Health Focus

## IMPROVING OCCUPATIONAL HEALTH AND SAFETY IN THE DEMOCRATIC REPUBLIC OF CONGO

In the Democratic Republic of Congo, Health Focus, in partnership with Synergy Global Consulting, trained 263 “change agents” and launched an information campaign on 35 radio stations intended to reach about 45,000 miners. To promote a better integrated and more comprehensive approach to addressing ASM occupational health and safety issues, Health Focus brought together government officials, donors, and representatives of development agencies, development partners, nongovernmental organizations, and civil society organizations from the health and ASM sectors. Convening these parties resulted in a call to action by government and other partners that support the health agenda for ASM.



All partner organizations sensitized beneficiaries to COVID-19, informing miners and their households about the signs, symptoms, and transmission avenues of COVID-19 and ways to prevent infection, through social distancing, masking, and handwashing. They conducted awareness sessions, community dialogues, and/or trainings and workshop (15 interventions) and supported media campaigns, using radio and TV, social media, and flyers (9 interventions).



▲ Training of community-level frontline health care providers in India. Photo by SRADHA

Activities had enormous success informing residents about COVID. **“Before the project, we were skeptical about even the existence of COVID. As a result, we didn’t respect the barrier measures that were in place,”** noted Estelle Bassolé, an artisanal miner in Burkina Faso. **“Today, we are convinced that this thing is a reality, and we do our best to prevent propagation.”**

In some remote areas, unawareness, rather than skepticism, was the problem. Completely cut off from the outside world, people in one village in India had never heard of COVID before the arrival of masked staff from SRADHA, a nonprofit organization in India working to create alternative and sustainable livelihood opportunities for ASM communities. This intervention promoted the concept of “super mums,” who were encouraged to communicate messages about preventing COVID-19—through handwashing, social distancing, and the use of face masks—to their children, other adults, and pregnant and lactating women.



## ECONOMIC ACTIVITIES

**The pandemic severely curtailed—and in some cases shut down—mineral trade chains, restricting the ability of miners to work at mine sites and sell their products at the desired price.** For this reason, about half of all interventions sought to improve economic opportunities for miners. Some promoted alternative livelihoods; others trained workers to improve their mining-related skills, in order to increase their earnings.

The largest number of economic interventions focused on alternative livelihoods and support for cooperative associations working on formalization of the sector (17 and 16 interventions respectively). Other interventions focused on access to markets (7 interventions), laws and regulations supporting formalization (6 interventions), and due diligence, risk mitigation, and certification (5 interventions).

To increase resilience against future economic and/or health-related shocks, EGPS conducted baseline research, engaged with stakeholders, and built the capacity to support efforts by ASM cooperatives to mitigate debt escalation and other financial impacts. It supported efforts to make trade chains more transparent and provide market access for ASM miners in 20 countries. It also helped miners start and expand complementary

livelihood activities. In 14 countries, it helped increase access to finance and other forms of support to small mining cooperatives and entities. In eight countries, it worked to increase access to markets and prevent an increase in smuggling, illicit financial flows, and financing of organized crime.





ASM women receive training in making hand sanitizers and liquid soap. Nigeria, 2021. Photo by Women's Right to Education Programme (WREP)

# SUCCESS STORIES

## PREVENTING MINING HOUSEHOLDS FROM DESTITUTION IN NIGERIA

For many miners who were unable to work because of the pandemic, the activities funded by EGPS were life changing. **“I thought I was going to lose my children to death from hunger during the lockdown. I was tired, discouraged, and felt like a failure,”** said Verashe Azenda, a 38-year-old widow with three young children. She was one of many women in Nigeria trained to make and sell liquid soap, hand sanitizer, and reusable sanitary pads.

**“This activity literally gave me my life back,”** Azenda noted.



Editha Samree presents her stones at the Moyo Gems Market Day, Kenya, 2022. Photo by The World Bank

## BRINGING ARTISANAL MINERS AND BUYERS TOGETHER IN KENYA

On May 6, 2016, Kenya passed a new mining law that recognized ASM operations, stipulating clear processes for establishing safe operations and state support for miners. In a clear departure from the previous law, which prohibited ASM and restricted women's involvement in the trade, the new regulation paved the way for groups like Editha Samree's Taita Women Mining Group to participate fully in Kenya's mining sector.

Samree is a seasoned miner and community organizer who champions the rights and inclusion of women miners in her capacity as chairperson of the Taita Taveta Women Mining Group. She was selected to participate in the

World Bank-funded Moyo Gems Market Day, when selected miners learned how to evaluate rough stones, engage with vetted buyers, and document sales on a blockchain platform. Buyers explained what factors influence their purchases—advice that Samree says is not easy to come by in regular sales processes.

**“Today I'm happy because we are selling one-on-one, and at least people have come to the ground and they know where the mine is,”** said Samree. **“They are advising us.”**



**CLICK TO WATCH THE VIDEO**



In India, the Centre for Indian Bamboo Resource & Technology (CIBART) trained artisanal miners to make bamboo products at home, where they faced less exposure to COVID-19. It now plans to develop a work-from-home system in which all members of ASM households can earn additional—and, eventually, an alternative source of—income. This work-from-home activity could eventually be part of a sustainable natural resource-based production system.

In Odisha, India, SRADHA trained women to process and pack dry fish as an alternative livelihood option when pandemic restrictions prevented miners from working in the mines. Staff linked beneficiaries to a local supply chain that procured what they produced at their doorsteps. The activity was initially planned as a substitute for mining during the pandemic, but many participants continued drying and selling fish to supplement their incomes after the mines reopened.

In Liberia, Empowerment Works, Inc., and Diamonds for Peace provided basic training on grading and valuing rough diamonds. This effort helped narrow the information asymmetries in the supply chain that allow mining companies to exploit miners by paying much less for their diamonds than they are worth.

Many interventions provided training in leadership, organization management, financial literacy skills, access to finance, entrepreneurship, business planning, networking, and the formation and importance of business associations. The Association of Women in Energy and Extractives in Kenya provided women with financial literacy training.

**“One of the things I learned from the trainings that I implemented immediately was to open an alternative business of a meat shop, to have a secondary source of income aside from my mining and dealing business,”** wrote one miner.

**“I am also working on expanding my participation in the gemstone value chain by investing in training on value addition. I can now make necklaces, earrings, and bracelets from gemstones and beads.”**



## SOCIAL PROTECTION ACTIVITIES

The emergency response window provided social support to miners and their households, including assistance for miners who had to return to their home communities because of mine closures. It supported the collection of gender-sensitive data and research to better understand the impact of COVID-19 and tackle the most pressing gender issues at the mines. Many partners focused on policy advocacy (14 interventions), women’s rights and efforts to combat gender-based violence (13 interventions), occupational health and safety and other health issues (12 interventions), networks and knowledge sharing (11 interventions), and research (10 interventions). Others focused on leadership, peace, and conflict resolution (4 interventions); digital literacy (4 interventions); and child labor (2 interventions).

In Mozambique, the Network for Youth and Adult Education Advocacy (RAJANO) implemented community dialogues on peace, security, and conflict resolution. It trained “peace hub” members in conflict prevention and resolution. The training provided women with new skills in mediation and negotiation to help them raise their concerns, propose solutions, and contribute to peace and security dialogue in the region.

Training session of activists on gender-based violence, women’s rights, peace and conflict resolution in Mozambique. Photo by RAJANO





## ENVIRONMENTAL ACTIVITIES

Across four regions—East Asia and Pacific, Latin America and the Caribbean, South Asia, and Sub-Saharan Africa—EGPS financed research and capacity-building efforts on alternatives to mercury use in mining, waste management, and coexistence models to promote best practices in responsible mining. Six partners worked on waste disposal and environmental management, four on fighting mercury exposure, and two on research related to the use of mercury in artisanal and small-scale gold mining, its impact, and alternatives for reducing its use.

In Afghanistan, the Hatam & Nouri Legal Consulting Services Company trained women on Afghan environmental law. In India, CIBART encouraged mine owners to raise bamboo plantations on degraded land after mining, per their commitment to the government to re-grass mined lands.

In northern Ghana, the Social Investment Consultancy and Women in Mining Ghana increased the environmental and health awareness of women miners by educating them about responsible mining, innovative mercury-free techniques, and the adverse health impacts of mercury on miners. It trained women in improved mining techniques, such as adjusting the orientation of their sluice boards and changing their sluice mats in order to extract more gold.

In Mozambique, RAJANO trained 150 men and women in environmental protection. Two associations it helped register as legal entities planned to plant trees and mobilize miners to do so in areas where mining had destroyed trees and rivers. The partners intend to continue to provide trainings on protecting the environment (rivers, water sources, the forest, animals) during mining activities. In Uganda, the Action Coalition on Climate Change trained 100 women stone quarry miners on waste disposal and tailings storage, including environmental management.

In Brazil, the Centre for Small-Scale Responsible Mining of the Department of Mining Engineering of the University of São Paulo (USIP) developed a model that will allow ASM cooperatives to establish mutually beneficial partnerships with conventional gold-mining companies, promote clean technology, and improve mine standards on ASM sites.



[CLICK TO WATCH THE VIDEO](#)

In Indonesia, Women in Mining and Energy assessed the impact of ASM operations on the local environment and women's health and collaborated with district health agencies to conduct an awareness-raising campaign on the dangers of mercury.





# SUCCESS STORY



Rokini is washing rocks at the Pudu Jaya mining site in Central Kalimantan, Indonesia. Photo by Franata, Yayasan Tambuhak Sinta, 2021.

## REDUCING THE USE OF MERCURY IN INDONESIA

**Yayasan Tambuhak Sinta and Women in Mining and Energy used Photovoice, a visual research methodology, to promote social change.**

Photovoice empowers communities by letting people document, reflect on, and communicate their concerns through powerful images. Using a participatory approach, the organizations trained participants to capture snapshots of their community through their own lens.

In one community, following the Photovoice activity and a subsequent health campaign initiative, a group of women formed a mercury-free gold-panning collective. They brought in a resource person to train them to refine gold by processing it directly, without using mercury. The women mixed the gold concentrate from panning with borax and belching salt and then burned it with a torch to rid it of impurities and other minerals. In addition to creating a hazard-free environment, this technology increased the price the panners received for their gold because gold jewelry social entrepreneurs are willing to pay more for gold that has been processed without mercury.

Use of mercury is widespread in the ASM gold sector because it is the simplest and fastest technology available for extracting gold. A study conducted for the Basel Convention Regional Centre for South-East Asia (BCRC-SEA) in 2018 estimated that 346 tons of mercury are released into the environment in Indonesia every year. This release is a problem because mercury can cause headaches, blurry vision, and damage to the lungs, brain, and nervous system. Large amounts of or long-term exposure to mercury can lead to death.



## IMPROVING GENDER EQUALITY

Almost all interventions included a gender component. Gender-related activities focused on three main areas (described below), with many addressing multiple areas. In Uganda, for example, the Collaborative Efforts to Alleviate Social Problems (CEASOP) trained women on gender equality and prevention of gender-based violence, women's property rights, and conflict resolution and negotiation, and sponsored a mentorship program for women miners. Partners supported 144 women-owned organizations and launched 13 interventions to reduce gender-based violence.



### Building Women's Resilience, Strengthening Their Capacity, and Increasing Their Empowerment

To protect women from COVID, partner organizations trained them on the use of protective equipment and the adoption of occupational health and safety best practices. To strengthen women's capacity, the organizations provided training on business skills, financial literacy, and technical aspects of mining. To increase women's empowerment, they informed them of relevant laws and sensitized them to their rights; sought to improve their working conditions; and created platforms through which they can publicize the challenges they face, potentially bringing their needs to the attention of leaders at all levels of government as well as international institutions.

**In Bolivia**, Cumbre del Sajama worked to increase the knowledge and confidence of women miners. **In Burkina Faso**, the Artisanal Gold Council helped close gender gaps by providing training and capacity building on topics such as occupational health and safety standards, entrepreneurship, formalization, and international standards for a responsible gold supply chain.

◀ Photo by Responsible Jewelry Transformative







# SUCCESS STORY

Florence Okello quarries stones in Ngetta Hill, Lira, Uganda.  
Photo by Patricia Ndagano, World Bank

## CHANGING THE VIEWS OF WOMEN AND MEN ABOUT WOMEN'S PROPERTY RIGHTS IN UGANDA

Florence Okello, a stone quarrier from Lira City East, Uganda, attended the training on women's property rights and conflict resolution conducted by CEASOP. **"Before the training, we did not know that we had rights,"** Okello said. **"We would earn some income and then our husbands would take it over and we didn't have a say. Since my husband and I attended the training on women's property rights and conflict resolution, we both have a different view about how women should relate to their husbands, how husbands should relate to their wives, how both spouses should relate to their kids at home, and how to resolve conflicts when they rise in our house."**

**"My husband, who participated in all the training sessions—more than I did—had the opportunity to listen and learn about the limit of his rights.** For example, now he knows that a woman has the right to decide with her husband what they have to do with the husband's income and vice versa. This has changed our everyday lives. **Now my husband behaves differently.** We sit down together, plan together, and use our resources better, which also reduces conflicts in our house. This is very different from before the trainings, when traditionally men did not consult their wives, because women did not have any say. Men could even sell a piece of land without consulting their wives. **Now this has changed. If a woman has not consented to selling a property or land, it cannot be sold."**





▲ Female quarry worker in Ngetta Hill, Lira, Uganda.  
Photo by Patricia Ndagano, World Bank

### Increasing Understanding of and Strengthening Measures to Prevent Gender-Based Discrimination and Violence

Projects raised awareness in both men and women about the importance of nonviolent approaches, such as dialogue, within households. In many villages, the results were extraordinary. **“Before the project, violence, including domestic violence, was considered normal,”** said Atia Osaibo Cululo Canjade, a provincial government official in Mozambique. **“After the activists were taken for training, things started to change.”**

### Supporting Women Mining Associations and Helping Women Trade

Several activities helped legally establish or strengthen associations for women miners. **In Afghanistan**, the Hatam & Nouri Legal Consulting Services Company supported the establishment of a national Women in Mining chapter to promote and support the participation of women in the extractives industry. **In Mozambique**, RAJANO supported the legal registration of seven associations and built their capacity to negotiate with regulatory authorities, conduct business, and trade formally.

Partners established networks linking women miners with buyers to increase the prices they receive for their minerals. They helped women miners facilitate trade by piloting digital platforms for trading minerals and increased the involvement of women along the entire value chain. **In Sub-Saharan Africa**, the Association of Women in Mining in Africa (AWIMA) sought to build the capacities of local associations to design jewelry for sale internationally.



Artisanal gemstones mined by ASM women. ▶  
Photo by Responsible Jewelry Transformative





# SUCCESS STORY



Workshop with ASM workers organized by Cumbre del Sajama in Riberalta, Bolivia. Photo by Cumbre del Sajama

## MENTORING WOMEN COMMUNITY LEADERS AS AGENTS OF FORMALIZATION IN BOLIVIA

Cumbre del Sajama, a Bolivian nongovernmental organization, works to improve conditions for people working in extractive industries. In 2021, it implemented activities to increase the visibility of women in ASM and improve the working conditions of women miners. Through training and training materials—including booklets, primers, videos, and other materials—it provided women with the knowledge and skills they needed to organize, defend their rights, and participate in the operations and administration of their organizations.

These activities increased women’s awareness of the hazards they face—and what they need to do to protect themselves. “These workshops opened my eyes to the misuse we were making of mercury,” noted Anabella Silva Chino de Cabezas, a miner from Tipuani. “Almost all of us ... separated the gold from the mercury in the kitchen, where we prepared food for our families, using a spoon, without wearing gloves, and without using mouth and eye protection. I think that many of us became ill because we inhaled that vapor. At these workshops, we learned that we have to take care of ourselves ... and that the gold and mercury separation should be done in open air while using protective measures.”

The workshops also built women’s confidence. **“Before the workshops, I could not speak in public; I was very closed. I did not speak as easily and fluently as I do now,”** said Nataly Priscila Meret, a miner from San Ramón. **“These workshops helped me to open up, to be more open in what one thinks, to say what one thinks.”**

**“With this project I learned about the rights of women—rights that are in the political constitution of the state and that give us the opportunity to participate in the decisions of our families, our community, and our municipality,”** noted Lucila Forra Avillcata, a miner from Tipuani.





Colombian emerald rough / ©Maison Plat

## LINKING MINERS THROUGH THE DELVE EXCHANGE

The Delve Exchange is a global, online knowledge exchange network by artisanal and small-scale miners for artisanal and small-scale miners. Launched in June 2021, against the backdrop of the COVID-19 pandemic, it seeks to (a) increase the exchange of knowledge and best practice and (b) empower the global voice and increase the visibility of ASM and quarry sector associations.

The exchange connects miners and quarry workers through monthly regional forums and ongoing exchange groups. By the end of September 2022, 2,060 people were participating in 78 regional forums in 68 countries. Important features include the participation of women—as participants, leaders, and presenters—and the creation of a safe place in which participants can share information and discuss major concerns and training topics, such as mercury reduction.

The exchange has created two categories of knowledge products: (a) practice stories; stories of implementation, and challenge stories, and (b) Delve Exchange forums. In practice stories, members share knowledge of or experience with a topic or practice. In stories of implementation, members describe how they implemented something they learned from the network. In challenge stories, members describe a problem or a challenge their community or site is facing about which they seek advice from other members of their regional network. Stories are submitted in video or audio format using WhatsApp or as

short documents (no more than two pages). Coordinators encourage members to share a photo of their work site every Friday, with a brief description.

The Delve Exchange forums are regular, virtual knowledge-sharing meetings facilitated by the coordinator of each region and held on Zoom. Each forum concentrates on a different topic of interest to the network. The forums have been a particularly successful component of the Delve Exchange, with coordinators relishing their growing sense of their convening power and the chance to confidently represent the concerns of their regions on an online platform.

The response to the Delve Exchange has been overwhelmingly positive. **“There is no better place for an artisanal or small-scale miner to be,”** notes Blessing Hungwe, the Delve Exchange coordinator for anglophone Africa. **“This is for us by us—a highway for empowering artisanal and small miners to drive the agenda on issues that affect us.”**



▲ Silicosis widows in Panna District (India) attending a Delve Exchange forum on alternative livelihoods for South and Central Asia in December 2022. Photo by Sameena Yousuf



# RESULTS OF THE 2022 FOLLOW-UP SURVEY

**In July 2022, as the two-year emergency response window was nearing its end, EGPS conducted a second global survey to understand what may have changed since the beginning of the pandemic.**

The follow-up survey expanded upon the rapid response assessment conducted in 2020 by engaging with 33 partner organizations and collecting data in 31 countries.

Data collection partners surveyed mine-level stakeholders through a combination of phone and in-person interviews. A short, standardized survey focused on the same areas of inquiry as the 2020 survey. Working with prior survey partners from 2020 as well as new partners in 2022, an attempt was made to cover the same geographies and communities that were previously surveyed. Repeat partners resurveyed 20 out of 31 countries from the 2020 sample.

The cross-sectional study used primarily a convenience sampling approach, polling 3,409 people between July 17, 2022, and November 1, 2022. Given the small size of the sample and the sampling method, the survey results cannot be considered representative of national contexts.

The results do provide a snapshot of perceptions and experiences of ASM communities two years after the onset of the pandemic, however, and suggest areas for further research and response interventions.

COVID-19 follow-up survey being conducted in Mozambique. Photo by RAJANO



## Knowledge of COVID

Awareness of COVID-19 and how to protect against the virus was high but had not changed much since the first survey. The overwhelming majority of people in ASM communities (83 percent) reported feeling informed about COVID and how to protect themselves from the virus (47 percent somewhat informed and 36 percent very informed). These results were not very different from the results of the July 2020 survey, in which 84 percent of respondents felt informed about COVID (40 percent somewhat informed and 44 percent very informed). Ninety-five percent of respondents in the second survey indicated having received messages regarding what COVID is and how to protect against it.

In most countries, most miners reported not having had COVID. More than three-quarters of respondents (78 percent) reported that they had not had COVID, 10 percent reported that they had tested positive, and 8 percent reported that they suspect they had been infected but had not tested. Outlier countries—countries in which the majority of respondents indicated that they had had or suspected they had had COVID—include Mongolia (89 percent), Peru (77 percent), Bolivia (74 percent), Myanmar (60 percent), and Brazil (58 percent).

Among survey respondents who had had or suspected they had had COVID, 78 percent sought treatment. Government health facilities were the most common location for seeking treatment (three times more prevalent than private health facilities and traditional medicine providers).

Miners reported taking preventative measures while working at mines sites. Washing hands and wearing a face mask were the most frequently cited prevention measures, as they were in the 2020 survey. Only 9 percent of global respondents indicated having taken no measure to prevent COVID. This figure is about half that in the 2020 survey (17 percent). There were two country outliers, Myanmar (where 67 percent of respondents reported taking no preventative measures) and Ghana (39 percent).

**Across locations, 63 percent of respondents reported being vaccinated. In 12 countries, more than 90 percent of respondents reported having been vaccinated. Country outliers include Mali (where just 1 percent of respondents reported being vaccinated) and the Democratic Republic of Congo (17 percent). In Mali, respondents cited lack of information and trust in the vaccine as the reason for not getting vaccinated. In the Democratic Republic of Congo, 64 percent of respondents indicated not having had the opportunity to get vaccinated.**



### Access to Work by Women and Men

More than half of respondents (57 percent) reported that COVID had affected their ability to mine. Half of respondents who reported changes cited government restrictions on mining activity as the cause. Just five countries reported gender-related differences of more than 20 percent in the perceptions of changes in mining operations. Women were more likely than men to report changes in mining operations in Ethiopia (a difference of 40 percent), Niger (27 percent), Liberia (22 percent), and the Democratic Republic of Congo (22 percent). In Guinea, men were 20 percent more likely to report changes.

### Confidence in the Health Care System

Confidence regarding access to the health care system in the event of COVID infection rose. In the 2020 survey, 49 percent of respondents did not feel they had adequate access to health care if they got sick. In the 2022 survey, this figure fell to 35 percent. The change likely reflects the increase in information on the severity and nature of COVID illness, which may have reduced people's sense of the need for health care treatment, and improvements in public health services.

### Service Delivery

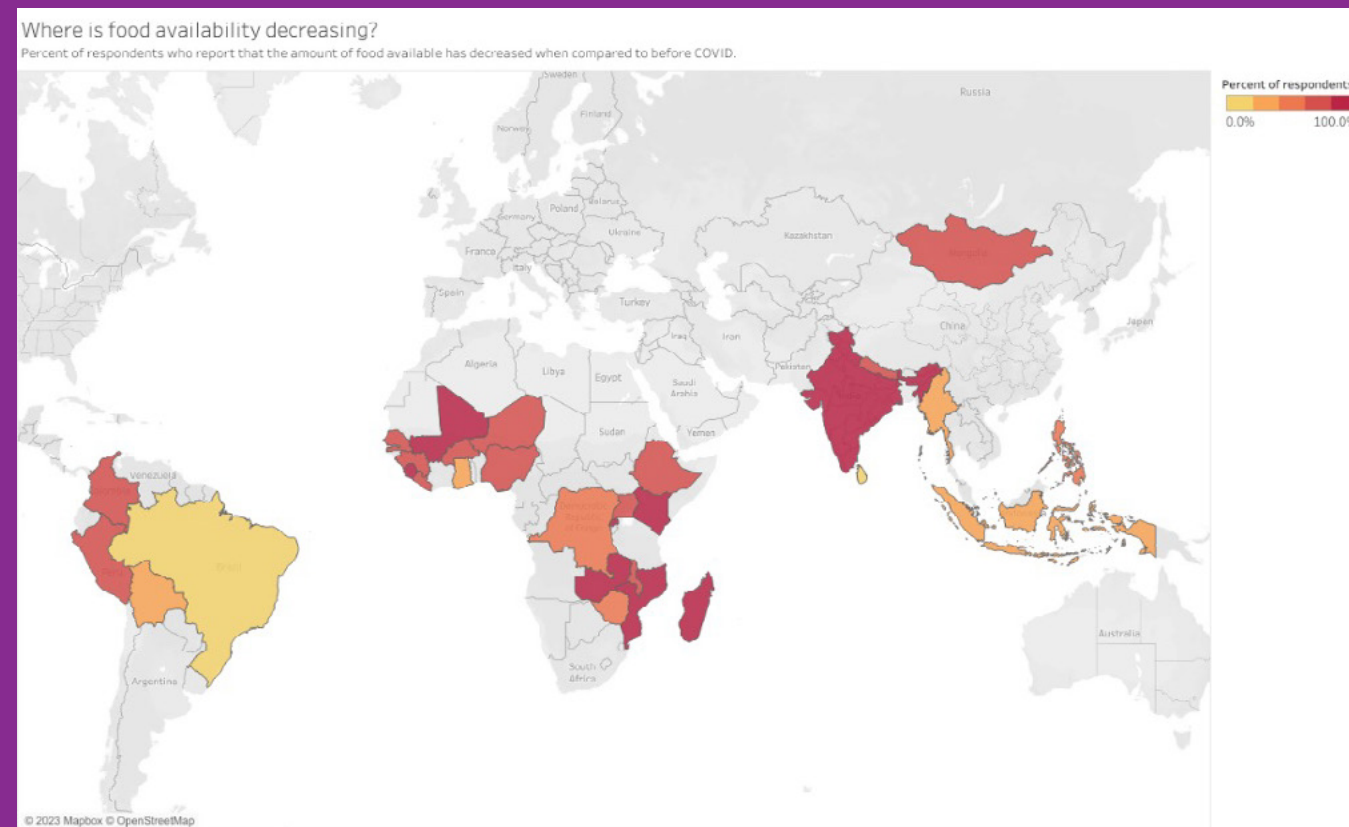
About 45 percent of respondents received services from the government to help them weather the impact of the pandemic and government measures to contain it—up from less than a quarter in 2020. Services included medical supplies (63 percent), information on COVID (53 percent), food (36 percent), and cash (24 percent).

### Economic Disruption

The vast majority of respondents (88 percent) viewed COVID as a threat to their finances. In 15 countries, the figure exceeded 95 percent. Ghana, where only 32 percent of respondents held this view, was the only country in which a majority did not view the virus as a threat to their households' economic well-being. Three-quarters of respondents indicated that their household income was lower than it was before COVID; in 11 countries (Guinea, India, Kenya, Madagascar, Mali, Mongolia, Mozambique, Nepal, Niger, Sierra Leone, and Zambia), more than 90 percent of respondents reported lower income.

### Food Security

About two-thirds of respondents (65 percent) stated that they had less to eat than they did before the pandemic. In 11 African countries and India, more than 75 percent of respondents reported a decrease in available food.



### Recovery Perspectives

Miners want financing to help them recover from the pandemic. Access to financing to support operations was the top choice, selected by 69 percent of respondents presented with a range of options that included access to tools and equipment, personal protective gear, education, and support with licensing. This figure is up from 46 percent in the first survey, underscoring the economic challenge of COVID for miners.



▲ Artisanal gold miner in Sudan. Photo by Dylan McFarlane, Pact Inc.



# IMPLEMENTATION CHALLENGES AND LESSONS LEARNED

**The pandemic made it difficult to implement certain activities. Organizations shared key implementation challenges, including difficulties contracting individuals in local organizations;** doubts about the existence of COVID-19 by some miners in Afghanistan, Burkina Faso, Colombia, the Democratic Republic of Congo, India, and Nigeria, which led to slow uptake of preventative education in some countries; and lockdowns and travel restrictions in Afghanistan, Brazil, Colombia, Côte d'Ivoire, Ghana, India, Indonesia, Kenya, Mongolia, Mozambique, and Uganda. In Burkina Faso, Ghana, Mozambique, Nigeria, and Uganda, organizations implementing activities faced other external challenges, including local elections, regional insecurity, conflict at mining sites, and/or challenges from local response to issues related to women's rights.

In Brazil, Ghana, and Mongolia, remote tools and activities were able to address these constraints. Many organizations spoke of how the pandemic allowed them to use the opportunity to teach miners new skills—particularly the use of digital technology.

Many organizations had never worked with the World Bank. EGPS dedicated considerable time to capacity building of local organizations through support to monitoring and evaluation (M&E) design, quality review of reports and activities, site monitoring visits, weekly calls to unblock implementation challenges, and peer-to-peer learning groups established to allow cross-pollination of the efforts of organizations on common themes: (a) gender and SGBV in particular; (b) health messaging; and (c) social protection. It is anticipated that with the experience gained by implementing EGPS emergency response

activities, some local organizations will be in a better position now to apply for other types of international assistance, as they now have a proven track record of performance with the World Bank.

## TOP SIX LESSONS FROM THE COVID-19 EMERGENCY RESPONSE

### 1. Employ evidence-based approach

EGPS together with 17 partner institutions conducted research into how COVID-19 had affected ASM communities in 22 countries in Africa, Asia, Latin America, and the Caribbean. This early assessment allowed definition of the scope and reach of the emergency response project.

### 2. Local organizations are key to success

Given the restrictions brought about by the COVID-19 pandemic, EGPS worked with local organizations to implement activities, which was instrumental in reaching ASM communities during the crisis.

### 3. Target gender gaps

Gender is an inseparable lens in the discourse around ASM. A gender-sensitive project design led to gender-focused activities for women and men that exceeded the project's gender-related targets.

### 4. Technology-based M&E systems are critical in emergency settings

The emergency response highlighted the importance of technology for M&E in emergency contexts. When COVID-19 related disruptions in travel and field supervision missions constrained direct access to areas of operation, technologies like mobile phones, messaging channels, and virtual

platforms helped track data and implementation progress of projects. By providing support to improve M&E of operations in remote and hard to reach areas, the emergency response helped significantly strengthen the preparedness and adaptability of organizations working with miners.

### 5. Customized M&E improves activity outcomes

The project developed a customized M&E framework and approach. During weekly calls, partner organizations received guidance on overcoming implementation challenges and improving outcomes. The project also facilitated monthly peer-to-peer online learning sessions via Microsoft Teams and WhatsApp.

### 6. Strengthen networks and associations

Knowledge exchange networks and associations are an effective way of disseminating information to benefit miners and shape the ASM sector sustainably and responsibly. The project supported the development of an online network of ASM associations and helped build local networks that contributed to the promotion of improved mining practices, provided access to knowledge and resources, advocated on behalf of their members on policy issues, and offered a social safety net during crisis.



# LOOKING FORWARD

**Based on the results from the emergency response window and the findings from the second data collection exercise, the World Bank and EGPS will scale up support to ASM. Support will focus on priorities emerging from the pandemic and recovery needs, including the following:**

- » Leading and convening international and regional partners around a common understanding of support to the ASM sector
- » Bringing awareness and support to national and subnational authorities concerned with mining on priorities for ASM development
- » Establishing a variety of financial instruments to meet miners' growing demand for support to their operations
- » Working closely with mine associations and other networks such as the Delve Exchange to model best practice in occupational health and safety; environmental, social, and governance; and mine site practices
- » Continuing to support concerted efforts to reduce all forms of gender discrimination and improve women's standing in the sector
- » Ramping up support to livelihood diversification, in order to address persistent food insecurity, resulting in large part from inflation
- » Scaling new forms of access to markets to increase miners' earnings and help reduce structural gender gaps along value chains
- » Reinforcing security of tenure and other traditional formalization measures



Roseline Nyambu, artisanal miner in Kenya, presents her mined gemstones. Photo by the World Bank.



