

SGP The GEF
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Programme



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ARTISANAL AND SMALL SCALE GOLD MINING AND MERCURY MANAGEMENT

INNOVATION PROGRAMME



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CITATION

United Nations Development Programme. 2019. Artisanal and Small Scale Gold Mining and Mercury Management Innovation Programme. UNDP, New York.

PUBLISHED

Small Grants Programme
Sustainable Development Cluster
Bureau for Policy and Programme Support
United Nations Development Programme
304 East 45th Street, 9th Floor, New York, NY 10017
www.sgp.undp.org
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INTRODUCTION

Anthropogenic emissions of mercury to the atmosphere in 2015 were estimated at 2,220 tonnes, approximately 20 percent higher than 2010, according to UN Environment's Global Mercury Assessment 2018. The report also estimated that almost 38 percent of the global total of emissions was associated with artisanal and small-scale gold mining (ASGM), and that the sector was the major contributor to the emissions from South America and Sub-Saharan Africa.

ASGM INNOVATION PROGRAMME

To support the implementation of the Minamata Convention at community level, in line with the strategies of the Global Environment Facility (GEF) and the United Nations Development Programme (UNDP) on chemicals and waste management, the GEF Small Grants Programme (SGP) seeks to pilot and test innovative community-based mercury reduction and management practices. These specifically address the prevention, reduction, and elimination of mercury use and contamination, and promotion of safe handling of mercury-containing products. Since 2011, SGP has supported 66 mercury management projects with a total funding of more than \$2 million.

In July 2018, SGP launched an innovation programme on ASGM to address mercury contamination and its threat to the ecosystem and the health of poor and vulnerable populations. SGP has combined its country-driven approach with proactive global support on capacity development, knowledge sharing, and networking within SGP and beyond with partners in the implementation of this programme. Based on a baseline analysis, selected SGP country programmes have developed ASGM strategies to implement this programme focusing on the following activities:

- Demonstration of innovative technologies to reduce and eliminate mercury use in ASGM
- Alternative livelihoods to reduce unsustainable and harmful mining practices
- Raising awareness, knowledge management and networking
- Policy development and influence

With a total funding of \$2 million to catalyze actions in this emerging area, this ASGM Innovation Program is implemented in the following seven countries, in close collaboration with the Global Opportunities for Long-term Development in Artisanal and Small Scale Mining Programme (GEF GOLD) and other partners including Zero Mercury Working Group. Other countries may join at a later stage.



BURKINA FASO

As of October 2019, five community-based projects have been approved and are currently under implementation. Activities include:

- Awareness raising about the use of chemicals in artisanal mining sites in the municipalities of Zabre and Zoaga
- Promotion of ecological practices in artisanal gold mining areas in Boulsa and Boala
- Combating the misuse of chemicals and the consequences of artisanal gold mining on the environment and society in the village of Kollo
- Combating the uncontrolled use of chemicals in gold panning in three villages of Kongoussi and the rehabilitation by gold miners of 117 hectares of degraded and abandoned land
- Artisanal gold mining without the use of chemicals such as mercury and cyanide





GHANA

In Ghana, six community projects are currently under implementation. The ongoing activities include:

- Capacity development to eliminate mercury from the process of small-scale gold mining
- Creation of networks and formalization of the regulation of small-scale mining activities licensed by the community within the Black Volta Basin
- Promotion of community mining and mercury-free technologies among artisanal and small-scale miners in Gbane and Dakoto, in the Talensi Nabdam District of the Upper East Region
- Establishment of a community group for sustainable artisanal and small-scale mining and restoration of degraded and mercury-polluted sites within the Nadowli/Kaleo District of the Upper West Region.
- Documentation of transparent governance and capacity development of artisanal and small-scale miners for sustainable small-scale mining industry
- Rehabilitation of mined-out areas and mercury contaminated areas in Gbane in the Talensi district

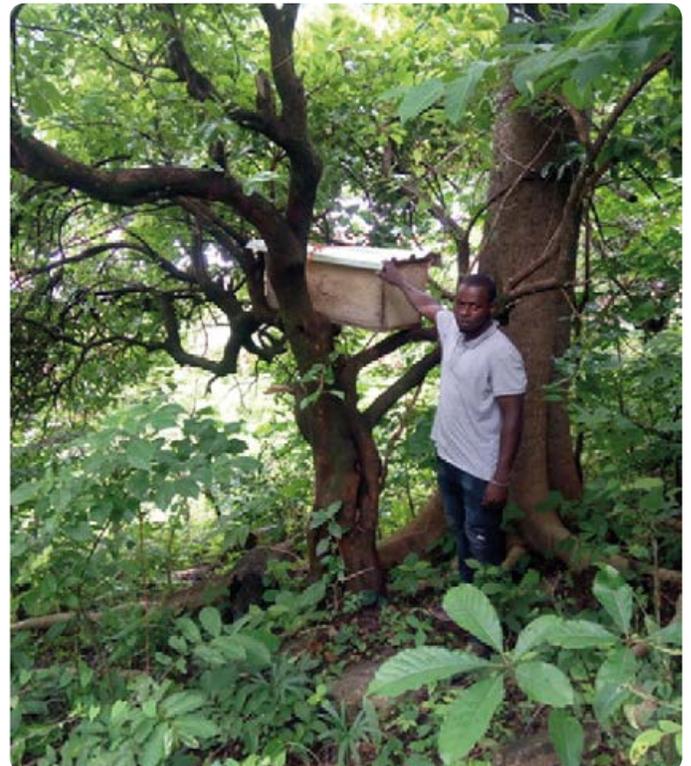




REPUBLIC OF GUINEA

In the Republic of Guinea, there are 12 micro community projects under implementation:

- Awareness-raising campaign on risks and dangers related to the use of mercury in artisanal gold mining, and the restoration of degraded sites in Doko, Siguiiri
- Education, information and restoration of degraded land resulting from the use of mercury in artisanal gold mining in Keignero, Kouroussa
- Improvement in the working conditions in the ASGM sector in Koumana, Kouroussa
- Capacity development for environmentally responsible mining
- Reduction in the negative impacts of the use of mercury in artisanal gold mining in Sangardo and Albadaria, Kissidougou
- Reduction of mercury-related risks in the ASGM sector in Kitinian, Siguiiri
- Support for youth and women gold miners in the fight against climate change
- Mitigate the negative impacts of artisanal gold mining in three villages in Kiniero, Kouroussa
- Capacity development for civil society organizations regarding mercury-related risks in Kankan, Dinguiraye, Kouroussa, Mandiana and Siguiiri
- Capacity development for different stakeholders on the misuse of mercury in artisanal and small-scale gold mining in Sanguiana, Kouroussa
- Restoration of sites degraded by artisanal goldmining in Gnafou, Mali (prefecture)
- Initiative for the restoration and management of mercury in sites through the artisanal mining of gold in Kinieran, Mandiana





MALI

In Mali, 15 community projects have been developed and implemented in Sankarani in the Sikasso area, Yanfolola circle and Baoulé in the Kayes area, Kita circle. Innovative practices include:

- Development of ancestral endogenous activities of gold panning without mercury at gold panning sites
- Training and information dissemination
- Installation of local monitoring committees (authorities / communities / populations)
- National network creation: Coalition for the Environment and Control of Chemicals in Mali (CEPMA)

As a result of advocacy by CEPMA, the government adopted a ministerial decree on May 15, 2019, suspending the gold mining activities by dredging in Mali. Also, advocacy activities are under way to install a ban on dredging and on the use of mercury in traditional gold panning.



MONGOLIA

In Mongolia, six projects are being implemented. Innovative activities include the introduction of mercury-free technologies, the development of alternative livelihoods for people working in the ASGM sector and awareness-raising activities, in particular:

- Providing assistance in organizing individual miners into legally organized groups
- Introducing mercury-free mining technology with provision of shaking tables and crushing devices
- Preparation of a series of how-to tools for assisting the development of alternative livelihoods such as planting green fodder for livestock, fruit farming, growing vegetables, sewing workshops for women, bee keeping, livestock breeding, or producing bio fertilizers
- Conducting two types of trainings for people working in the ASGM sector: one on alternative employment and one on small business proposal development, to assist candidates to apply for local development funds
- Suggestion of a wide range of alternative livelihood means for miners, providing them with devices such as sewing machines and simple flour product preparation equipment
- Awareness-raising activities on the dangers and toxicity of mercury, and the illegality of using it in ASGMs





UGANDA

In Uganda, there is one project under implementation that aims to eliminate the use of mercury in gold-mining communities of Busia district in Eastern Uganda. Additional projects are being identified and will be supported. The objectives of the project are:

- to increase participation of Busia small-scale gold miners in the elimination of mercury use in gold processing; and
- to establish a mercury-free gold processing demonstration center in Busia



ZIMBABWE

In Zimbabwe, the sector of small-scale, artisanal gold mining surpasses that of large-scale gold mining. Furthermore, 84 % of ASGM activities are unregistered as required by the national Mines and Minerals Act. This makes the issue of formalization in the country a priority, and efforts of SGP Zimbabwe focus on addressing the informality of the sector, as well as environmental degradation, poverty and violence, child labour and human rights abuses, gender barriers and the limited sustainability of returns in the sector.

SGP is working with the Ministry of Mines, School of Mines, Environmental Law Association, Zimbabwe Miners Federation, Pact Zimbabwe, Institute for Sustainability Africa, and the Environmental Management Agency to conduct proposal-development workshops and assist stakeholders with licensing and registration. The workshops are being held with 63 participants from different ASGM hotspots that include Shurugwi, Bubi, Shamva, Mberengwa, Zvishavane, Makaha and Mberengwa. SGP is also part of the Steering Committee for the Extractives sector under UNDP, which analyses legislative and policy gaps of ASGM in Zimbabwe.



CHALLENGES AND LESSONS LEARNED

The use of mercury in the ASGM sector has led to the environmental degradation of mining sites, and the pollution of water, air and soil. Mercury-based ASGM activities entail serious public health risks to both people working in the sector and the populations living adjacent to mining sites.

From the SGP projects currently under implementation in the countries described above, the following challenges and lessons learned can be observed:



FORMALIZATION OF THE ASGM SECTOR IS IMPORTANT.

Artisanal and small-scale gold mining businesses as well as individual miners are often unregistered and unlicensed, making miners more vulnerable to exploitation, inhibiting monitoring and enforcement of laws and regulations and making mining sites more prone to environmental degradation. ASGM projects in the Republic of Guinea address the lack of awareness of the legal and institutional status of certain chemicals, especially mercury, among local miners, and develop monitoring tools to fill data gaps on mercury use in the country. Also, one grantee partner in the country has reached an agreement with the National Association of Gold Miners to speed up the process of formalization.



AWARENESS-RAISING ACTIVITIES ARE KEY IN LEADING PEOPLE TO ABANDON ASGM.

Continuous awareness-raising activities that inform and educate small-scale gold miners about the public health risks and the environmental consequences of mercury use are often a first stepping stone for people to abandon gold mining with mercury and develop alternative sources of livelihoods.

In Mali, for example, gold panning is an ancestral activity, deeply engraved in local culture, which makes it difficult for people to abandon this activity. Poverty aggravates this situation. In this case sensitizing people about the effects of using mercury is a useful first step in supporting them to develop alternative livelihoods. In Mali, illiteracy is widespread among the mining population and sensitization messages should therefore be clear and simple. Successful awareness-raising efforts there were followed by a clear commitment and determination of the local population to reduce the use of chemicals in gold panning activities.

In the Republic of Guinea, awareness-raising efforts were helped by establishing a clear connection between the good management of natural resources and the consequent well-being of the population. After a successful sensitization campaign the mining population engaged in activities of soil protection, restoration of biodiversity and the promotion of protected areas. Also, the existence and participation of traditional organizations is important for successful awareness raising. In one project in the Republic of Guinea, the landowner, who is the heir of the village soil, as well as the central operator and authority of the gold panning sites both played essential roles in the project's success and awareness raising efforts.



ROLE OF LOCAL INNOVATION AND TECHNOLOGY.

The introduction of locally made innovative technology and devices can be effective to reduce or eliminate mercury from the gold mining process. These innovations are often developed locally, with assistance of universities or government officials. In Ghana, the SGP in collaboration with the University of Mines and Technology (UMaT) developed and piloted a direct smelting method that allows miners to extract gold without the use of mercury. In the Republic of Guinea, the use of 60 retorts (devices to capture invisible mercury vapor into liquid) reduces the emission and contamination of mercury in the gold mining process.



CREATING ALTERNATIVE LIVELIHOODS IS AN EFFECTIVE SOLUTION TO REDUCE THE USE OF MERCURY.

Due to such efforts the local population in the Republic Guinea returned to their original activities such as beekeeping and green charcoal production. Environmentally degraded sites were restored in the process. In Mongolia, trainings have been systematically conducted to support miners to develop alternative livelihoods including farming, bee keeping, sewing and others.



COMMUNITY INVOLVEMENT IS KEY FOR MONITORING MERCURY USE.

If communities have control over the mining areas, they will be effective in monitoring illegalities and the activities of small-scale miners to ensure compliance to law and quality control. In Ghana, community involvement in monitoring reduced the need for employing sophisticated and costly drones or other tracking systems to check for illegal mining activities. In the Republic of Guinea, community vigilance committees were set up to strictly observe the gold-panning ban that was adopted in a number of villages through consultation with local leaders, youth and women. In another project in the Republic of Guinea, collaboration with the community *tomboloma*, or mining police, has helped the monitoring activities of the project.



TRANSPARENT GOVERNANCE AND RULE OF LAW IN THE ASGM.

When project activities promote transparency and the rule of law in the artisanal and small-scale mining sector, they also reduce illegality in the communities and facilitate sustainable community mining. In Ghana, a project has compiled all the sanctions and violations in the mining sector and used the information to educate miners so that the miners are aware of the mining related offences. This is reducing the tension between the ASGM and the state mining inspectors.





The Small Grants Programme (SGP) is a corporate programme of the Global Environment Facility (GEF) implemented by the United Nations Development Programme (UNDP). Established in 1992, SGP's grantmaking in over 125 countries promotes community-based innovation, capacity development, and empowerment through sustainable development projects of local civil society organizations with special consideration for indigenous peoples, women, and youth. SGP has supported over 24,000 community-based projects on biodiversity conservation and sustainable use, climate change mitigation and adaptation, sustainable land management, conservation of international waters, and chemicals and waste management, while generating sustainable livelihoods.



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