

MINING FOR WISDOM IN KABWE, ZAMBIA

– A RADIO GUIDE

2024

INTRODUCTION

A new wave of mining to extract **transition minerals** is coming to Zambia. It could unlock an economic boom and a brighter future for all Zambians, especially the youth. But at what cost to the health of Zambians and their environment?

In Kabwe, a town devastated by lead and zinc mining, we go searching for answers to a key question: What are young residents of Kabwe thinking, saying and doing as the country prepares to mine for the new big thing: transition minerals?

BIG PICTURE

A startup backed by billionaire Bill Gates has [discovered](#) a massive deposit of high-grade copper in Zambia. The world needs Zambia's copper to help it transition to green energy. Copper is a transition mineral which is used to build electric vehicles, solar panels, and wind turbines. But Zambians have been here before.

Nearly a century ago, lead was the essential mineral used to build car batteries, ammunition, paint, and plumbing. Lead and zinc mining in Zambia drove the economy, created jobs and built towns like Kabwe. However, it came at a heavy cost.

In Kabwe, lead mining has left [a toxic legacy](#). The land, water, and air are so heavily polluted that experts have

dubbed Kabwe "a sacrifice zone." Lead poisoning has severely harmed the health of people in the town.

As the excitement grows around the discovery of new copper deposits, several key questions emerge: Can Zambia protect its people and the environment, while harnessing the economic potential of its copper reserves? Can Zambia avoid repeating the past mistakes in mining?

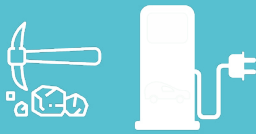
The global race for copper is underway. We want to hear from the experts: the residents of Kabwe, especially the youth. What can they teach us about mining's potential benefits and consequences? How can mining be done right?



DEFINITIONS

Transition Minerals:

Naturally occurring substances like copper, lithium, zinc and cobalt which are used to build wind turbines, solar panels, and electric vehicles.



Clean energy:

Power that is created from renewable sources like solar and wind, releasing little to no pollution.



Just Transition:

The process of saving the planet by moving towards clean energy, creating decent work, and protecting communities that once relied on an extractive economy.



Extractive Economy:

An economy based on removing natural resources like lead for sale and export.



Sacrifice Zones:

Places where people live with high levels of pollution and environmental hazards mostly caused by heavy industry. One of the worst sacrifice zones is in Kabwe, Zambia.



Environmental Remediation:

The process of removing pollution from the environment, such as soil, groundwater, or surface water, to protect human health and restore the environment.



DEFINITIONS

Artisanal Mining:

Small-scale, informal mining activities carried out by individuals or small groups, often without formal regulation or oversight.



Corporate Social Responsibility (CSR):

A business model in which companies integrate social and environmental concerns into their operations and stakeholder interactions.



Sustainable Development:

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs, balancing economic, environmental, and social factors.



Heavy Metals:

Toxic elements like lead, arsenic, and cadmium are found in mining areas. High concentrations can contaminate soil and water, posing severe health risks to humans and wildlife.



Bioaccumulation:

The process by which contaminants, such as lead from mining, build up in organisms over time, leading to increased health risks. This is a significant concern in Kabwe due to prolonged exposure to heavy metals.



Lead Poisoning:

A health condition caused by high levels of lead, leading to developmental and cognitive issues, particularly in children. In Kabwe, historical mining has caused severe lead contamination affecting residents' health.



RESEARCH

1. History of the town and the connection to mining

Mining activities in Kabwe began in 1902 with the discovery of significant lead and zinc deposits, and full-scale production started in 1906. Over the years, Kabwe developed into a bustling mining hub. However, this prosperity came at a high cost.

Kabwe's residents have suffered severe health [consequences](#) due to lead poisoning, with many studies highlighting high levels of lead in the blood of locals, especially children. This has resulted in long-term health issues, including cognitive and physical health problems. There are ongoing efforts to rehabilitate the contaminated sites, but the impact of [historical mining](#) activities continues to deeply affect the community.

Despite the rehabilitation efforts over the years, little has changed as the mine waste continues to poison children and adults. Some residents in need of income illegally mine the tailings without professional tools, protective gear and usually barefooted.

The environmental and health costs we see in [Kabwe](#) are not unique.

Similar exploitative practices have been used in many African mining towns. The history of extracting and exporting natural resources has often resulted in significant profits for foreign companies and local elites, with minimal benefits for the local communities.

As the global demand for transition minerals like copper and cobalt rises, Kabwe is presented with both an opportunity and a challenge. The revival of mining for these essential minerals could stimulate economic growth and development. However, it is crucial to learn from past mistakes to ensure that future mining activities are conducted responsibly, with adequate measures to protect the environment and the local population's health.

By understanding Kabwe's rich but troubled mining history, there is hope for a more sustainable and equitable mining future, leveraging the lessons learned to benefit the community and promote a healthier environment.



2. How has mining evolved

Mining has undergone significant changes globally and in Zambia over the last century.

In its early days, mining was characterised by small-scale operations with minimal technological input and a focus on easily accessible minerals.

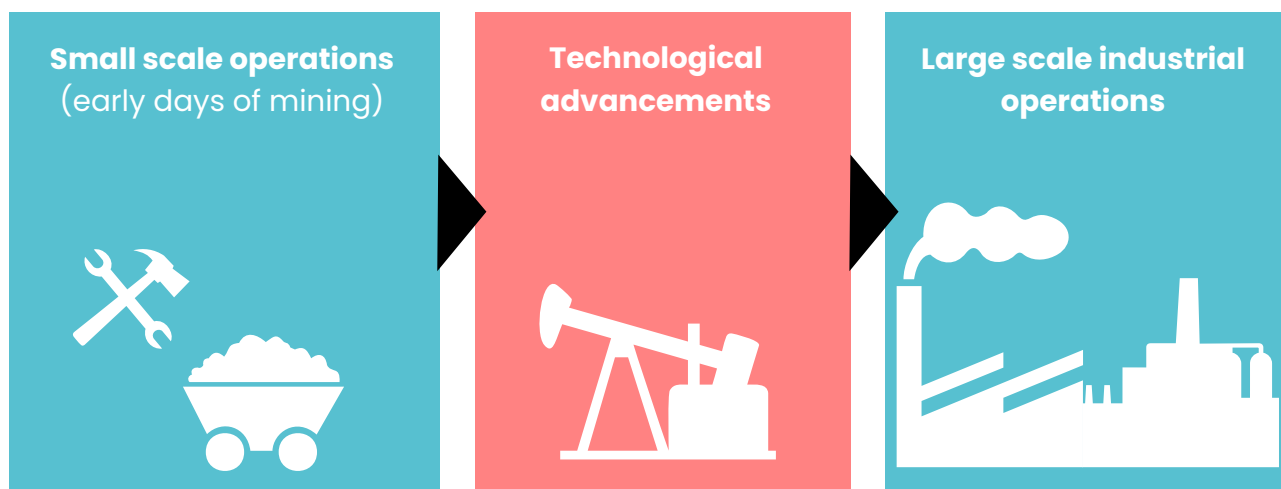
Over time, technological advancements have transformed mining into large-scale industrial operations, increasing efficiency and production capabilities.

Globally, the mining industry is trying to shift towards more sustainable practices, although challenges remain in balancing economic benefits with environmental impacts.

In Zambia, mining has been the backbone of the economy, with copper mining being the most significant contributor.

The country is one of the world's largest producers of copper, with the mining sector accounting for approximately 70% of its export earnings.

The introduction of modern mining techniques and equipment has improved productivity, but harm to the environment and socio-economic inequalities persist.



3. The New Green Market Demands

The transition to a green economy has increased demand for the minerals essential for clean energy technologies these are known as transition minerals. They include copper, cobalt, lithium, and rare earth elements, which are critical components in renewable energy systems, electric vehicles, and battery storage technologies. The global push for renewable energy has significantly boosted the demand for these minerals, reshaping the mining landscape.

Copper, for example, is essential for electrical wiring and renewable energy systems due to its excellent conductivity. Cobalt is a key component in lithium-ion batteries used in electric vehicles. Zinc plays a critical role in green technologies too, it is used to prevent rust in solar panels and wind turbines. As the world aims to reduce carbon emissions and combat climate change, the demand for these minerals is expected to continue rising, presenting both opportunities and challenges for countries with mining-dependent economies like Zambia.

4. Just Transition and Fairer Mining Models

The concept of a “just transition” is gaining traction in discussions around the future of mining. A just transition framework seeks to ensure that the shift towards a greener economy is fair and equitable, particularly for workers and communities traditionally dependent on fossil fuels and extractive industries. This involves creating new economic opportunities, providing retraining and education for workers, and implementing policies that protect the environment and public health.

In the mining context, a just transition means adopting mining models that prioritise the well-being of local communities, ensure fair wages and working conditions, and mitigate environmental impacts. It also involves greater community involvement in decision-making processes, transparency in operations, and sharing the benefits derived from mining activities. The goal is to create a more sustainable and inclusive mining sector that supports economic growth while safeguarding the environment and improving the quality of life for all involved.



A GUIDE TO PRODUCING A RADIO SHOW



Taking the pulse of Kabwe through the eyes of a young person who lives there and has mixed emotions about it.

1. CHOOSE A QUESTION(S)

- How can mining be done right?
- How can we help improve the health of young people who have been most affected by lead poisoning?
- How can young people benefit from mining?
- What can young people do to prevent mining from harming the environment?
- How can Zambia avoid repeating the mistakes of lead mining in Kabwe?
- How can the profits from mining benefit young Zambians?
- Should Zambia stop mining?
- Can you tell us about the pros and cons of the return of mining?
- What needs to be done to make the next generation of mining more just and fair?

2. CHOOSE SOMEONE TO INTERVIEW

Examples:

- Councillor – Yvonne Muntemba
- Former Councilor – Cornelius Katiki
- Mayor of Kabwe – Patrick Chishala
- Young Environmental Activists – George Kande
- Local sports players, the high school Eco club (teacher and students), former mineworkers, artisanal miners, mining companies, civil society, business leaders, the medical community, families impacted by lead poisoning, people involved with tourism

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Some other categories of people to consider:

- Expert
- Soccer player
- Eco club – teacher
- ZMERIP/ZEMA representative
- Former mineworkers

3. CHOOSE A FORMAT(S)

VOX POP (PRE-RECORDED)

What: Provide a snapshot of public opinion.

How: Before the show, take your recorder and interview as many people as you can. Use at least 5 different soundbites/sources in your final edited piece (don't forget to ask for their names).

Who: Interview a wide selection of community members of all ages. You can talk to environmental activists, former and current mineworkers, Eco club students and teachers, and families affected by lead mining.

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3. CHOOSE A FORMAT(S)

AUDIO PROFILE (PRE-RECORDED)



What: A first-person account of someone's experience, passion or journey.

How: Before the show, take your recorder and interview one person who has a personal connection to the topic. Prepare a list of questions to get them to tell you their story.

Who: Talk to football players about how playing on sand with lead pollution affects their health. Talk to a young person who illegally mines the tailings to support their family. Talk to an activist who has been monitoring pollution from mining activities over the years.

EXPERT INTERVIEW (LIVE OR PRE-RECORDED)



What: Invite a guest to join you on the show to answer your question, or take your recorder to interview them before the show. You want someone who can provide expert knowledge, analysis or experience with the topic. They may or may not have a personal connection.

How: Choose a guest, call them, brief them on your question, and ask if they have something to share

Who: Talk to someone who your listeners will want to hear from and who they will want to ask questions. For example: a mining activist, an environmental lawyer, a local community leader, or a politician.

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CALL-IN (LIVE)



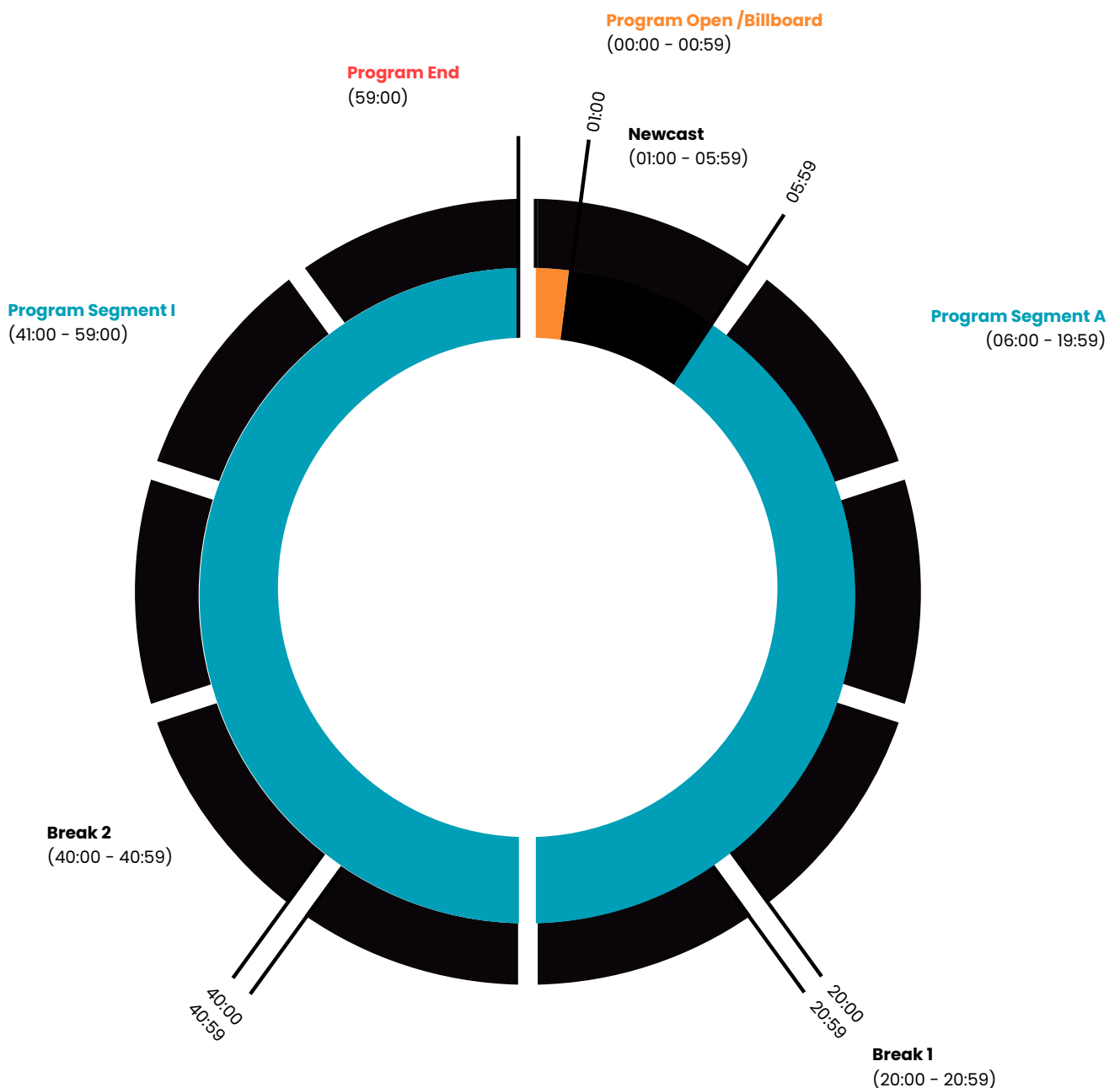
What: Invite listeners to call-in to share their opinion about a question.

How: Ask a question that listeners can and want to answer. Give them the studio number and invite them to call.

Who: You want to invite people from diverse groups to call in

3. PREPARE THE LINEUP

Decide on how much time to allocate to each segment/format. Decide on when each segment/format will be discussed/aired on the show. This is often called a show clock. (A sample of The Public Radio Exchange (PRX) show clock is below with 3 segments)



4. WRITE A SCRIPT



Segment A: [INTRODUCTION]

Host 1: It's just gone [TIME], and you're just in time for the [NAME OF SHOW] on [RADIO STATION]. My name is [NAME].

Host 2: And my name is [NAME]. On today's show, we will be talking about mining in Kabwe.

Host 3: That's right. And my name is [NAME]. And we are from the Kabwe Youth Network.

Host 1: In Kabwe, we all know someone affected by mining – maybe it's someone in your family, or it's your neighbour, or someone at Church.

Host 2: Lead mining has caused many health problems and it has damaged our environment.

Host 3: But that's not the end of the story. Because mining has also given us jobs and a better economy.

Host 1: So now, as Zambia looks to copper mining, we're asking: what do we, the youth, want this future to look like?

Host 2: And so we're opening up our lines to invite you to tell us your thoughts. What's your opinion? [share the contact

number or other ways in which people comment and participate in the show, for example: social media]

Host 3: Today, we explore the pros and cons of mining, look at the lessons from the past and question if there is another better way to mine and what that might look like.

Segment B: [VOX POP]

Host 1: But first, we went out to ask our community: How do they feel about the return of mining? Here's what they had to say.

PLAY VOX POP (≈5 minutes)

Segment C: [DISCUSSION]

Host 1: [Host reflects back on what people have said in the Vox pop, looking for patterns in opinions, concerns or hopes shared by people interviewed].

Host 2: [reaction]

Host 3: [reaction]

Segment D: [CALL IN]

Host 1: [Takes 1-3 callers on air OR reminds people to call in]

4. WRITE A SCRIPT



Host 2: *[reaction]*

Host 3: *[reaction]*

Segment E: [AUDIO-PROFILE]

Host 1: Kabwe has suffered severe health consequences due to lead poisoning, with many studies highlighting the high levels of lead in the blood of local children and adults. Stigma is a major issue for families and so many are reluctant to get tested.

Host 2: *[reaction]*

Host 3: *[reaction]*

Host 1: We spoke to **[name of the person who did audio-profile]**, working in **[give background]** for **[number of years]**, to understand how lead poisoning has affected them....

PLAY AUDIO-PROFILE

Segment F: [DISCUSSION]

Host 1: [Host comments on the audio profile to provide closure and transition]

Host 2: *[reaction]*

Host 3: *[reaction]*

Segment G: [CALL IN]

Host 1: [Takes 1-3 callers on air OR reminds people to call in]

Host 2: *[reaction]*

Host 3: *[reaction]*

Segment H: [INTERVIEW – LIVE OR PRERECORDED]

Host 1: The transition to a green economy has led to an increased demand for minerals essential for clean energy technologies, known as transition minerals. These include copper, cobalt, lithium, and rare earth elements, which are critical components in renewable energy systems, electric vehicles, and battery storage technologies. The global push for renewable energy has significantly boosted the demand for these minerals, reshaping the mining landscape. And so we invited an expert to talk to us about the future of mining in Zambia.

Host 2: We are joined by **[name of the person]**, working in **[give background]** for **[number of years]**, to understand the future of mining in Zambia..

PLAY INTERVIEW OR CONDUCT THE INTERVIEW LIVE

4. WRITE A SCRIPT



Segment I: [DISCUSSION]

Host 1: [Host comments on the audio profile to provide closure and transition]

Host 2: [reaction]

Host 3: [reaction]

Segment J: [CALL IN]

Host 1: [Takes 1-3 callers on air OR reminds people to call in]

Host 2: [reaction]

Host 3: [reaction]

Segment K: [WRAP UP WITH A DISCUSSION]

Host 1: What do you think we learnt today?

Host 2: [reaction]

Host 3: [reaction]

Host 1: Thank you for joining the Kabwe Youth Network on the show today. From me, [NAME]

Host 2: And I'm [NAME]. Thank you for all your calls and contributions to the show..

Host 3: And from me [NAME]. We're looking forward to joining you again.

