

# JEMA JIONE COMPANY LIMITED

# JEMA JIONE

Mpanda, Katavi, Tanzania

## FLOTATION PLANT PROGRESS REPORT

### Gold and Copper Concentrate Plant

#### 1. Introduction

This report presents the investment development, employment contribution, operational progress, production performance, container sales, and ongoing plant upgrades of the Gold and Copper Flotation Plant operated by Jema Jione Company Limited located in Mpanda, Katavi.

#### 2. Investment Summary

The company has made significant capital investments in the establishment and continuous development of the Gold and Copper flotation plant to ensure sustainable operations, improved recovery efficiency, and long-term growth.

##### 2.1 Initial Plant Investment

Covered plant construction, installation of flotation cells, milling circuit setup, CIL section development, power infrastructure, water supply system, laboratory establishment, and tailings management system construction.

##### 2.2 Ongoing Plant Upgrade (2026)

To improve plant efficiency, increase processing capacity, and enhance overall operational reliability, the company is currently implementing several key infrastructure and process upgrades, including:

- Installation of a new crusher system
- Installation of a filtration unit
- Installation of a compressed air system for flotation cells
- Construction and improvement of the Tailings Storage Facility (TSF)
- General process optimization and efficiency improvements

##### 2.3 Expected Outcome of Plant Upgrade

The cumulative investment reflects the company's strong commitment to:

- Enhancing gold and copper recovery efficiency
- Increasing plant throughput capacity
- Improving environmental compliance and TSF safety standards
- Creating employment opportunities
- Strengthening long-term operational sustainability

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Project Construction and Development

### 3. Employment Contribution

The company continues to play a significant role in job creation and local economic development within the region through both direct and indirect employment opportunities generated by plant operations and ongoing upgrades.

- Direct Employment: 54 permanent staff.
- Temporary Upgrade Workforce: 20–30 workers.
- Indirect Employment: Over 40 beneficiaries including suppliers and transporters.
- Direct Employment After Upgrade: Expected to reach over 70 permanent staff

### 4. Operational Progress (May 2023 – Present)

#### 4.1 Operational Model

**Jema Jione Company Limited** Gold and Copper Flotation Plant operation involves empowering small-scale miners around the Katavi region by purchasing their end-product tailings (Marudio) and reprocessing them into high-value concentrate (Makinikia), while also commissioning our own underground mining operations to supply fresh ore to the plant, thereby ensuring consistent feed availability and increased recovery efficiency.

Year	Production
2023	Construction & Commissioning
2024	8 Containers
2025	12 Containers

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Mpanda, Katavi, Tanzania

2026

3 Containers to date

Each 20-foot container carries approximately 20–25 tons of concentrate.

These upgrades are designed to strengthen production performance, improve concentrate quality, enhance tailings management, and support long-term sustainable operations.

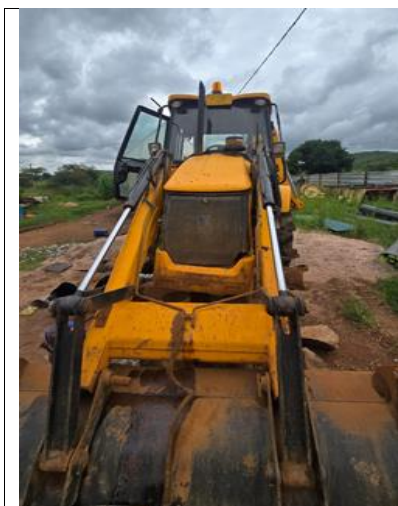
### 4.2 Plant Equipment and Capacity

Equipment	Model	Currently Capacity	Upgrade Capacity
Primary Crusher	PE250x400	-	15ton/hour
Secondary Crusher	PE150x750	-	10ton/hour
Ball Mill	Model 1530	3ton/hour	6ton/hour
Concentrate Filter	2YK1237	1ton/batch	5ton/batch

### 4.3 Heavy Mobile Equipment

The plant operations are supported by essential heavy mobile equipment to ensure smooth material handling and site activities:

- JCB Backhoe: Used for excavation, trenching, loading, site preparation, and general earthworks within the plant and mining area.
- Haulage Truck: Used for transporting ore, tailings (Marudio), and other supplies between mining sites and the processing plant.



JCB 3DX - T978 DYL



JCB 3DX - T978 DYL



FAW 340HP – T739 EYL

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## 5. Ongoing Plant Upgrades (February 2026 – Present)

### 5.1 Crusher System Installation

Installation of a new crusher system to facilitate feeding fresh ore from our mining sites, increase throughput capacity, improve feed size control, and reduce downtime.

All required civil works completed, Mechanical installation ongoing, commissioning expected to be at the end of March 2026.



Crusher System Installation

### 5.2 Advanced Filtration System

Installation of modern filtration equipment to reduce concentrate moisture below 10%, improve product quality, and enhance export efficiency.



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Mpanda, Katavi, Tanzania



Filtration System Installation and Operation

### 5.3 Flotation Air System Upgrade

Previously, the flotation cells operated without a blower system, resulting in inconsistent air dispersion, unstable froth formation, and reduced flotation efficiency, which negatively affected gold and copper recovery.

With the installation of a high-capacity blower system, the plant now benefits from stable and sufficient air supply, improved bubble generation and froth stability, enhanced flotation kinetics, and ultimately higher metal recovery and more consistent metallurgical performance.



Construction and Installation of Root Blower

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## 5.4 Tailings Storage Facility (TSF) Expansion

Ongoing TSF expansion including embankment raising, drainage improvement, and seepage control to support increased plant throughput and ensure environmental compliance.

All necessary permits from government entities already received so that we can proceed construction phase of the project. The construction will require heavy mobile equipment like excavators, wheel loader, roller compactor, haulage trucks and water buzzer.

## 6. Conclusion

Since commencing operations in February 2023, the plant has demonstrated steady growth, increased recovery efficiency, expanded export volumes, and strong commitment to sustainable mining practices. The ongoing plant upgrades mark a strategic transition toward increased capacity and long-term operational sustainability.