

When the Blyvooruitzicht gold mine was abandoned, so were hundreds of miners and toxic dumps, writes Mark Olalde

THE white, sandy soil stretched into the distance like a beach on the cover of a travel magazine. A few clouds floated past the warm sun. It was a beautiful day for exploring the No 6 slimes dam at the abandoned Blyvooruitzicht gold mine.

But then the wind began to turn, kicking up fine dust. Full of uranium and other heavy metals, the grit forced its way into coughing lungs and watering eyes. Not far down the road, in Blyvoor village, the dust advanced towards pupils gathered in a school's grounds.

Nearby, a group of unemployed former miners opened a meeting, oblivious to the cloud of toxins as they discussed imminent water and electricity shut-offs. A few streets over on the abandoned mine itself, illegal miners, or zama zamas, from Lesotho ignored the pollution, focusing on scraping a living out of the dirt.

Since 1886, when George Harrison discovered gold in the Witwatersrand, mining has been the force behind Joburg's growth from the world's largest boomtown into a metropolitan area of more than 10 million people. Now citizens of eGoli – the Place of Gold – have to coexist with mines and waste facilities in the world's largest gold and uranium basin while adapting to a rapidly shrinking industry.

"Mining is part of South Africa's psychology. People say it's in our DNA, but mining is – by definition – unsustainable," said Mariette Liefkerink, chief executive officer of the Federation for a Sustainable Development and a vocal activist in the world of gold mines.

The abandoned Blyvooruitzicht mine lies a few kilometres south of Carletonville. The mine opened in 1937, but labour disputes, disappearing reserves and a sluggish market shuttered it. First came business rescue in 2011, then an attempted sale by the majority shareholder DRDGOLD in 2012 and finally liquidation while under the guidance of the potential buyer, Village Main Reef, in 2013.

Neither company claims to own the mine or acknowledges liability. The Department of Mineral Resources has yet to step in to ease the situation.

"Some of our people are struggling to get employment. The other ones are being hit by age because most of the mining companies don't employ you if you're over 45 years of age," said a member of the Blyvoor community committee, who asked not to be named because zama zamas and others benefiting from Blyvooruitzicht's closure have threatened him for speaking out.

Retrenched from the mine's human resources department when the mine was liquidated, he is waiting for R250 000 for unpaid service.

"There are so many people in my position – 1 700 people were affected



SCRAPING A LIVING: Illegal miners work on an abandoned mine, risking their health by working through toxic waste.

PICTURE: PABALLO THEKISO

# Dumped, damned and desperate

by the liquidation. They never got anything," he said.

Many of them survive on food donations from the Dutch Reformed Church: a free meal for schoolchildren, R2 for adults.

"As the gold becomes less and less, it becomes less and less economically viable for major corporations and a big, capital-intensive, expensive operation to extract that gold," said David van Wyk, of the Bench Marks Foundation.

"A lot of mines have scaled down, a lot have closed down, a lot have been abandoned, and a lot of workers have been retrenched."

In a 2007 revised environmental management programme, the Blyvooruitzicht Gold Mining Company Limited wrote: "Gold mining has played an important role in the development of the town's economy and as a result the industries in the area are, with only a few exceptions, associated with mining activities."

During the short period Village worked the mine, it halved the workforce. When the mine was liquidated, the remaining workforce was disbanded.

There were few non-mining jobs in Blyvoor, and most residents did not have the means to move to other areas.

Job security was not the residents' only concern. Living close to a gold mine directly affected health and environmental well-being. On numerous occasions, pipes and slimes dams full of toxic and radioactive material burst or were washed away, sending mine waste into parts of Carletonville.

An August 2005 report to the National Nuclear Regulator noted: "The previous acting (radiation protection officer) did not submit (regulator) for the previous six months. "The (acting officer) did not conduct personal dose measurements for the past 12 months."

DRDGOLD's chief executive, Niel Pretorius, said it would be difficult to convince the company to put money back into the mine or the community. Perhaps the state of the mine was the fault of the major unions, the liquidator or the parties who bought the stripped assets from the liquidator, he said.

"I'm going to find it very, very hard, very, very difficult, to get a mandate from my board and my shareholders, if I were seeking a mandate to this effect, to go and put 50, 100, 150 million rand into this mine," he said.

Marius Saaiman, chief executive officer of Village, said although the company ran the mine for a time it had not owned Blyvooruitzicht, nor had it controlled the trust fund intended for environmental rehabilitation.

An estimated 11 000 people live in several villages and informal settlements on and around Blyvooruit-

zicht, not far from the dust-generating No 6 slimes dam. Children living in one of the informal settlements swim in water that pools on the footprint of another slimes dam.

When the mine was operating at high capacity in the early 2000s, it piled 200 000 tons of waste a month on to its tailings dumps.

The products of more than a century of intense mining, 270 similarly massive tailings piles, mine dumps and slimes dams are scattered in and around Joburg.

The National Nuclear Regulator classifies these tailings dams as "nuclear installations".

"This is a slow onset disaster," Liefkerink said.

A 2011 study found an estimated 1.6 million people – a number surely growing with the influx of migrants – living in Gauteng's informal settlements, many on or near toxic and radioactive mine residue areas. These areas are often referred to as "badlands" because they are unsuitable for most uses.

They cover 321km<sup>2</sup>.

"No one else would want that land," Van Wyk said.

"The land is radioactive. The land is full of poison. The land is very dangerous to live on, and so the

poorest of the poor in South Africa find themselves on that land."

Van Wyk's work as an activist and researcher in the field of corporate social responsibility takes him to areas affected by mining activities and legacies.

One such place is Riverlea, a largely coloured, low-income housing community bordered on the north and south by mine dumps.

"If you look at a community like Riverlea, it's surrounded by mines. If you look at a community like Soweto, it's surrounded by mines. But none of the people who lived there actually worked in the mines because mines were supplied by migrant labour," Van Wyk said.

Residents say the partially remediated tailings piles surrounding them are the cause of respiratory issues, skin and eye irritation and other ailments.

However, there is a lack of epidemiological studies into the effect of mining on health in communities, so litigation is nearly impossible. The use of paraffin, coal fires and asbestos paint confuses the picture with regard to the cause of many sicknesses in such areas.

Charles van der Merwe, a Riverlea resident and member of the Mining and Environmental Justice Community Network of South Africa, has gone door to door with questionnaires to compile a health study.

He grew up breathing in the dust from these dumps and said it became a way of life.

"You can put tape on the doors. The dust will still come in. You don't

know where, but it will still come in," he said. "Here in Riverlea, we're so used to it. It's our dusty time."

DRDGOLD blames the town's seemingly high rates of respiratory issues on the use of coal stoves, although few houses continue to use them. The company bought 500 gas stoves two years ago to distribute to the community to remove the need for open-fire stoves, but residents say the gas refills are too expensive for them.

"I was rather disappointed that it was received with so little enthusiasm, but they're still there and, you know, we're trying to engage," Pretorius said.

Reminding of the sand dump north of the community was expected to finish in a year, and revegetating of the dumps in the south was progressing rapidly, Pretorius said.

Central Rand Gold Limited also owns mines in the area. One of its operations has been abandoned – except for the zama zamas working there – for some time.

According to Van Wyk and residents, Central Rand Gold, a junior mining company, offered the community a paltry sum every month if residents would rehabilitate the mine for it. The amount said to have been offered would barely have covered a few days' work and there was no closure plan.

Multiple attempts were made to contact Central Rand Gold, without success.

"This is the legacy of mining," Liefkerink said.

"It looks glamorous. It glitters when you see it on the catwalks. It's a wonderful metal. But it has a price, and the price we pay, especially the poor communities.

"Gold is dirty."

■ *Olalde is a young American journalist who cut his teeth at The Star as an intern from the Medill School of Journalism at Chicago's Northwestern University. This year he returned to South Africa, sponsored by the Fund for Investigative Journalism and hosted by Wits University's Centre for Sustainability in Mining and Industry, to investigate the phenomenon of illegal miners or zama zamas for The Sunday Independent. This is what he found.*

## Asbestos claimants fall prey to crooks

MPHO LEKGETHO

UNSCRUPULOUS fly-by-night agencies are preying on people with asbestosis in the Northern Cape, promising to help them get compensation, only to make off with their papers and money. David Morubisi, 89, from Wrenchville in Kuruman, was duped – and is struggling to apply for compensation without his documentation.

Phemelo Magabanyane, a professional palliative care nursing sister with the Kgalagadi Relief Trust, which is helping people in Kuruman become aware of asbestosis and the procedures for claiming, said the NGO had even resorted to radio announcements to make people aware of the scams.

"Not all the companies and people helping are scammers – some companies are really assisting, but some are charging too much to help.

"We urge the community to report incidents where they have been scammed.

"Our radio announcements urge the community to stop claiming compensation through just anyone."

Another worrying trend was that people were more concerned about getting compensation than about looking after their health, Magabanyane said.

"Asbestosis is serious. We have asbestosis awareness campaigns and we urge everyone to take part in our asbestos dialogues so we can win the battle.

"Asbestos is everywhere and we are all affected. We lose family members almost every day and this is not good at all."

Morubisi said he found out last year that he had asbestosis when his son took him to a doctor because he was having constant chest pains.

X-rays confirmed the diagnosis. "I worked in a mine called Black Rock from the age of 23. Today I am suffering from that time in my life," Morubisi said.

"Like other people I also went to claim my money since it was announced that we can be compensated. However, the process has been very long for me as all my documents went missing with the scammer.

"He took all my things and never came back to give me a report from the offices in Gauteng."

Morubisi says he hopes the Asbestos Trust Relief will help him to get compensation. He would use the money to improve his health.

The Medical Bureau for Occupational Disease, funded by UNAIDS in partnership with the Department of Health, visited the community and began registering all former miners.

Because of the high turnout, the department could register only 100 people that day, and it gave priority to senior citizens.

Looseboy Tumelo, who is in his 60s, borrowed money to travel the 60km to be registered – but was not included among the 100.

Registration has also been arranged for families whose loved ones have died since working on mines. They need documentation, however. – Health-e News

# The dirt on living in mining paradise: It's purgatory for communities

KERRY CULLINAN

AS mineworkers with silicosis go to court tomorrow for permission to launch a class-action suit against the gold mines that have ruined their health, other communities are also struggling with the effects of mining.

Radioactive uranium levels on parts of the West Rand are as high as those at Chernobyl after the 1986 nuclear disaster, while the air in eMalahleni (Witbank) in Mpumalanga is among the dirtiest in the world. Cancer, kidney disease, asthma and neurological problems are some of the human costs of the polluted air, contaminated water and poisoned soil.

Coal mining and the coal-burning power stations are among the worst culprits. These are highly concentrated in eMalahleni, which Greenpeace Africa's senior climate and energy campaign manager Melita Steele describes as an "environmental crime scene".

High levels of carbon dioxide, sulphur dioxide and particulate matter – such as dust, soot and

smoke – in the air, heavy metals in the soil and acidic groundwater have all been linked to the 22 collieries and 11 coal-burning power stations in a 40km radius in eMalahleni.

A 2011 CSIR study of the air pollution concluded that there was "a likely risk of neurological effects" if people were consistently exposed to the level of manganese measured.

Two years later, a team of EU scientists studying air emissions found levels of heavy metals chromium and barium to be so high that their instruments could not measure them accurately. They concluded the air was among "the dirtiest in the world".

"Such high levels of air pollution create particularly high risks for health impacts like respiratory problems (including asthma), cancer, heart disease, strokes and even death," says Steele.

Radiation levels at Tudor Shaft, an informal settlement on the West Rand, were between 8 and 15 millisievert a year (mSv/year). Safe ranges are below 1mSv/year. In areas contaminated by Chernobyl,



COAL-FACE OF RISK: A coal-washing station near eMalahleni, an area so polluted that Greenpeace Africa says it is an environmental crime scene.

PICTURE: MUJAHID SAFODIEN/GREENPEACE

the level was 9mSv/a. Although the Mogale City municipality is moving Tudor Shaft, communities nearby are at risk as uranium particles can be blown as far as 20km.

The National Environmental

Management Act says "the costs of remedying pollution... and... health effects and of preventing... further ... damage... must be paid for by those responsible".

Yet the government seems

unable or unwilling to enforce this legislation to compel mining companies to clean up. In some cases, it is hamstrung by companies' threats to cut jobs, in others by powerful vested interests in mining companies.

Although minimum emission standards came into force in April, the government has allowed the country's two biggest polluters, Eskom and Sasol, to postpone their adherence to these standards.

Melissa Fourie, executive director of the Centre for Environmental Rights, says that while the law "requires the state to promote the sustainable development of mineral resources, the Department of Mineral Resources chooses to interpret (its) mandate as promoting mining".

One consequence of the department's short-term, mine-friendly approach is that there aren't any no-go areas for mining, with rights being granted in sensitive ecosystems, strategic water areas or too close to communities, says Fourie.

"The first thing that needs to happen is that the responsible authorities should use their powers to enforce environmental laws. If

there was at least a realistic threat of violations being detected and enforcement action being taken, this would have a significant impact on the whole industry."

John Capel, who heads the Bench Marks Foundation, a church-based organisation that monitors corporations' performance, describes the government as being "conflicted".

"The Department of Mineral Resources has promoted black economic empowerment, particularly in coal mining, and there are a lot of important political players in the sector, such as Patrice Motsepe, Cyril Ramaphosa and Tokyo Sexwale," Capel says.

"There is a revolving door between politicians and the mining houses, with all the former cabinet ministers sitting on the boards of mining companies."

The Department of Mineral Resources is responsible for promoting mining and for regulating the environmental impact of mining, unlike other industries whose environmental impact assessments (EIA) are overseen by the Department of Environmental Affairs.

"That the department authorises the EIAs creates even more conflict, because its main aim is to promote investment in mining."

Air quality and emissions are supposed to be measured by municipalities, with oversight from the Department of Environmental Affairs and provinces, yet many lack the capacity to do this.

"We regularly hear about monitoring equipment being damaged, with municipalities complaining that they do not have the budget to repair it," says Fourie.

Bench Marks has a network of more than 30 community monitors in affected areas. Their reports are filled with stories about people with respiratory problems – asthma, black lung disease, and sinus.

There are also more than 4 700 abandoned mines, many leaking acid and heavy metals into the soil and groundwater.

In a report on coal last year, Bench Marks said the proposed national health insurance scheme would be "overburdened by corporations' externalisation of health costs". – Health-e News