

**REPORT OF OCCUPATIONAL, SAFETY, AND HEALTH TRAINING WORKSHOP  
FOR RESILIENT TEAM HELD AT LOGMMA HOTEL, KAKAMEGA COUNTY,  
FROM JULY 24<sup>TH</sup>- 26<sup>TH</sup> 2023**



**PREPARED BY**



**JULY 2023**

## **ACRONYMS AND ABBREVIATIONS**

ASGM	Artisanal Small-Scale Gold Mining
CEJAD	Centre for Environment Justice and Development
NGOs	Non-Governmental Organizations
PPEs	Personal Protective Equipment
DOSH	Directorate of Occupational Safety and Health Services

## Contents

ACKNOWLEDGEMENT.....	<b>Error! Bookmark not defined.</b>
ACRONYMS AND ABBREVIATIONS .....	2
1 Introduction.....	4
1.1 Training Objectives.....	4
1.2 Participants.....	4
1.3 Agenda .....	4
1.4 Methodology of delivery.....	4
2 PROCEEDINGS OF TRAINING WORKSHOP .....	5
2.1 DAY ONE PROCEEDINGS .....	5
2.1.1 Introductions .....	5
2.1.2 Remarks by the Chair and Patron of the resilient team.....	5
2.1.3 Training on Occupational Safety and Health.....	6
2.2 DAY TWO PROCEEDINGS .....	8
2.2.1 <b>Recap of day one</b> .....	8
2.2.2 <b>Training on Occupational Safety and Health</b> .....	8
2.2.3 <b>Conclusion of Day Two</b> .....	9
3 DAY THREE.....	9
3.1 Recap of Day Two .....	9
3.2 Day three training .....	9
4 Way Forward .....	10
Annex 1: Training Program .....	<b>Error! Bookmark not defined.</b>
Annex 2: Participant lost.....	<b>Error! Bookmark not defined.</b>
Annex 3: Sample of training certificate issues to the resilient team members .....	12

## **1 INTRODUCTION**

This report presents the proceeding of a training workshop on Occupational Safety and Health (OSH) held for the Kakamega County Artisanal Gold Mining (ASGM)resilient team

The training was held for three days, on 24<sup>th</sup> – 26<sup>th</sup> July 2023 at Logma Hotel in Kakamega town. The objective of the training was to equip the members of the resilient team with knowledge about the Occupational Safety and Health Act 2007 and basic skills for ensuring occupational safety and health at mines. The training was facilitated by two officers from DOSHS. The workshop was organized by the Centre for Environment Justice and Development (CEJAD) in collaboration with the Directorate of Occupational Safety and Health Services (DOSHS) with financial support from Developing World Outreach Initiative (DWOI) held back to with another training organized by CEJAD in collaboration with Solidaridad East and Central Africa.

### **1.1 Training Objectives**

The objectives for the three-day workshop were to:

- I. Sensitize the resilient team on the provisions of the Occupational Health and Safety Act 2007'
- II. Train the resilient team on basic fire safety
- III. Train the resilient team on First Aid
- IV. Train the resilient team on measures for ensuring the safety of special equipment and machines at mines

These were spread across the sessions of the workshop; the program is enclosed in Annex 1.

### **1.2 Participants**

The training brought together a total of 21 participants, 16 of whom are members of the resilient team. The remaining participants were drawn from DOSHS (trainers), CEJAD, Solidaridad and the State Department of Mining office at the county level. A complete list of the participants is given in Annex 2.

### **1.3 Agenda**

The agenda of the meeting was as per the workshop training program attached to this report (Annex 1)

### **1.4 Methodology of delivery**

The format of training included power point presentations, Q and A sessions and documentaries.

## 2 PROCEEDINGS OF TRAINING WORKSHOP

### 2.1 DAY ONE PROCEEDINGS

#### 2.1.1 Introductions

The meeting was called to order by a prayer from one of the participants at 9.30 am. This was followed by introductions and welcome remarks. This session was facilitated by Mr. Fredrick Otieno, a programs officer at CEJAD. Mr Otieno the gave an overview about CEJAD and the objectives of the three-day training. He stated that CEJAD is a registered public interest Non-Governmental Organization working to promote sound management of chemicals and waste to protect vulnerable communities.

He informed the participants that the training was organized following a request by the resilient team in 2022. He further stated that since its inception, the resilient team has been critical in reducing cases of accidents and deaths in the mining areas. However, the noted that despite this critical contribution, the team had not received any training on matters occupational safety and health thus limiting their capacity to save life or even respond to emergencies.

He informed the participants that CEJAD thus partnered with the state agency responsible for maintaining occupational safety and health in the country to train the team on issues of occupational safety and health and build their capacity in ensuring safety and health at mines.



*Figure: Mr. Fredrick Otieno, CEJAD taking participants through the objectives of the workshop and rules of engagement*

#### 2.1.2 Remarks by the Chair and Patron of the resilient team

The chairperson of the resilient team, Mr. Patrick Makhule gave remarks on behalf of the resilient team. He gave a brief history and the core function of the resilient team. He informed the participants that the resilient team was formed in 2021 following increasing cases of mine

collapse and deaths at gold mine sites in Kakamega, especially in Bushiangala gold mining site. He informed the participants that the team had been formed to promote health and safety at mines through a multi-agency approach.

He added that initially the team was composed of 25 members including the administration, and was only operating at Ikholumani sub-county. However, he informed the meeting that the membership of the team at the time of the training had changed to include only miners. He pointed out that this was necessary to spearhead self-regulation in the sector. Currently the team is composed of 16 members with representation from sub-counties with mining activities.

While celebrating the success of the team in reducing cases of accidents and deaths, he lamented the lack of proper anchoring of the team in law, something that he noted is hampering its legitimacy among the miners and other critical stakeholders. Furthermore, he also stated that the team is lacking facilitation to reach out to more miners. He finished his remarks by calling for entrenchment of the resilient team into law to improve its effectiveness in promoting self-regulation in the ASGM sector.

The remarks of the chairperson were followed by remarks from the regional Inspector of Mines, who is also the Patron of the Resilient Team. He urged the members of the resilient team to maximize on the training to gain the knowledge and guidelines on how to do their work effectively. He further emphasised the important role that the resilient team has played in reducing the number of deaths and accidents in the ASGM areas in Kakamega since its inception. Furthermore, he underscored the need of anchoring the resilient team into law as a mechanism for promoting self-regulation. He emphasised that while the State Department of Mining is serving as the patron of the team, the team is not for the ministry and should be fully owned by miners. He concluded his remarks by reminding the resilient team that they do not have enforcement powers but rather to work with relevant government agencies in promoting self-regulation in the sector.

### **2.1.3 Training on Occupational Safety and Health**

The remarks were followed by training on occupational safety and health. On day one, miners were taken through the following areas/topics:

1. **Provisions of Occupational Safety and Health Act (OSHA), 2007 and its subsidiary legislations;** The trainers took the participants through the provisions of the OSHA, 2007 to increase their knowledge and understanding of occupational safety and health, stressing the duty of employers and employees in maintaining safety and health at workplace. They were also taken through the subsidiary regulations under the Act.
2. **Workplace Hazards:** During this session, the participants were taken through ways of identifying and assessing occupational safety and health hazards in a workplace. The trainer underscored the need for miners and the resilient team to undertake regular health assessments for miners to prevent and mitigate occupational health risks.
3. **Construction safety:** This focused on construction of shafts and processing areas and measures for ensuring their safety. The miners were encouraged to ensure that their

shafts are built and inspected for safety before any workers are allowed into them. They were also advised to ensure that they use standard materials in constructing and operating the shafts.

4. **Electrical safety:** The participants were taken through measures for recognizing and avoiding electrical hazards in mining operations. This included proper installation and maintenance of electrical equipment, ensuring grounding to prevent shocks and using appropriate circuit protection. The session also explained the significance of avoiding makeshift wiring and promoting safe wiring practices. The team was also educated on the risks of working near water sources to prevent electrocution.



*Figure 2: Mr. Davis Otieno, DOSHS taking participants through OSHA and some topics in day one*

The following issues came up during the first day of training:

- I. Most miners are nomadic hence implementing some of the provisions of OSHA will be a challenge.
- II. Artisanal and small-scale miners work without any written contractual agreement hence it is difficult to understand the employer-employee relationship.
- III. Most miners are not aware of DOSHS and its mandate. It was recommended that there should be more future engagements between the miners and DOSHS to promote health and safety in the mining areas.

The resilient team and miners were encouraged to always reach out to DOSHS office in the county level (Kakamega) on any issue concerning occupational safety and health.

## 2.2 DAY TWO PROCEEDINGS

### 2.2.1 Recap of day one

The second day started with a recap of day one training followed by training by the facilitators from DOSHS. The recap session was facilitated by Mr. Fredrick Otieno of CEJAD.

### 2.2.2 Training on Occupational Safety and Health

Training covered the following areas/topics:

1. **Machine safety:** This session covered overview of common machines, general safety guidelines for operation of machines, and maintenance and inspection procedures. As part of the training, the participants also identified common machines used in the mining sites. Some of the machines identified by the participants included power saw, shaker tables, generators, compressors, crusher, mining winches both manual and electrical, large mining tracks hydraulic and dozers.
- 2.
3. **Plant Safety:** This focused on educating the participants about the safe operation of equipment, routine maintenance procedures, and the proper handling of hazardous chemicals used in the extraction process. They were also trained on how to identify potential risks, such as equipment malfunctions and inadequate ventilation, and to take appropriate corrective actions. The trainer emphasized the importance of wearing proper personal protective equipment (PPE) to minimize exposure to harmful substances and encouraged the reporting of any safety concerns promptly, fostering a culture of proactive hazard identification and prevention in ASGM operations.
4. **Accident Causation & Management:** The participants were sensitized on Worker Injury Benefits Act (WIBA). The trainer stressed that the Act requires employers to obtain and maintain an insurance policy, WIBA cover for workers to cover them in case of accidents suffered while on duty. This session also covered potential hazards at work place, safe practices, proper use of equipment and preventive measures including, adopting appropriate personal protective equipment, promoting proper ventilation, implementing effective communication, and ensuring compliance with regulations, ultimately minimizing accidents and creating a safer ASGM working environment.
5. **Chemical Safety:** In this session, the trainers emphasized on proper handling and disposal of mining waste and chemicals to prevent water and soil pollution in ASGM operations and comply with environmental regulations to avoid accidents such as fire. Participants gained a deeper understanding of the various ways in which the chemicals used in mining can negatively affect human health. Some of the chemicals that were mentioned during the training were mercury and cyanide. A discussion on possible alternatives to mercury use in gold recovery were also held.

The following issues came up during the second day of training:

- I. It emerged that people who undertake shaft construction and inspection of machines or electrical works in mine sites are not certified. Miners were advised to ensure that they use certified people to undertake shaft construction and electrical works among others to minimize chances of accidents.

- II. Miners were encouraged to always use DOSHS approved plant assessor to inspect machines and plants used in their operations.
- III. Participants wanted to know if shaft constructors need to have formal training and certification.
- IV. Most miners store chemicals such as concentrated sulphuric acid in their houses due to a lack of storage facilities and security on the sites.

### 2.2.3 Conclusion of Day Two

The second day of the training workshop concluded with closing remarks by Ms. Emmaculate, CEJAD who encouraged the participants to reflect on the knowledge gained throughout the day and consider how they could apply it within their roles in ensuring safety and compliance in various mining sites. The moderator expressed gratitude to the participants and trainers for their active engagement and insightful contributions.

## 3 DAY THREE

### 3.1 Recap of Day Two

The second day commenced with a recap of the previous day's sessions, aimed at reinforcing key learnings and concepts. Mr. Fredrick summarized the highlights and key takeaways from the training on chemical safety, plant safety, Accident Causation and management and Machinery safety as follows:

- The group highlighted the importance of employers ensuring their employees' safety is their priority.
- They discussed the need for an incident and accident record book to assist in knowing occurrences and how to rectify and put measures to prevent them from reoccurring.
- The participants emphasized the importance of encouraging mines to build their shafts following the construction regulations until the ministry develops a standard procedure.
- They discussed the need for buyers to burn their rocks outside of the houses to minimize exposure to sellers and to raise awareness amongst the buyers on the risk of chemical exposure.
- The group focused on the disproportionate impacts of unguarded machines on children, particularly those who play unattended near machines and abandoned shafts.
- They discussed the importance of mine site medical tests if the work area is exposed to chemicals to protect these communities.
- The participants highlighted the need for a thorough inspection of the built shafts and machines to be operated by skilled personnel.
- They explored the role of employers and employees' responsibilities in the artisanal small-scale mining sector.

### 3.2 Day three training

The third day of OSH training covered the following areas/topics:

1. **Personal Protective Equipment:** To deepen the participants' understanding of the importance of safety procedures in ASGM, a YouTube video was shown to demonstrate the usage and maintenance of personal protective equipment (PPE) and appropriate PPEs to use while handling different tools.

2. **First Aid Management:** This training concentrated on identifying the symptoms of distress, providing prompt assistance and care in the event of accidents or injuries, and stabilizing injured people. Participants learned how to identify and treat typical ASGM-related wounds like burns, cuts, and respiratory problems brought on by exposure to dangerous chemicals.
3. **Occupational Diseases:** the team was trained on how workers in ASGM are exposed to various hazardous substances and practices, leading to a range of occupational diseases. These include respiratory illnesses like silicosis and pneumoconiosis due to inhaling airborne dust containing silica particles from ore processing, neurological and renal damage caused by mercury exposure, and skin conditions such as dermatitis and rashes that result from contact with chemicals and minerals. Inadequate ventilation in shafts and improper use of personal protective equipment was blamed to possibly contribute to these health issues. ASGM workers are also at risk of musculoskeletal problems due to manual labor.
4. **Fire Safety:** Using a YouTube video for a demonstration, the trainer educated the team on fire risks linked to their mining activities, such as smoking cigarettes near flammable chemicals and equipment. The trainer covered proper storage and handling of hazardous materials, reducing ignition sources, and maintaining adequate ventilation to minimize fire hazards. Emergency response protocols were stressed, including fire extinguisher use and evacuation plans. The team also learned about personal protective equipment for fire situations.
5. **Workplace Inspection Techniques:** the trainer educated the participants about common risks in artisanal mining like chemical exposure, equipment malfunction, and structural instability. These techniques encompass systematic assessments of work environments, equipment, and processes to identify potential hazards and implement corrective measures. The trainer encouraged the team to report hazards on time and establish a culture of proactive safety awareness. They were also shown a template inspection data sheet which included visual assessments, equipment checks, and adherence to OSH regulations to improve workplace safety.

#### 4 Way Forward

The following were agreed as the way forward:

- The resilient team should cascade the information learnt to the wider mining community.
- The resilient team should promote the use of PPEs in mine sites.
- The various partners and State Department of Mining should explore ways of anchoring the resilient team for legitimacy and sustainability.
- More outreach is need to the mining community to recognize and embrace the resilient team Need to do outreach to miners for recognition and acknowledgment.
- There is need to sensitize the resilient team on the laws governing the ASGM sector to ensure that members operate within the law. This will also help them promote compliance within the sector.

- Need for regular inspection (without notification) of plant and machinery to identify and address potential hazards.
- There is need to raise awareness of the adverse impacts of unsafe storage and handling of chemicals on the miners and the importance of ensuring all chemicals are well-marked and labelled.
- The resilient team was advised to ensure that all electrical generators, crushers and machinery in mine sites/shafts are fenced to avoid accidents and unauthorized access.
- The resilient team should be trained in emergency response and preparedness to enhance response during times of emergency.
- The resilient team was advised to collaborate closely with DOSH to reinforce safety standards and procedures by visiting their offices, having regular meetings and reporting any incident out of their control.
- The resilient team to advise miners to maintain detailed records of safety inspections, incidents and training sessions and implement the keeping of a visitors' book in the mining sites to monitor the mining areas.
- It was recommended that the next phase of health and safety training should be hands on, with demonstrations at the mine sites.

Annex 1: Sample of training certificate issues to the resilient team members

















