

# THE EAGLE



A Publication of Lubambe Copper Mine

Edition 5: January - June 2020



## LUBAMBE IN DIGITAL TRANSFORMATION

- Lubambe Marches Towards Automation
- Lubambe Launches INSAR
- New Data Base System Introduced at Lubambe







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# CEO's MESSAGE

Welcome to our first edition of 2020.

The first six months of this year have been quite challenging. Firstly, the advent of the COVID - 19 pandemic has disrupted normal business and the global supply chain. During this period, we witnessed a decline in copper prices on the international market by more than 20 per cent.

Encouragingly, the copper price started to recover towards the end of the first half of 2020, much quicker than we anticipated. At current levels we are now focussed back again on ramping up production.

To respond to the negative impacts of the COVID -19 and fall of copper prices, Lubambe modified its production plan in March. The Modified Production Plan (MPP) focused on minimising near-term production costs whilst sustaining production and preserving long term value. The MPP significantly reduced capital development to focus on mining developed reserves. Consequently, many metrics were lower than the first half of 2019.

Tonnes mined in the first half of the year was 763,769 representing a 6% drop from the first half of 2019. Copper produced was 10,997 tonnes compared to 11,650 in the same period last year.

However, what is very pleasing is the improvements we saw in Q2 compared to Q1 of 2020. Under the new MPP which we implemented in April Q2 copper production increased 14.5% compared to Q1 to 5870 tonnes. We also reduced our All In Sustaining Costs (AISC) by a massive 30% to \$2.69 per pound.

Our Safety performance continued to be good. We recorded one Lost Time Injury (LTI) in January which was the first such injury for 14 months. The rest of the months remained LTI free.

In our march towards automation, the mine procured five tele - remote units which have been installed and now operational. We have adopted tele remote loading of broken ground from stopes using underground loaders switched into tele-guidance mode. One of the major benefits of this technology is the reduction of workers' exposure to underground hazards.



The Mine has also introduced a Satellite Surface Deformation Monitoring System, InSAR to promote good hazard identification, manage risks and minimize negative effects of mining activities on the environment. All these new systems are aimed at improving our efficiency and ultimately ramping up production. Relevant staff are constantly being trained as they embrace the new systems and technology.

On 30th April, the mine presented labour day awards to 20 workers for their hard work and commitment to duty. The recognition of the workers was in line with Government directive for employers to honour their employees at in-house events despite the COVID-19 situation. I wish to commend all the deserving employees for their commitment to work. I also wish to reiterate our People Policy which affirms that the success of Lubambe comes from the hard work and achievements of our workers.

Although 2020 started on a difficult note with a lot of uncertainties, we are confident that we will be able to overcome the challenges and hopefully end the year on a better footing. I do urge you all to take Covid-19 seriously and follow our guidelines of wearing masks, social distancing and hand washing.

We are grateful to all our partners and stakeholders for the support that we continue to receive.

Keep safe and enjoy your reading!

**Nick Bowen**



# LUBAMBE MARCHES TOWARDS AUTOMATION

Underground Mining is undoubtedly one of the most hazardous occupations in the world, more so with the constant interaction and conflict between people and machines operating underground.

And despite stringent safety regulations in place around vehicles operating underground, there is always a potential risk of a serious accident.

Lubambe Copper Mine is not being left behind in this march towards automation and safety.

The mine has procured five tele-remote units which are already operational in ramps 1, 2 and 5, while two are awaiting installation in ramps 3 and 4 stopping sections of the mine.

Tele-remote control, like any other remote-control systems, is used for controlling loads and devices with a simple control setup. Lubambe has adopted tele remote loading of broken ground from stopes using an underground loader switched into tele-guidance mode. The operator works remotely, out of site and controls the machine loading Copper Ore from a cabin

which is equipped with control leavers and screens. The operator has full view of the unit as he loads and dumps into a stockpile in readiness for loading into dump trucks.

Some of the main benefits of this technology is the reduction of workers' exposure to underground hazards such as diesel particulate matter from heavy machines and vehicles, dangerous dust and damaging high noise levels and risk of injury from fall of ground among others.

Importantly, tele remote loading brings with it the production benefit of not having to shut down during firing times, depending on the location of the machine and the firing.

Lubambe believes that by implementing autonomous haulage, more material can be moved more quickly and safely, thus creating a direct increase in production.

Following the acquisition of tele remote units, Lubambe has embarked on a training of operators for the new equipment. Mining Superintendent James Banda says that 18



*Mathews Siwila entering a tele-remote cabin*



*Tele – remote cabin (exterior view)*

Loader operators and 14 fitters have undergone training to ensure smooth implementation of the new method of machine operation.

An external coach has also been engaged for site coaching in order to achieve safety and production targets set by the mine.

Mr. Banda adds that tele remote operations provide the safest way of loading from stopes as it takes away the direct exposure of the operator to open stopes.

“Another advantage of operating on tele-remote is that when the loader is in tele-guidance, it is very fast and provides for quick removal of ground from the

stope, hence facilitating for early set up to charge stopes in good time”, says Banda.

With tele-remote technology pegged as the future of mining operations, Lubambe's move to automate has many positive benefits - reducing costs, improving quality and increasing production.



# LUBAMBE CREATES ACCESS TO SHAFT BOTTOM, INCREASES HOISTING CAPACITY BY 60%

Lubambe has increased its hoisting capacity by 60 per cent following the creation of an access to the bottom of its shaft from ramp 2.

Mine Manager Alfred Ng'ambi says the creation of the access will mechanise the handling of spillage. Before this, spillage was being removed manually using shovels but will now be removed using loaders and back hauls.

“Before the breakthrough, the hoisting capacity was constrained but now, a significant improvement in the amount of time available for hoisting in the shaft has been made possible, by making the lashing of material at the shaft bottom a lot easier”, Mr Ng'ambi said.

Mining of the access covering a distance of about 280 metres began in January 2020 and on, 10 April, 2020, the access broke through.

Mr. Ng'ambi noted that a lot of time, about 25 hours a week was being wasted on lashing the spillage from the shaft bottom. “Lashing of spillage at the shaft bottom is a slow process as it involves manual or hand lashing. The type of material hoisted through the shaft is usually sticky and possess a challenge.



*Lubambe Mine Superintendent Vincent Museye (left) with JCHX Site Manager Dexter Mooya (middle) and Lubambe Shift Boss Terence Sinyenga (right) at the recently holed shaft bottom*



*Shaft bottom breakthrough*

During hoisting of material in the shaft, spillage falls to the bottom of the shaft. This spillage has to be cleaned to prevent damage to infrastructure and conveyances in the shaft.

Mr. Ng'ambi commended the technical team comprising of workers from Survey and Planning departments for providing the mining team with accurate information which

enabled the entire team and the Contractor JCHX, to accomplish the task.



# LUBAMBE LAUNCHES InSAR

Lubambe Copper Mine has become the first underground mine in Zambia to start using InSAR, a Satellite Surface Deformation Monitoring System in order to maintain good hazard identification, manage risks and minimize the environmental impact of its mining activities.

This is in line with the Environmental and Community Policy, as well as the Health and Safety Policy governing mining operations in Zambia.

In January 2020, the mine engaged the services of SkyGeo from the Netherlands to provide surface/ground movement monitoring using InSAR-based deformation satellite monitoring.

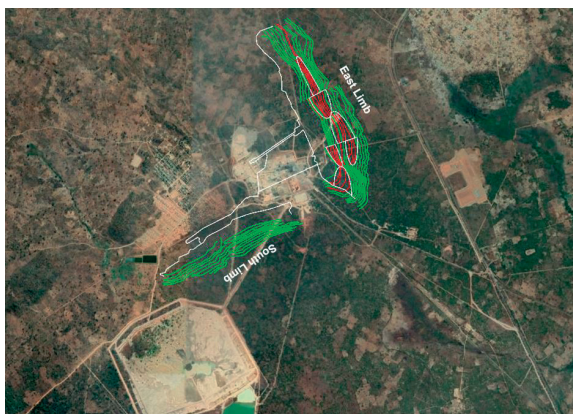
Technical Services Manager Charles Carnie disclosed that the system is used to monitor large scale assets that are prone to slow failure modes and deformation such as subsidence monitoring, tailings dam facility monitoring and open pit mine monitoring.

He said that the satellite monitoring provides millimeter

accuracy measurement with respect to deformation.

Mr. Carnie noted that the system will enable Lubambe to closely monitor the surface deformation on the East and South limb of the mine area, and critical surface infrastructure like the vent fans and the tailings dam facility.

He further disclosed that the system will also provide real time monitoring and will enable a quick response in ensuring corrective actions are implemented in the shortest possible time.



*Lubambe caving area*



# 750-METER-DEEP BORE HOLE SET TO BENEFIT LUBAMBE MINE

**L**ubambe Copper Mine has begun pumping water from a 750-meter-deep bore hole to monitor ground water levels and recharge rates.

Disclosing the development, General Manager Projects Tommie Van Der Walt said that an opportunity had been created to investigate alternative strategies to utilize the excess water.

He said test pumping was also being undertaken to ascertain the effectiveness of dewatering boreholes from surface in the Extension Area and to provide alternative and preferable water supply to the mine and to determine the aquifer parameters which are recharge rates and possible depressurising of deeper mining areas in the future.

Mr. Van Der Walt said that this would validate, update and reduce uncertainties in the groundwater model and estimated inflows for both the current mine and the Extension Area.

The test hole was drilled in 2015 in the extension area, where Lubambe is currently doing some exploration drilling.

Mr. Van Der Walt has revealed that groundwater flow modelling has indicated that most of the groundwater being pumped out will be clean and will help Lubambe deal with water outages. Currently, sampling of water is underway to ensure the quality is suitable for consumption and environmental use.

He added that the Extension Test Hole and its current construction presents a unique opportunity to hydraulically test the approximately 200-meter head of water in the hanging wall “aquifer,” whilst monitoring recharge rates as well.

“Currently, hydraulic parameters that have been used for the ground water model are based on assumed values derived from the conceptual model, typical values and calibration to the very limited available data, hence, the model only provides a first order approximation of inflows which makes it challenging for water management infrastructure planning,” Van De Walt added.



*Installation of 750-meter-deep bore hole*



# LUBAMBE UNDERGROUND ROADS RECEIVE FACELIFT

Lubambe has continued to invest in the improvement of its underground roads in an effort to keep production at optimal level.

The poor state of roads following an accumulation of water in Ramp 2 threatened to affect production at the 175mL towards the end of January. A team of 27 miners championed by Mine Operations Specialist Shane Manson and Mine Captain Evaristo Bwalya was formed to reconstruct the road from 175 mL to 312 mL in ramp 2 in the South Limb. Management has since commended and

rewarded the team that worked on the 1.673m road for a job well done. The scope of work included grading, construction of the road base, and compaction.

Speaking during an appreciation ceremony at the mine, General Manager Operations Tony Davis thanked the team for improving the roadways and commended them for their skill and ability to maintain the underground roadways.

He challenged the team to apply their skills and fix other roadways so

that all areas are easily accessed.

Meanwhile, the mine has also created a truck route between ramp 3 and ramp 4 for easy access between the two ramps, thereby improving productivity.

Before the holing through of the truck route, it was difficult for one to move between the two ramps. The holing of the truck has also resulted in the creation of a one-way traffic system that allows machinery to go inside and out of the ramp by using two different routes, eliminating the

need for reversing, in case of a blockage in the truck route, says Mine Manager Alfred Ng'ambi.

Mr. Ng'ambi added that the possibility of roads to degenerate after some time is very high because of the nature of vehicles and the water that washes the roadways when uncontrolled, adding that although underground machinery is designed to cope with rough conditions, the less damage there is to machinery, the lower the costs of maintenance, hence the need for better roads.



*Underground road before rehabilitation*



*Underground road after rehabilitation*



# LUBAMBE EXISTING MINE HAS LIFE OF AT LEAST 11 YEARS - STUDY REVEALS

A Life of Mine (LOM) study concluded in February 2020 by Australian Mining Consultants (AMC) has revealed that the existing Lubambe Copper Mine has a mine life of at least 11 years.

A Life of Mine study looks at the current reserves of an ore deposit and at the optimal extraction of that ore. The study conducted in February, excludes the much larger deep Extension Project for Lubambe.

The February 2020 LOM study allows Lubambe to integrate the current mine with the much bigger and higher-grade Extension Project to the south, which could ultimately lead to a combined mine life of over 50 years.

Lubambe Technical Services

Manager Charles Carnie says that the LOM plan utilises a number of mining methods from Longitudinal Room and Pillar (LRP) with no backfill (shorter-term transition) to ultimately mining methods with backfill (paste fill).

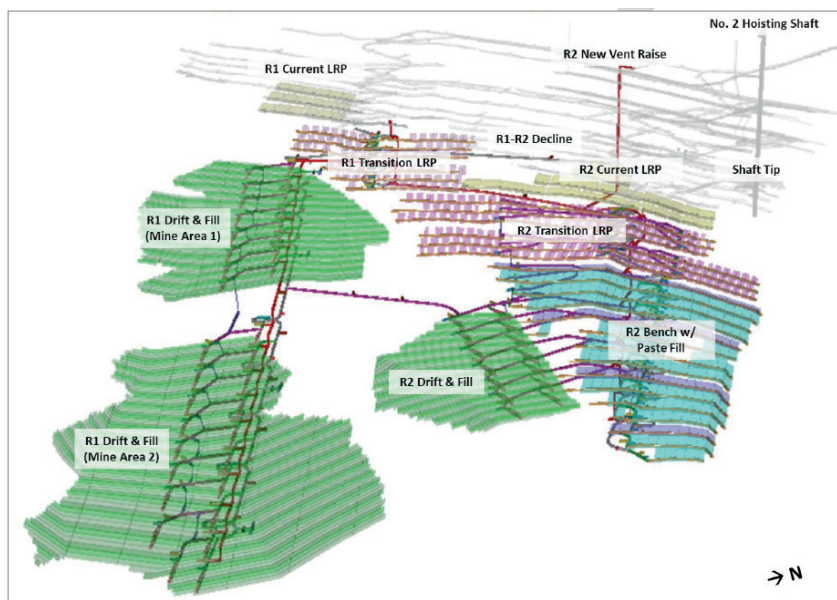
Paste fill mining methods will include a development-drift panel method for the flat-dipping areas as well as longitudinal up-hole stoping, without rib pillars for the steeper areas of the orebody.

“In order for the LOM to be completed to an acceptable (an auditable) level of detail, an update of the Resources and Reserves was required as the previous resource statement dated back to June 2017. This statement was

completed under the guidelines of the South African Mineral Reporting Code (SAMREC) and a decision was taken to complete an updated Resources and Reserves statement under the Australian Joint Ore Reserves Committee Code (JORC) code, he added.”

He said both codes are used as a guideline for stipulating the minimum standards for reporting of Exploration Results, Mineral Resources and Mineral reserves.

A Mineral Resource is the classification of mineralisation based on increasing level of geological knowledge and understanding. Ranging from least understood (Inferred) to the most understood (Measured).



***South Limb Mining LOM (Mining methods LRP, Drift Panel and Up-hole with Paste)***

Mineral Resources must have a reasonable prospect for eventual economic extraction while a Mineral Reserve is the classification of a Mineral Resource based on

economic feasibility for extraction, ranging in confidence from probable to proven reserves. Various modifying factors are used to convert from Resources to

Reserves and include but are not limited to; mining and geological knowledge, metallurgical, economic, environmental, marketing factors and so on.



# OPERATIONAL SUMMARY – FIRST HALF OF 2020

Safety performance continues to be good. There was one lost time injury recorded in January which was the first such injury for 14 months. The rest of the months remained LTI free.

During March a modified production plan (MPP) was

implemented in response to the coronavirus pandemic and subsequent fall in the copper price.

The MPP strategy involved a significant reduction in capital development and focusing on mining the developed reserves. Consequently, many of the

metrics were lower than the first half of 2019.

Encouragingly, the copper price has recovered much quicker than expected which will result in the mine returning to pre COVID-19 levels throughout the second half of 2020.

	Q1 2020	Q1 2019	%var	Q2 2020	Q2 2019	% var
<b>SAFETY</b>						
LTIFR	0.10	0.00	-100%	0.00	0.00	0%
TIFR	0.91	0.31	-66%	0.77	0.40	93%
<b>PRODUCTION</b>						
<b>Total Development (m)</b>	<b>3,248</b>	<b>2,789</b>	<b>16%</b>	<b>2,356</b>	<b>2,775</b>	<b>-15%</b>
Ore developed (m)	1,751	2,061	-15%	1,808	1,283	41%
Waste Developed (m)	1,497	728	106%	548	1,492	-63%
<b>Total ore tonnes mined</b>	<b>359,494</b>	<b>417,833</b>	<b>-14%</b>	<b>404,275</b>	<b>398,234</b>	<b>2%</b>
Stoping (t)	246,172	285,857	-14%	290,528	319,654	-9%
Development (t)	113,322	131,976	-14%	113,747	78,581	45%
Tonnes milled (t)	361,724	401,669	-10%	408,820	406,913	0%
Mill head grade (%)	1.78%	1.86%	-4%	1.80%	1.68%	8%
Concentrator recovery (%)	79.46%	82.73%	-4%	79.68%	80.03%	0%
<b>Recovered Copper (tonnes)</b>	<b>5,126</b>	<b>6,182</b>	<b>-17%</b>	<b>5,870</b>	<b>5,468</b>	<b>7%</b>
<b>COSTS &amp; Price</b>						
C1 (US\$/lb)	3.09	2.57	20%	2.31	3.12	-26%
AISC (US\$/lb)	3.86	3.5	10%	2.68	3.86	-31%
Realised average Cu price (US\$/lb)	2.56	2.82	-9%	2.42	2.77	-13%



# LUBAMBE'S RESPONSE TO COVID - 19

As the world grapples with COVID – 19, Lubambe has put in place various measures to fight the spread of the disease and ensure that mining operations are not disrupted at the mine site in Chililabombwe. Some of the measures that have been put in place include:



*Temperature screening*

## **Restriction of visits to the mine site**

Visits to the mine have been restricted. Only permitted visitors critical to production are allowed to enter the mine, provided they lodge in an application 48 hours in advance subject to approval by management. Visitors and employees are also subjected to a screening process prior to entering the mine daily.



*Hand Sanitisation*

## **Hand washing and sanitisation**

The Mine has placed hand washing basins and sanitising facilities at all entrances and strategic points for all persons entering and leaving the mine. All biometric access machines are sanitised every time they are used by one person. Sanitisation facilities have also been placed at all printing areas.



*Social Distancing in Buses*

## **Social distancing**

The mine has reduced the number of people using mine buses by half and consequently increased the number of buses to accommodate all employees. The buses are disinfected after every trip.

## **Suspension of mass gatherings**

Only 10 people at a time are allowed in board rooms. Not more than two people at a time are permitted in kitchens and not more than two employees are allowed to sit on one table in the cafeteria.

## **Meeting rooms and common facilities**

Mass gatherings of more than 50 people and all external trainings have been suspended.

## **Additional measures**

Mandatory breathe alcohol tests have been suspended and employees coming from outside the country are being subjected to the mandatory quarantine period of 14 days. Wearing of face masks at the mine is mandatory. All employees have been provided with face masks.



*Disinfection of mine vehicles*

## **Additional measures**

Security patrols around the mine boundaries have been heightened to curb trespassing and signage has been placed in strategic places to prohibit people from unauthorised entry. All light and heavy mine vehicles are disinfected daily at the start of every shift.



# LUBAMBE JOINS COVID-19 FIGHT

On January 30, the World Health Organisation (WHO) declared a pneumonia of unknown cause, a Public Health Emergency of International concern. On February 11, WHO announced the name of the new virus as Coronavirus disease or COVID-19 and declared the COVID -19, a global pandemic on March 11.

The deadly COVID -19 is not

only a global health concern but an economic one as well, with far reaching negative effects. The disease has disrupted business, supply chains and the social lives of citizens across the globe.

According to the World Health Organisation, the world had recorded over 7 million confirmed cases of COVID - 19 with over 400, 000 deaths by mid June. In Zambia, over 1,300 people had contracted

the disease by mid-June with 11 deaths.

The first two COVID -19 Cases in Zambia were recorded on March 18. Since then, the Government of the Republic of Zambia stepped up the fight against COVID - 19 and announced a number of protocols to mitigate the spread of the deadly disease.



*Mines Minister Richard Musukwa receiving sample hand sanitiser from Lubambe's Communications Manager Loyce Saili and Risk, Security and Compliance Manager Alinani Simukonda in Lusaka. Lubambe pledged K400, 000 towards the fight against COVID-19.*



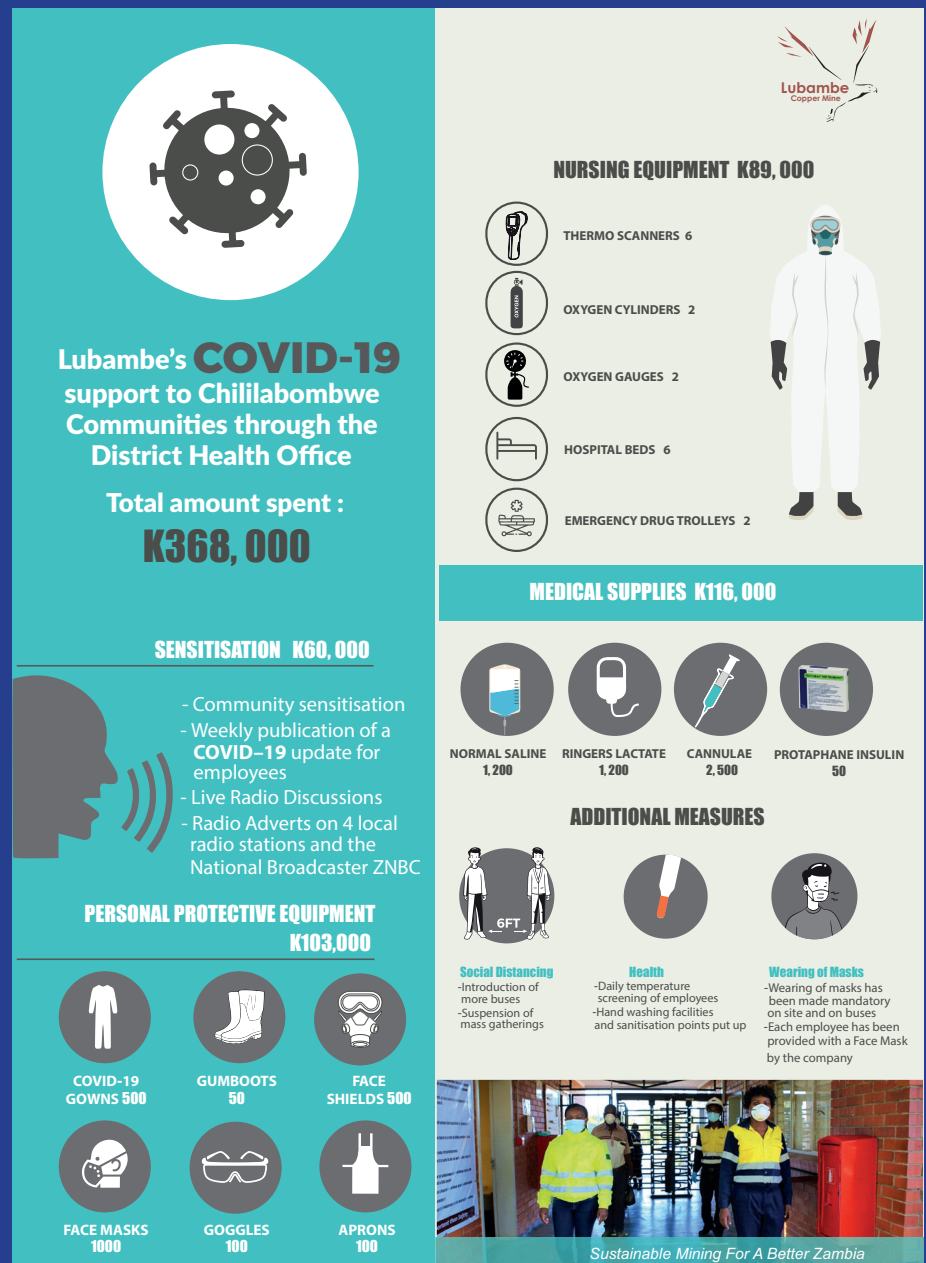
A number of corporates, private organisations and religious bodies have joined efforts with Government to fight COVID-19. For Lubambe, a mining firm employing approximately 2,000 full time and contractor employees in Chililabombwe, has joined the fight. On April 8, Lubambe announced support to Government worth K400,000. The funds were to go towards procurement of various medical supplies and equipment for the District Health Team in Chililabombwe. Part of the funds were also to be used for broadcast of sensitisation messages on local and national media.

In a letter addressed to Mines Minister Honourable Richard Musukwa, who is also Chililabombwe Member of Parliament, Lubambe Chief Executive Officer Nick Bowen announced Lubambe's support to government in the fight against COVID-19. Mr Bowen indicated that the support would be targeted to beneficiaries in Chililabombwe and surrounding communities. He said the mine was happy with Government's resolve and efforts to contain the pandemic.

Reacting to Lubambe's support, Honourable Musukwa noted that Government was grateful for Lubambe's support particularly that the gesture bordered on safeguarding the lives of the Zambian people in Chililabombwe.

The mine, in collaboration with the Chililabombwe District Health Office identified medical supplies critical to the fight against COVID-19. The supplies which include: COVID-19 gowns, gumboots, face shields, face masks, goggles, aprons, oxygen

cylinders, oxygen gauges, hospital beds, thermo scanners, injections, and assorted medicines, among others, have since been delivered to the District Health Office.



# LUBAMBE OFFICIALLY OPENS STATE OF THE ART CLINIC TO ENHANCE DELIVERY OF HEALTH SERVICES TO WORKERS

Lubambe has officially commissioned a US\$ 300,000 (K5.550 million) state-of-the-art Clinic and brand-new ambulance that will provide quality primary health care services and offer quick emergency response to its employees and contractors. The facility will also serve as a first aid centre in case of accidents.

The clinic which will operate 24 hours daily, has the capacity to handle multiple emergencies, primary and occupational cases, wellness programmes and trauma cases.



*General Manager Operations Tony Davis cuts ribbon, as he is assisted by Paramedic Sooi Lombard*

The Mine has also employed highly competent and skilled staff who include: a resident Medical Doctor, Paramedic, three Nurses and four drivers to provide the best health care services to employees.

Lubambe General Manager Operations Tony Davis who officially opened the Clinic last Friday, is happy that the Mine has made major strides in raising its standard in safety and Health services to its employees. Mr Davis noted that as Lubambe strives towards attaining its vision of becoming the best Copper Mine in Zambia, it was important for the mine to maintain very high standards in key areas such as Health and Safety. The Mine has in the last two years invested heavily in health and safety.

He expressed happiness that the mine had employed the right people to provide emergency response and quality health care to the work force.

Speaking at the same event, Mine Workers Union of Zambia Branch Chairman Godfrey Mwale who spoke on behalf of all three Labour Unions at the Mine thanked management for the construction of the Clinic which he said had come at the right time.



Mine Manager Alfred Ng'ambi expressed happiness that the construction of the clinic would enable workers to receive quick and quality health care.

Resident Medical Doctor Thierry Kamwasha Mumba said he was glad that Lubambe was adhering to the World Health Organisation's call for strengthened health systems across the globe through the implementation of Sustainable Development Goals (SDG's).

He advised employees to make use of the facility and that the medical team was there to serve them.

The new ambulance is equipped with modern equipment that includes: a fully assist ventilation transport ventilator which is electrically driven and uses less oxygen than other transport ventilators allowing for longer ventilation time per oxygen cylinder.

The Clinic also has 12 lead Electrocardiograms (ECG) with; the latest ECG interpreting software, in line with CO2 monitoring for ventilated patients, external pacing, defibrillator, blood pressure and temperature monitoring, Automated Haematology machine, Bedside sonar, Autoclave sterilizer to sterilize surgical instruments, Emergency Trolley with the emergency medication and ventilator.

Other equipment includes: Emergency bed allowing for resuscitation and the transport of the patient with the mattress, Intraosseous drill and needles to establish a high capacity line for patients in a trauma case. The clinic also has an ambulance that is fully equipped with advanced life support equipment.

Previously, the Mine only had a one roomed facility which was inadequate in terms of space and offered no privacy for patients. The old facility had no capacity to accommodate multiple casualties or incidents due to inadequate space and equipment. In total contrast, the new clinic will offer World-class standards and medical services.

The new clinic will be accessed by over 2, 000 Lubambe and contractor employees.



*General Manager Operations Tony Davis with management and Clinic staff of the new clinic*

# LCM RESCUE TEAMS RECEIVE BOOST

A mine beset by a natural disaster or catastrophic event immediately turns to its Emergency Response teams to coordinate and execute rescue and recovery efforts.

For underground mines, calamities could include: an explosion, fire, roof collapse or inundation of water. The conditions that confront Emergency Response Teams hundreds of feet below surface could spell the difference between life and death.

In an effort to enhance its Emergency Response and Preparedness, Lubambe Copper Mine has procured world class mine rescue equipment for its six mine rescue teams to enhance their Emergency Response.

The equipment includes: critical

spares, rope rescue equipment, lifting equipment, cutting equipment, compressor for refilling surface breathing apparatus, consumables, breathing apparatus for use in fire-fighting on surface and an overhaul of the breathing apparatus (BG4 sets) for underground use.

Prior to the procurement of this equipment, the rescue teams used less advanced equipment or would call upon other mines for help in cases where they did not have the necessary equipment to undertake certain rescue operations. For example, in case of a fall of a person through the grizzly, down into the tip underground, ropes would be required to rescue such a person but our teams had improvised ropes to undertake such a rescue mission. The new standard ropes are advanced and will enable the teams to

retrieve a person in case of such an accident

Safety, Health and Environment (SHE) Manager Daniel Chihili says that the newly procured equipment is critical in both surface and underground rescue operations as they serve different purposes in ensuring that rescue operations are carried out successfully.

He said equipment such as critical spares were necessary for the breathing apparatus and for underground rescue teams to be prepared in case of an emergency, while the rescue rope equipment was a kit of specialised rescue equipment for the rescue of persons in an underground environment. These ropes and techniques can also be used by surface teams.



*Surface emergency preparedness training*



*Underground emergency preparedness training (3)*

Mr. Chihili also disclosed that Lubambe had trained its mine rescue teams in Emergency Preparedness to equip the teams with current skills and techniques in emergency response.

The training was conducted by Jack Rowland from Gryphon and Rescue Services of South Africa.

The training was on rope rescue techniques with a focus on safety.

Lubambe Rescue Teams Manager Frank Banda has expressed gratitude to management for supporting the teams by hiring a trainer for them to be specialised in new mine rescue techniques. Banda said the training would undoubtedly enhance the team's performance in its rescue

operations.

Greatwell Sinkala, a mine rescuer also has thanked management for buying world class equipment for the rescue teams. He said the gesture by management was motivating. He added that the new equipment procured by the mine coupled with the training would enable the rescue teams do their job well.



# Fatigue

By Eric Ngandu



Fatigue is feeling overtired, with low energy and a strong desire to sleep that interferes with normal daily activities. It isn't the same as simply feeling drowsy or sleepy. When you're fatigued, you have no motivation and no energy. Being sleepy may be a symptom of fatigue, but it's not the same thing. Lubambe has put in place a fatigue management system, in which everyone plays an active role in its development, implementation, and sustainability.

## Why does fatigue happen?

Fatigue is the body's response to a depletion of resources required to handle an immediate task. While perhaps overly simplistic, it can be helpful to think of fatigue as a mechanical balance scale, with "things that replenish" on one end and "things that deplete" on the other end.

The more weight on one end, the more that needs to be accommodated on the other end. That is to say, the more depleted one is of energy (fatigued), the more resources will be needed to replenish and balance the scale. Further, the types of replenishment needed will

depend on the type of fatigue affecting the worker (physical, mental, etc.).

What remains to be seen, however, is how much these different items or factors weigh on one side of the scale versus the other, how much the weights differ from person to person, job to job, or task to task and if the type of fatigue (e.g., physical, sleepiness, etc.) matters for the type or weight of the factors that replenish. For example, a nap may be an ideal counter measure for fatigue due to a lack of sleep, but may not appropriately counterbalance mental or emotional fatigue in the same way as a work break or a day off of work.

Two key contributors to fatigue are insufficient sleep and disruptions in normal sleep cycle. Most individuals will go through several cyclic sleep stages, each cycle about 90 minutes in length, during each sleep period. Disruption of the sleep cycle by shortening or even eliminating some stages can lead to fatigue and its attendant consequences. There are five basic sleep stages with stages 1 to 4 comprising non-rapid eye movement sleep, and stage 5 rapid eye

movement sleep (characterized by rapid eye movements). Most individuals require between 7 and 8 hours of sleep per night to be fully alert, although some require only 6 hours, and others may require as much as 10 hours per night. When considering health, safety, and productivity, what seems to be as important as duration and quality of sleep is the time when an individual's intrinsic circadian rhythm sleep occurs

### **How Fatigue affects a work place**

Fatigue has very real, tangible effects on the workplace. The most concerning ones are an increased rate of accidents and injuries, a negative influence on decision-making, and lower productivity.

### **How Lubambe Minimises and Manages Fatigue**

In the Fatigue Management Plan, employees are encouraged to;

- Distribute strenuous work throughout the day, rather than doing it all at one time.
- Try to rest before doing the really heavy work.
- Plan complex tasks carefully.
- Not over stress oneself
- Use good manual handling and ergonomic techniques such as maintaining good posture to take the strain off your joints and working efficiently by arranging tools in ones work area
- Spread work throughout the day and take planned rest breaks
- Use labour saving devices, such as trolleys and fork lifts, to conserve energy.





# LUBAMBE RECORDS IMPROVEMENTS IN WASTE MANAGEMENT

**L**ubambe has invested in the procurement of high-class hazardous waste management equipment to enhance management of waste at the mine.

As part of the programme, the mine has bought an Oil Filter Presser stationed at the Mobile fleet workshop, oil filters and a Bulb Eater for management of waste Fluorescent Tubes/bulbs.

The Bulb Eater comes with a three-stage filtering process which enhances the efficiency of capturing toxic vapours for up to 99.99% from crushed waste fluorescent lamps/bulbs, guaranteeing a safe work environment for operators, the entire workforce, as well as ensuring a clean and health environment.

The Oil filter presser which operates Pneumatically provides for up to atleast 85% compression of the initial waste oil filter volume while pressing out the residua oils. This renders the remains of the waste oil filters less hazardous and the metallic part of the filters will be collected separately and handled as scrap metal.

In May 2019, Lubambe's Environmental Unit embarked on a program to improve waste management on site and to ensure compliance to regulatory requirements and above all, contribute to the Company's aim of minimising environmental impacts under the Lubambe Copper Mine Environment and Community Policy.

As part of this programme, the mine developed a standard Waste Management Operating Philosophy, a document that highlights the basic management requirements of all the various waste streams on site and the consequent development of a waste management procedure.

Part of the minimum requirements for management of waste as stipulated in the philosophy is segregation of waste into specific

management streams. Thus, the program saw an introduction of the use of colour coded waste receptacles, standard area applicable waste signage and splitting of the salvage yard into three yards to include Hazardous Waste Yard, Scrap Yard and the Salvage Yard as the initial activities in implementing waste segregation.



*Transition from Manual crushers to Morden class Crushers with reduced exposure to mercury vapour*

# LCM INCREASES SPEND ON LOCAL SUPPLIERS

Lubambe Copper Mine has developed a Local Sourcing Strategy aimed at increasing its spend on local suppliers and contractors.

LCM Communications Manager Loyce Saili disclosed this during a media briefing in January. The initiative is aimed at giving an opportunity to more Zambian companies to do business with the mine.

She said the mine had about 950 active registered suppliers and out of these, nine percent were local Zambian owned

companies, 24 per cent were Zambian owned companies and 45 per cent were foreign owned but Zambian registered suppliers.

She disclosed that Zambian owned companies are defined as companies in which indigenous Zambians have a shareholding of at least 50 percent while local Zambian companies or suppliers are defined as companies in which indigenous Zambian's shareholding is at least 50 per cent and the company has a registered address in Chingola

or Chililabombwe.

In line with this strategy, the mine has awarded a number of major contracts to Zambian owned firms. Mining Haulage has been awarded a contract for the hauling of Copper Concentrate, Transco Company Limited for waste management and Chembe Motorways has been given a contract to ferry employees and Mvumabaranda Public Health Services a contract for cleaning services.



*Communications Manager Loyce Saili (middle) addressing journalists during a media briefing with CSR Manager Lomthunzi Mbewe (right) and former Supply Chain Manager Wilma Nyondo (left)*

Ms. Saili added that Lubambe would continue to increase the local spend for local suppliers through various initiatives such as the vendor evaluation of unregistered Zambian owned and local contractors in order to identify their capabilities.

She further said that the Chililabombwe mining firm would also continue to register

local companies which are beneficial to the operations of the mine and will restrict certain works to Zambian suppliers or contractors that meet the minimum standards of quality, capability, cost and aftersales service.

“The use of sub-contracting for some contracts issued to international suppliers or contractors is also part of the

mine's Local Sourcing Strategy.” The Association of Mine Suppliers and Contractors has in the past called on all Zambian mines to give business opportunities to local suppliers or contractors. The government has also begun working on a statutory instrument (SI) to compel mining houses to give preference to Zambian suppliers or contractors when awarding contracts.



# LUBAMBE UNIONISED WORKERS IN 8.5 PAY RISE

On January 24, 2020, Lubambe Management and the three Labour Unions at the Mine signed a new Collective Agreement awarding unionised employees a pay rise of 8.5 per cent across the board.

The new Collective Agreement covers the period 1 January to 31 December 2020.

In a communique to employees, following the successful signing of the agreement, Chief Executive Officer (CEO) Nick Bowen expressed happiness that once again, Lubambe Management had demonstrated that it was passionate about its workers and would continue to strive and ensure that employees were appropriately

remunerated, despite the numerous challenges that the mine was facing.

He said the increase in wages combined with improved conditions of service was a sign of management's resolve to pay employees industry competitive salaries and to reward hard work.

Based on the new Agreement, employees have been awarded increased Medical Discharge benefits from three to four months basic pay for each completed year of service on a pro rata basis.



*General Manager Operations Tony Davis (right) handing over a shirt to Mine Workers Union of Zambia (MUZ) Deputy Secretary General Godfrey Kupila as a sign of good will during the signing of the new collective agreement .*

# 20 EMPLOYEES GET MANAGEMENT NOD FOR HARD WORK

Twenty Lubambe employees have received labour day awards in various categories for their hard work and commitment to duty.

Lubambe observed a Government directive to hold in-house labour day activities. The 20 employees received awards at events held in the

various departments of the mine. This year's International Labour Day was observed under the theme: "Reducing Developmental Inequities through Sustainable Job Creation."

Speaking at the various departmental award ceremonies, General Manager Operations

Tony Davis said management recognised the importance of Labour Day on the Zambian calendar and was happy to acknowledge and reward hard work and the efforts of deserving employees.



*Alex Chinyimba Bwalya from HR, receiving a labour day certificate from General Manager Operations Tony Davis (left)*

He commended all award recipients for their exemplary attitude towards work and encouraged them to continue working hard. In spite of the COVID - 19 pandemic, Lubambe honoured its

employees as guided by the Ministry of Labour.

The ministry of Labour banned all 2020 Labour Day activities in view of the COVID -19 pandemic but urged employers to hold

in-house labour day events. The presentation of awards at Lubambe was done at various departments in adherence to COVID-19 transmission prevention guidelines set by health experts.



# LCM SIGNS THREE MOU'S - PUSHES FOR SKILLS UPGRADE

Lubambe Copper Mine has signed three Memoranda of Understanding (MOU) in the first quarter of 2020 with three Technical Education, Vocational and Entrepreneurship Training (TEVET) registered training providers to upgrade the skills and technical knowhow of employees at the mine.

The three training providers, Kafue Gorge Regional Training Centre (KGRTC), Zambia Electricity Supply Cooperation (ZESCO) Training Centre and Industrial Training Centre have enlisted to provide training and

signed contracts with Lubambe. TEVETA has since approved the MOU's and given a go ahead for training to commence.

Learning and Development Superintendent Rodgers Kayombo said the training will be offered at various levels and in line with identified business training needs with focus on legal compliance, technology leverage, innovation and productivity.

"The signing of the MOUs was an important step in acquiring the TEVET Fund, financed by the Skills Development Fund (SDF),

Mr. Kayombo added.

During his visit to the mine in February this year, Technical Education, Vocational and entrepreneurship Authority (TEVETA) Director of Finance and Administration Dr. Phillip Mubanga urged the company to continue exposing its employees to further training so that workers improved their skills and remained constantly motivated. Dr. Mubanga visited the mine to evaluate the Skills Development Fund Window 1.

Finance and Administration Director Dr. Phillip Mubanga urged the company to continue exposing its employees to further training so that workers improved their skills and remained constantly motivated. Dr. Mubanga visited the mine to evaluate the Skills Development Fund Window 1. He disclosed that TEVETA will now be calling for Employer Based Training (EBT) proposals every quarter, in order to give companies more windows to apply for in-service training.



*TEVETA Director of Finance and Administration Dr. Phillip Mubanga (middle) with Lubambe's training technocrats*

During his interactions with beneficiaries of the training, Davis Chisulo, an Electrical Foreman said that he has tremendously improved his technical skills in his role and appealed to the Lubambe

Mine Management to continue exposing more employees so that the mine could improve efficiency and productivity.

Under the first window, 140 Lubambe employees have

been trained in technical and leadership development programmes through the TEVETA Skills Development Fund.

# LUBAMBE WOMEN COMMEMORATE INTERNATIONAL WOMEN'S DAY

On March 8, women at Lubambe joined thousands of other women around the globe to commemorate the 2020 International Women's Day under the theme: I am Generation Equality, Realising Women's Rights.

This year the mine nominated and recognised 10 women from various departments for their valuable contributions to the running of the mine. The women

each received a recognition certificate and cash of K500.

At an award giving ceremony held at the mine on 28 February, 2020, General Manager Operations Tony Davis expressed happiness that women also had a role to play in Lubambe operations. "Our women make Lubambe a better place to be," he said.

Speaking on behalf of Lubambe female employees,

Communications Manager Loyce Saili thanked management for employing more women over the years including the three in management positions. She noted that though women were a minority group at Lubambe and in the mining industry, management had over the last two years demonstrated its desire to engage more women in senior roles.



*Lubambe female employees after receiving certificates of recognition for their contribution to the mine*

The climax of a week-long activities was a march past from Lubengele bus stop to Konkola Stadium. At the

stadium, women from all walks of life exhibited various goods and performances to celebrate their day and showcased the

central role that they play in the development process of the country.



This year's commemoration was graced by former Chililabombwe District Commissioner Paul Mulenga. He called on all women to realise their rights Mr. Mulenga said that government had resolved to dismantle all patriarchal systems that disadvantaged women in Zambia.

He said government was committed to the transformation of all norms and values so that

both men and women were given equal value.

The District commissioner said the country's vision was to do away with all gender inequalities so that both men and women enjoyed their rights fully.

Celebrated on March 8 every year, International Women's Day is a day dedicated to honouring the achievements of women throughout history and all across

the globe, and is typically a day for women from all different backgrounds and cultures to band together to fight for gender parity and women's rights. It has a rich history dating back 108 years, when the first glimpse of it was in 1909 when the Socialist Party of America celebrated 15,000 women who protested long work hours, low pay, and the lack of voting rights in New York City.



*Lubambe women marching to Lubengele stadium*

# “PROTECT COMPANY PROPERTY,” LUBAMBE EMPLOYEES ADVISED

Lubambe Copper Mine has urged employees to safeguard company property and report all unethical behaviour as the company endeavours to maintain the highest level of integrity in its dealings with internal and external stakeholders at various levels.

Risk, Compliance and Security Manager Alinani Simukonda says the company has recorded a number of cases involving the removal of company property from the plant without authorisation.

He adds that it is the responsibility of all employees to safeguard company property by adhering to the Business Integrity and Ethics Policy which calls for compliance with Zambian and international laws, zero tolerance to bribery and corruption and reporting of all unethical behaviour.

Mr. Simukonda further adds that offences such as unethical business conduct, corruption, fraud, unauthorised removal of company or contractor property or explosives call for instant dismissal, in addition to being prosecuted.

He has advised employees to always look at the bigger picture and not be swayed by things that may have a negative effect on their income and careers.

Meanwhile, Mr. Simukonda has sent a stern warning to people who have been deceiving members of the public by masquerading as Lubambe Human Resource personnel. The conmen have been collecting money from unsuspecting members of the public in the guise of being HR recruitment personnel from Lubambe. Over 30 people last year, were duped and lost money in recruitment scams. One person was apprehended in connection with the recruitment scam and has been prosecuted.

“The company does not use word of mouth to advertise vacancies and it does not charge any money for interviews or job offers. All its external job adverts are advertised on accredited job sites such as <https://gozambiajobs.com/>,” Mr. Simukonda added.



*Security check at the mine gate.*



# LUBAMBE COMMEMORATES WORLD CSR DAY



*From left to right: DEBS representative Chrispin Mwewa, LCM CSR Manager Lomthunzi Mbewe, Kasapa Primary School Head Teacher Juliana Mpola and PTA Chairman Stewart Kaonga at Miyanda Primary School after handing over school uniforms to pupils on CSR day*

Companies, organisations and institutions world over celebrate World Corporate Social Responsibility (CSR) day annually on February 18. The observance of the day is meant to give back to communities and build a long-term track record of social impact that would strengthen relationships with community stakeholders.

This day also serves as an opportunity for companies to look back and gauge if they have been good corporate citizens in the communities they operate.

Lubambe Copper Mine joined the rest of the World to commemorate the World CSR day on February 18. The mine used the day to advance sustainable CSR and develop future generations by donating various school requisites to school children at Miyanda and Kasapa Primary Schools. The donated items included text books, wall paint and 144 pairs of school uniforms for boys all valued at over K100, 000.

For many, it might seem like a simple gesture but for the orphaned and vulnerable children of Konkola Primary School, it was a dream come true.

During the celebration, the words of a grade seven pupil, Priscilla Nama, touched the hearts of many, as she expressed gratitude to

Lubambe for the donation. She said the donation would help vulnerable children like her to attend school regularly.

Priscilla was saddened that some of her friends could not attend school because of lack of school necessities. She was happy that some orphaned children will now be able to attend school following Lubambe's gesture to help the vulnerable children.

Speaking at the event, Lubambe Community and Stakeholder Relations Manager, Lomthunzi Mbewe said the mine was committed to ensuring that school going children in communities surrounding the mine, had a conducive learning environment.

She said the mine had put education development as one of its strategic focus areas.

A representative of the District Education Board Secretary (DEBS) Mr. Chrispin Mwewa said government was delighted to have partners like Lubambe who were committed to contribute towards the uplifting of Zambia's education sector. Kasapa Primary School Head Teacher Juliana Mpola expressed appreciation to Lubambe for sustained assistance to the school. She said Lubambe's guaranteed support to education in the communities deserved commendation and emulation.

And Parents Teacher's Association (PTA) Chairperson Stewart Kaonga advised parents to ensure that the donation by Lubambe was not in vain by encouraging their children to always be in school. She said parents had a bigger role to play in ensuring that children appreciated the value of education and the efforts being made by cooperating partners like Lubambe.

In August last year, Lubambe donated 113 uniforms for vulnerable and orphaned school going girls at the same school.

# SUSTAINABLE AGRICULTURAL PROJECT FOR KONKOLA COMMUNITY LAUNCHED

Lubambe Copper Mine has initiated an agriculture project focusing on conservation farming as a means to uplift the standard of living for the communities around the mine.

As part of the project, the Mine, working in collaboration with Premier Greenview, a company engaged in agricultural consultancy, trained and empowered some Konkola community members with horticulture farming and financial literacy skills.

The aim of the project is to encourage participants to take up commercial farming and create profitable businesses and in turn scale up from the traditional subsistence maize farming they have been engaging in.

Lubambe's Community and Stakeholder Relations Manager Lomthunzi Mbewe said the agriculture project is premised on LCM's aim to contribute positively to Sustainable Development Goal (SDG) two, whose focus is on Zero Hunger, attainment of food security and promotion of sustainable agriculture. The pilot project is on a nine (9) hectare piece of land and its success will subsequently entail scaling the production for the various cash crops on an approximately 100-hectare piece of land.

The target groups are structured groups such as cooperatives and currently, over 30 people, from seven cooperative groups have been trained in agri-business and entrepreneurship.

"With the envisioned success of this pilot horticulture project, we intend to train more cooperatives in other modern farming methods like poultry management, and we will continue the training in fingerling production." Ms Mbewe said.

Sygenta Zambia - who have been working with the cooperatives on a demo plot will provide hands-on training and crop protection techniques to ensure safety of crops and sustainability of the project.

The crops currently under cultivation include: tomato seedlings, cabbage, Chinese cabbage, rape leaf, onions, mustard leaf, with plans to diversify to eggplants, chillies, garden eggs and ginger. The Mine has successfully linked the cooperative to MAISHA Zambia - the mine canteen contractor to create a viable supply chain of fresh vegetables delivered on a daily basis.



*Pruning of tomatoes by Tilitonse cooperative members in Konkola community*



*Field day for Tilitonse Cooperative Group*

Tilitonse cooperative Chairperson, Josephine Mwale said the agricultural project introduced by the mine has enabled members of the group to sustain their livelihoods as the farm yields are being sold to other community members and the Lubambe Mine canteen.

She said because of the success of this project, members of the cooperative are more knowledgeable and better equipped to apply the farming methods and financial literacy skills they have acquired. Ms. Mwale also expressed gratitude to Lubambe for coming up with inclusive and sustainable community projects.



# LUBAMBE RECEIVES 500 COOKSTOVES FROM CSR NETWORK OF ZAMBIA - DONATES THEM TO COMMUNITIES IN KONKOLA

Approximately 65% of Zambia's total land area is covered by forests. Unfortunately, the forests are rapidly vanishing. According to the Jesuit Centre for Theological Reflection, Zambia's deforestation rate is the highest in Africa and fifth globally, with an average loss of between 250,000 and 300,000 hectares of forest every year.

The Zambia Environmental Management Agency (ZEMA) – an independent environmental regulatory agency with the mandate to protect the environment and control pollution, has waged war on indiscriminate cutting of trees by punishing offenders.

It is hoped that this war will bear fruits by ending deforestation in Zambia.

Several other methods are being popularised in various communities where charcoal burning is common, including cities where people have been affected by the effects of load shedding.

Stopping deforestation is not an easy undertaking, it entails empowering people whose lives were sustained by burning charcoal with other sources of income.

The government has embarked on a campaign to encourage people to venture into sectors like agriculture as an alternative.

The Mine has joined the campaign against deforestation through community sensitisation on the ills of indiscriminate cutting of trees.

In April, the Mine through its CSR department distributed 500 cookstoves to households in communities around the mine in a bid to introduce modern cooking techniques and fight deforestation. The thermal efficient wood and biomass cookstoves were a donation from the Zambia Corporate Social Responsibility (CSR) Network to which Lubambe is affiliated.

Beneficiary, Chridah Machona said she was happy that she would no longer have challenges to clean her pots because the stoves produced less smoke and soot.

The thermal efficient wood and biomass cookstoves comprise an aluminium and steel stove body, fuel tray, bakelite handles, screws, screw driver and a user manual.

The cookstoves have an anti-rust Aluminium body, release 70% less smoke compared to the traditional open firewood methods of cooking. They also use twigs to light up, hence reducing the risk of indiscriminate cutting down of trees which is

rampant in communities around the mine as most households use charcoal for cooking.

The beneficiaries of the cookstoves in Kasapa and Konkola townships have been trained on the use of the modern cookstoves.

Handing over the stoves to beneficiaries, Lubambe Community and Stakeholder Relations Manager; Lomthunzi Mbewe thanked the CSR Network Zambia for being supportive to Lubambe's CSR work by sourcing the cookstoves from Greenway Appliances. She said the donation was a good gesture that would help to preserve indigenous trees that were being cut down for use in cooking. Ms Mbewe urged the beneficiaries of the stoves to ensure correct use in well-ventilated areas.

Purity Moobela, a beneficiary of one of the cookstoves thanked the mine for its continued effort in making sure that surrounding communities continued to benefit from the operations of the mine. Moobela says she will no longer struggle to find fire wood in the bush or buy charcoal which is very expensive as she now only needs a few twigs to light up her new stove.



*Official hand-over of cookstoves to community members in Kasapa and Konkola by Lubambe CSR Manager Lomthunzi Mbewe*

On the other hand, Civil society organisations, governmental and non-governmental organisations, and some international bodies, have embarked on educating people, especially in the rural communities, on the need to preserve trees.

Lubambe Copper Mine which sits on a tenement area of approximate-

ly 228sq kilometres has not been spared from deforestation. The mine land most of which is unexploited, has fallen prey to charcoal burners who indiscriminately cut trees for fire wood or charcoal which is sold in surrounding communities for a livelihood.



## PHILLIP LONGWE - WORKING TOWARDS ZERO FALL OF GROUND AT LUBAMBE

**M**eet Phillip Longwe, a Senior Geo-technical Engineer at Lubambe. He is a Registered Engineer (R. Eng.) from the Copperbelt University with a Degree in Mining Engineering, majoring in Rock Mechanics Engineering. He also holds a Strata Control Certificate from the South African Chamber of Mines and is currently studying for a Master's Degree in Mining Engineering with Atlantic International University.

He has over seven years of experience in open pit and underground mining, from a mining career that started with Barrick Gold Lumwana in 2013.

Phillip, has worked for Glencore Mopani Copper Mines in Mufulira under the Deeps project as a Rock Mechanics Engineer, Barrick Gold Lumwana as a Geotechnical Engineer and Glencore Mopani Copper Mines in Kitwe SOB and Synclinorium project as a Lead Rock Mechanics Engineer before Joining Lubambe in December 2017.

Phillip says, underground mining is an exciting venture as it presents a lot of challenges on a daily basis. He says he derives fulfillment from the many challenges he faces every day.

Since he joined Lubambe as a Strata Control Engineer, he says management has shown great commitment towards the attainment of safety for all.

Philip views Lubambe as a Company that provides opportunities for all.

As a priority, Phillip has worked to reduce fall of ground at Lubambe which he says is one of the 13 safety cardinal rules at Lubambe and a major hazard in underground mining operations. With the knowledge that a higher percentage of people have died around the world due to fall of ground, his target is zero fall of ground at Lubambe.

The realisation that successful implementation of systems that would reduce fall of ground needed concerted efforts, Phillip and his team introduced the use of welded mesh in the ore drives, apart from the split sets that were being used as a form support onto the rock so that it supports itself.

“The procurement of welded mesh was a huge investment but it was a move in the right direction as management’s goal was to create a safe working environment for its employees,” he said.

The introduction of welded mesh has resulted in the reduction in fall of ground from 21 in 2017 to 11 in 2018 and 6 in 2019. With these statistics, Phillip is confident that LCM is on its path to achieving zero fall of ground.



The mine has also introduced the use of Cable bolts to provide secondary reinforcement in the ore drives and, on the Brow, which are high-risk areas during stopping. He said working in such areas could easily lead to loss of life and equipment if ground support standards were not properly implemented.

To further show its commitment to safety, the mine acquired a licence to use Map 3D in 2018, a Geo-technical software which enables mining experts to undertake simulation and be able to assess the impact of mining activities in their operations and put corrective measures if need be. The mine is also licenced to use rock science tools aimed at giving proper geo-technical assessments.

Additionally, Lubambe, will in the near future implement a system for monitor-

ing of the entire surface area of the mine daily. This will include monitoring of the caving area and tailings dam facility in a bid to make sure any surface subsidence activity was monitored.

Phillip says as he ensures quality control by guaranteeing that mining designs were geo-technically sound before implementation, it was important that the mine continued to maximise safety and optimisation of production, adding that “there is no work that is so important that it can’t be done safely.”

He says due care should be exercised when handling mining equipment in order to minimise equipment damage and make the mine profitable as envisaged by the shareholders who wanted to transform Lubambe to becoming the best mine in Zambia.



*Ground support works in ramp 4 by Phillip Longwe*





Visit to Lubambe by ZCCM-IH, KCM and Mines Safety Department officials led by General Manager Projects Tommie Van Der Walt in February



The newly appointed medical personnel to man the new Lubambe Clinic at the official opening of the Clinic



Paramedic Sooi Lombard checking adherence to COVID-19 measures at the mine



Mine Superintendent Vincent Museye and JCHX Production Manager Dexter Mooya inspecting the 372ml shaft bottom breakthrough.





Mine Manager Alfred Ng'ambi hands a certificate of completion in Standard Remote-Control Systems to Tele – Remote Machine Operator Moses Chew, looking on is Mine Superintendent James Banda



CEC trains five Lubambe electrical personnel in 66Kv switching operations



Lubambe management team and Union representatives at Garden Court Hotel in Kitwe after signing the new collective agreement



Health personnel from Chililabombwe Health Office on a Lubambe sponsored COVID – 19 sensitisation programme on Kokoliko FM in Chingola.





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