

Improving Occupational Safety & Health in Artisanal Mining



What is the problem?

Artisanal and Small-scale Mining (ASM) mining involves the manual extraction of minerals using rudimentary tools and techniques. It is often carried out on an informal basis with little geological knowledge and scant attention paid to mine management or health and safety. ASM mines often present a wide range of physical hazards to workers which compromise their safety and wellbeing.

ASM mines present myriad risks including:

- Badly constructed pits, shafts and tunnels prone to collapse and landslides, flooding and lack of ventilation;
- Poor management of waste material leading to physical problems with waste dump, water contamination and health hazards including proliferation of disease (such as malaria) due to stagnant water sources;
- Lack of Personal Protective Equipment (PPE) or poor understanding of how to use it;
- Health impacts of exposure to dust, noise, underground work and heavy, repetitive, physical labor;
- Lack of potable water, latrines and sanitation leading to gastrointestinal disease;
- Physical risk of using inappropriate or poorly maintained equipment; and
- Use of hazardous materials.

The health impacts of artisanal mining are not limited to the miners and the mines. Diversion and siltation of water sources affects all surrounding and downstream communities too. Also, due to the often migratory nature of artisanal mining, miners and mineral transporters can spread illness and disease, particularly if they engage in promiscuous sexual behavior. Child and youth labor is prevalent in many mines and these young people are particularly prone to physical and psychosocial damage.



What are iTSCi and Pact doing?

The iTSCi system records all accidents that occur in the mines, particularly when these accidents involve fatalities, however whilst security related to armed groups or human rights abuses are addressed as a priority, the program does not have means to implement specific activities on the question of safety and health. This proposal seeks to move beyond due diligence and mineral traceability to overlay a new program to enhance Occupational Health and Safety (OHS) in artisanal mines.

Training on OSH standards – Training on OSH is most effectively and sustainably delivered through a ‘train the trainers’ approach in which mine managers, team leaders, cooperatives and government agents are trained to not only learn new OSH skills themselves but also to pass these skills on to others. Materials need to be in appropriate accessible formats maximizing use of imagery. OSH messages need to be seen on a continuous basis at mine site through posters and locally produced signage. Women need to be specifically involved as trainers and training sessions must be designed to accommodate the scheduling, discrimination and literacy challenges that women miners may face.

Monitoring and reporting improvements in OSH – Measuring the impact of training is crucial. This enables expansion of the most effective techniques, identification of particularly problematic sites and practices, and promotion of the behavior changes which are essential for sustainable improvements. The remoteness of many mining areas make reporting of accidents challenging. It is proposed to use the ubiquity of the phone network in the region to advantage by developing mobile apps to both disseminate OSH messages as well as to monitor and manage incidents. This would integrate directly with efforts to build the capacity of Government Services for ASM.

The building blocks that are in place

- Support from Qualcomm is enabling iTSCi to develop a new OSH curriculum for ASM in the DRC.
- The curriculum is based on national regulations, the standards of the International Labor Organization, and field-level adaptation to ensure it is appropriate for local conditions.
- Through partnership with the Dutch Ministry of Foreign Affairs, the new OSH curriculum is being trialed in 2 ASM areas.
- Through partnership with the PROMINES project of the Government of the DRC and the World Bank, the new OSH curriculum is being integrated into training for SAESSCAM.

What will your support do?

US\$20,000 will pay for local sign-writers to produce OSH signage in 3 mining areas.

US\$30,000 will pay for printing of 5,000 new OSH materials (handbooks, leaflets, and posters) in local languages for distribution.

US\$50,000 will pay for ‘train the trainers’ workshops in 2 new ASM areas.

US\$80,000 will pay for the development and trial of a new, mobile-phone application to deliver OSH messages to reinforce training.

US\$160,000 will enable the development and implementation a new mobile-phone based system for reporting and monitoring OSH incidents.

US\$200,000 will provide sponsored PPE (hardhats, masks, lamps) for 10,000 miners.

To contribute to the iTSCi Programme's ongoing field work infrastructure, contributors should also budget for an additional US\$7,500 per year for iTSCi membership.

For More Information

Karen Hayes

Senior Director, Mines to Markets
Pact

khaves@pactworld.org

+44 (0)7968 198 213

Kay Nimmo

Manager, Sustainability and Regulatory Affairs
ITRI

kay.nimmo@itri.co.uk

+44 (0)1727 871 312

Pact is an international, nonprofit organization with forty years of experience. Our vision is a world where those who are poor and marginalized exercise their voice, build their own solutions, and take ownership over their future.

