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The Job Multiplier Effect

How one formal mining job supports about ten across the economy, and why mining is one of the strongest tools for creating well-paid local work

SUMMARY

- The developing world faces a jobs gap measured in hundreds of millions. In Uganda, about 4 million young people have no job, school or training, and most people who do work have no contract and earn far below a living wage.
- Formal mining pays above a living wage even at entry level, lasts for decades, builds careers and makes dangerous hand-dug work safe.
- Each job at a mine supports about six more in its supply chain, and about ten in all once wages are spent locally. The ring of jobs builds over several years.
- We hold every operation to a living-wage standard, count only jobs that are real, and introduce machinery to grow output rather than to replace the people already employed.

Talent is evenly distributed, and opportunity is not

Over the next 10 to 15 years, about 1.2 billion young people in developing countries will reach working age. On current projections, only about 400 million jobs will be created for them, according to the World Bank.[1] That leaves a gap of roughly 800 million. When young people have nothing to do, it does not stay an economic statistic. It becomes a question of family survival and national stability.

Uganda carries this problem at full scale. It is one of the youngest countries in the world, and about 700,000 young people reach working age every year.[2] Its 2024 census found that 43 percent of people aged 15 to 24, about 4.2 million young Ugandans, had no job and were not in school or training.[3] About three in four workers are in vulnerable employment, working for themselves or for family with no formal wage or contract.[4] The median informal employee earns about UGX 168,000 a month, roughly a fifth of the living wage a rural family needs.[5]

4.2M	~3 in 4	~22%
Young Ugandans (15–24) with no job, school or training[3]	Ugandan workers with no formal wage or contract[4]	Typical informal pay as a share of a rural living wage in Uganda[5]

The answer starts with education, and programs like BYU-Pathway Worldwide are making university education affordable in places where it never was. But education needs a destination. Graduates need jobs at home that pay enough to build a life on, or the most qualified leave first.

Jobs at scale grow around an anchor industry

In a developing economy, jobs at scale rarely arrive one small business at a time. They grow around an anchor industry that employs hundreds or thousands of people in one place, for years, and that a local economy builds itself around. We call this an economic hub. Research on job creation in developing economies points to three kinds of hub: mining and minerals, infrastructure and energy, and agriculture and agribusiness.[6]

The three work in sequence. A mine needs a road, so infrastructure follows. Processing the ore needs reliable power, so energy follows. Decades later, rehabilitated mine land can return to farming. Mining is often the first of the three to arrive, and it pulls the other two behind it.

A formal mining job changes what work means

Mining fits the problem precisely, because of what it offers the person doing the work.

It pays above a living wage. Where mining is formal, the legal minimum wage for the sector sits well above the living wage. In Tanzania it is about 140 percent of a rural living wage, in Zimbabwe about 135 percent and in Mozambique about 169 percent.[7] Across 23 countries, the World Gold Council found that wages at its members' mines averaged about six times the national average.[8]

It lasts. A well-run mine can employ people for 20 to 30 years, with pay that arrives on a schedule a family can plan around and a bank can lend against.

It builds careers. People start as laborers and operators and grow into equipment operators, mechanics, electricians, lab technicians, surveyors and supervisors, with training done on site.

It makes dangerous work safe. More than 44 million people in 80 countries mine by hand, and about 90 percent of that activity is informal.[9] In Uganda, between 400,000 and 600,000 people work this way. Formalizing that work brings contracts, training, safety equipment and a wage that arrives every month.

The job multiplier: every job at the mine creates more around it

The most important property of a mine for job creation is what happens outside its gate. The World Gold Council, working with the consultancy Steward Redqueen, measured 5.9 jobs in the supply chain for every direct job at its members' mines, and about 10.5 once the spending of wage earners in the local economy is included.[8]

In practice, the ring forms in layers. Closest to the mine are suppliers and contractors: drilling, trucking, electrical work, welding, laboratory services, building materials and catering. Beyond them are the businesses that grow because workers are paid regularly: shops, builders, tailors, restaurants, transport, housing and schools. Roads, power lines and clinics that arrive with the mine serve the whole community.

The ring does not appear overnight. In our planning models, the economy-wide effect starts at roughly four jobs for each one at the mine and rises over five to ten years as suppliers and services establish themselves. We plan on about ten in total for a mature hub, consistent with the published benchmark, and treat lower ratios as the honest expectation in the early years.

> **How we count.** The multiplier figures above come from gold mining in other countries and are applied by analogy. Measuring the real ratio at each Ugandan operation is part of our work. Moving an artisanal miner onto a formal contract and a living wage counts as a job created, because occasional work is not a job and steady pay is. Bringing an already-formal operation into our network does not count, unless it expands.

Mechanization should grow output, not cut people

A fair question about any mining jobs plan is whether machines will eventually replace the workers. Across the global mining industry, productivity gains have reduced headcount at roughly 3 percent a year.[10] That is a slow attrition, and we plan around it.

Our approach is to introduce machinery to absorb growth in output, holding headcount steady while equipment takes on the expansion. As one site matures, its experienced workers can move along the same mineral corridor to help build the next site, so skills are carried forward rather than released. As long as the system keeps adding operations faster than about 3 percent a year, net employment keeps rising. Research on mechanization points the same way: machines often complement manual labor rather than replacing it.[11]

A living wage is the floor, not the goal

Every direct job in our models pays at or above the local living wage, and we hold operators and their major suppliers to that standard. This is a commitment, and it is also good business. Well-paid, trained workers stay longer, work more safely and spend their wages locally, which is what turns a mine into a hub.

The aspiration that follows from this is large. If roughly 100,000 people work directly in mining and mineral processing in Uganda, and each of those jobs supports about ten in all, the result is about one million jobs, roughly a quarter of the young Ugandans who have nothing to do today. It is a long-term aspiration, and it is built one operation at a time. Our fourth paper describes the system that makes it possible.

About Horizon 35

Horizon 35 is a systems integrator for mining and mineral processing in developing countries. We bring strategy, government relations, technology, partners and capital together around proven operators to create formal, well-paid local jobs and to help ore-rich countries keep more of the value of what they mine. Our goal in Uganda is one million jobs in five to ten years. horizon35.com · mitch@horizon35.com

Sources

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