



**TRAINING REPORT ON FIRST AID, HEALTH AND SAFETY MANAGEMENT IN
ARTISANAL AND SMALL SCALE GOLD MINING (ASGM) COMMUNITIES**

MASARA, MIGORI COUNTY, MONDAY, 19TH AUGUST 2019,

Acknowledgement

CEJAD wishes to express its appreciation to Developing World Outreach Initiative (DWOI), for the financial support that made it possible to organize and hold the training. We particularly extend our sincere appreciation to Garrett Brown for his support and endeavors which made this possible.

1. Background

Migori County is largely known for artisanal and small scale gold mining. It is usually characterized as informal, illegal and unregulated by government, undercapitalized, utilizing simple tools and lacking in technology and hazardous under labor intensive conditions. However, it is a source of income for those living in rural, remote and poor areas of the county who are largely dependent on mining for sustenance.

Work environment around the mines point to a number of occupational malpractices that poses a significant risk to wellbeing of the mining community. The mining sites are characterized by high noise levels from ball mill crushers, high particulate matter from excavation and crushing activities, inadequate sanitary facilities, and use of mercury in ore amalgamation. Despite all this, use of personal protective equipment is almost nonexistent. Women and children are exposed to occupational hazards as they work as casuals within the mining sites. Cases of occupational injuries related to lack of machine safety measures, slips, trips and falls, as well as collapsing mines have been reported in the area for the past 2 decades.

2. Objectives of the training

1. Demonstrate proper selection and use of PPEs in ASGM sites and best practices for occupational hygiene and safety
2. Formulate health and safety committee in selected pilot sites

3. Workshop Approach and Methodology

The training was a one day event held on 19th August 2019. The workshop was participatory in nature and activities comprised both presentations and plenary discussion sessions. The training involved the following approaches and methodologies.

1. Use of visual aided presentations to give the trainees (ToTs) an in depth understanding of each and every topic to be adopted.
2. Participatory methods (plenary discussions) for the participants

4. Participants

The training was attended by ASGM miners in Migori, representative from Migori County government, leaders of mining groups and students from Jomo Kenyatta University of Agriculture and Technology (JKUAT)

5. Training Proceedings

The training started at 8.30 am with activities such as registration, welcoming remarks and introductions. An overview and purpose of the training was later given by Mr. Griffins Ochieng from CEJAD.

a. Mercury and other health hazards in ASGM and their impacts to human health and environment

This session was conducted by Mr. Griffins Ochieng where he explained most of the hazards present in the ASGM working environment. Among them included dust, noise, chemicals such as mercury and Occupational injuries. Members present were allowed to discuss among themselves and make presentation on the occupational hazards and possible ways to mitigate them. They were discussed as bellow:

a) Dust

This is a high risk to miners involved in ore crushing or working near the ore crushing sites. When inhaled can cause lung diseases and other respiratory ailments. Can also cause skin irritation and eye damage

Mitigating measures

- Prevention of dust can include workers supplied with PPEs such as Masks specifically respirators with activated charcoal.
- Keep the crushing and milling areas away from inhabited areas
- Ensure the crushing and milling areas are located downwind so that dust is not pushed into inhabited areas.
- Increase ventilation in crushing, grinding and tunnels.
- Putting the machines in aerated places
- Sprinkling water to paths to minimize dust
- After a day of work, change your clothes and leave them at work.

b) Noise

Noise exposure is a widespread problem in ASGM because of the use of heavy equipment; drilling and rock breaking; transferring, sorting and milling of rock; and the confined working environment. Overexposure to high volumes of noise, over an extended period of time, can cause workers injuries such as tinnitus (ringing in the ears), concentration problems and even deafness.

Mitigating measures

- Regular maintenance of machines is one of the essential ways to reducing noise.
- Keep the crushing and milling areas away from inhabited areas

c) Chemicals such as mercury

Mercury is used for ore Amalgamation in the mining sites, it is very toxic when ingested as it causes neurological problems.

Mitigating measures

- Wear gloves if you touch amalgam or use a stick
- Store the remaining mercury in a secure place out of children reach
- Burn the amalgam in an open air
- Wash hands very clean after handling chemical

- Avoid amalgamating near water bodies or in a sloppy landscape that may result to runoff.

d) Occupational injuries

This can be caused by mishandling of the machines or electrical instruments.

1. Machine safety

Mitigation measures

- All equipment to be operated by skilled personnel
- Protective gear used by all personnel operating machinery
- Machine well installed and frequently inspected
- Isolation of machine from dense areas
- Proper storage of portable machinery

2. Electricals

- Electrical wiring well installed and insulated
- Overloading should be avoided
- Only skilled and qualified personnel should operate the wiring

Use of well labelled and illustrated signs should be employed

b. Demonstrating use of PPEs in ASGM sites and best practices for occupational hygiene and safety

The miners were taken through how to use PPEs and demonstration made on how they are worn.

Best site management practices in ASGM.

- Pit latrines should be far from the houses
- The site should be fenced
- Paths to be designed
- For security purposes ,employ security officer
- putting warning signs
- fencing the shafts



Photo 1: Mr. Griffins Ochieng facilitating the trainers *Photo 2: Demonstration on use of PPE*

c. Formulation of health and safety committee

At the end of the training, the trainees, mainly the miners selected among themselves a health and safety committee for the mining. The following were the people selected.

1. Chairperson- Bismark Onyando
2. Vice chair- Eunice Juma
3. Secretary-George Otieno
4. Vice secretary -Elizabeth Michael
5. Treasurer- Rosalyn Olago



Photo 3: Sketch of site layout

Photo 4: Trainers during discussion

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MONDAY, 19TH AUGUST 2019, MASARA, MIGORI COUNTY**

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