

Water and mines: Context and new knowledge

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Sekhukhune Environmental Justice Network



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Contents

1. Who are we	2
<hr/>	
2. Introducing our change project?	3
<hr/>	
3. What is the context? What has already happened?	5
<hr/>	
4. Building a knowledge network	7
<hr/>	
5. Learning from new knowledge	10
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Who are we?

SEJN (Sekhukhune Environmental Justice Network) is a community-based environmental CSO, active in the Sekhukhune area. It is run by community activists, who fight for environmental justice in their communities. Tokelo Mahlakoane, Mmathapelo Thobejane and Eustine Matsepane from SEJN participated in this Changing Practice Course.



Introducing our Change Project

Our project is situated in the Sekhukhune area, involving the rural Maotsi communities. These communities consist of mainly subsistence farmers, who are dependent on their livestock, which are drinking from the river Motse. The communities have been badly affected by the pollution of this river, caused by the nearby mine. Our project sets out to make the mine aware of these effects of their industrial practice, and the concerns of the community. We need to collect good arguments about this situation. We also intend



to campaign in the community to make them aware of the dangers of using the polluted water from the stream and of the importance of always boiling the water before using it.

In the meantime, the community of Modimolle has been drinking water from the spring (sediba) provided by the municipality, but it ran dry and was not fixed. The Twickenham mine, which opened in 2002, seems to play a role in the drying up of a newer borehole. Our project wants to get answers from the municipality and the mines about the water flow and quality from the boreholes and see what the municipality can do for this community.

What are the main questions guiding our action research?

Our project focuses on two different topics, and therefore has two different sets of research questions. Mmathapelo Thobejane will look into the pollution of the river by the mine and the mine's compliance to laws. She has identified these research questions:

1. What does the EIA laws say about amounts of discharge? This is the license that was given to the mine by DWS to ensure the amount of discharge.
2. Are the mines compliant according to NEMA laws?
3. What must be done to stop the pollution? What can the mines do to comply?
4. Which chemicals or metals are dangerous for animal consumption?
5. How can SEJN engage with the mine and the community? What options are there for engaging with the mine?

Where can SEJN get funding to raise awareness about water pollution?

Eustine Matsepane and Tokelo Mahlakoane are focusing on the situation of the boreholes that dry up, and want to investigate the municipality's and the mine's roles in this. These are the research questions they came up with:

1. Why do the boreholes in our community run dry?
2. Is the water provided to our community clean; what is the water quality?
3. Can we get any help from the municipality?
4. What happens when the pipes that got broken when they worked on the tar road in our community, do not get fixed?

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What is the context? What has already happened?



Magakala is made up of the following villages under Magadimane Ntweng Traditional authority: Ditwebeleng, Modimolle, Dithabaneng, Morapaneng and Makgaake. Traditional crops are sorghum, maize, millet, pumpkin gourds, cow peas, njogu beans and ground nuts. Traditional domestic animals were separated into herded and non-herded animals. Men primarily concerned themselves with cattle, goats, sheep and donkeys and women tended to fowl and pigs. Livestock is business to communities: they sell livestock to take care of their family, for ceremonies and to pay for studies. The communities survived on subsistence agriculture.

Things started to change when mining companies arrived and discovered minerals on their ancestral land. In 2002 when the land was grabbed, people lost their farming land. The mine started to drill underground and the people became afraid of drinking the water from the river, because of the pollution that the mine discharges into the main river Motse. In 2014 more and more cattle started dying: over 15 cattle and 30 goats were found dead at the mine stream, which is polluted, and next to the graveyard. Some of the kraals have been shut down due to this. When the livestock owners/farmers tried to engage with the mine, they were ignored. Farmers from the five villages didn't know what to do; they were never told that the results of the mining would kill their livestock.

Farmers now have to buy water for their cattle and this adds financial stress to their families. They pay R250 for 1000 liters a month. They also have to buy medicine for their livestock, as they are sick from the contaminated water. The farmers have had enough and want to know how the mine is going to compensate them, as this is a clear result of their operations.

Through SEJN's involvement in environmental issues, especially dealing with water pollution, the livestock owners now see the injustices the mine inflicted on them. They only had the stream as source of water, and that has now been polluted by the mine. The farmers need the mine to help them with a grazing camp, clean water and to purify the discharge water that comes from their premises. SEJN can help to make the mine aware of the concerns of the communities, and to educate the communities on safe water use.

SEJN is now engaging with the government, Department of Water and Sanitation, Department of Agriculture and Department of Environmental Affairs and we are also trying to bring the mine on board.

The situation in Modimolle started when the borehole, or spring (sebida), that the municipality provided dried up. The community reported it to the municipality, but nothing was done about it. The municipality did install street taps in 2000. When in 2002 the mine Twickenham opened, the new borehole also started to produce less water. At times, it was only giving water once a week. The community then mobilised and negotiated with the mine. The mine promised to take care of it and to provide water for the community – and they drilled another borehole. As a result, there was now water twice a week. But that didn't last long, and the water appeared less frequently again. As the community started to suffer from this lack of water, we spoke to the man who pumped the water. He explained that the dam is too small to supply the whole community at the same time. It appears the municipality had this man operate the pumps, but did not register or employ him at all.

The low water levels are caused by shortage of river flow, which is caused by blasting by the mines, which affects underground water levels. Acid Mine Drainage is dangerous, because it flows with polluted water from the mining area.

So, the community still suffers as they rely on the water for their farming; their business and income are crumbling away.

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Building a knowledge network

Government

Department of Water and Sanitation (Sekhukhune District), Mr. Sekoati is the water quality manager who tests the water in the district, including our community. He monitors boreholes and river water quality and flow.

Mmathapelo describes that she learned that the water in our area is very salty, and it is getting scarce now, especially in Fetakgomo Greater Tubatse Municipality. The water pollution is high due to the dumping of disposable nappies and the rise of mining activities in our municipality. Life is now difficult, because most of the communities rely on the river water for bathing, washing, watering crops, drinking and livestock. Animals die after drinking and people get skin rashes after bathing and diarrhea if they don't boil the river water first. The industries don't comply with the NEMA regulations, but keep discharging more waste into our area.

Tokelo also spoke to Lhubimba who did water testing around our village (but the results are not yet in). She said that the low level of flow of the Motse River is caused by climate change, shortage of rainfall and that evaporation is higher than normal. The blasting from the mine also affects the underground water and dries up the boreholes.

NGOs/CSOs

Centre for Environmental Rights (CER) was very helpful to us, as we needed information on environmental rights, especially the National Water Act (NWA), the National Environmental Management Act (NEMA), Environmental Impact Assessments and Water Use Licenses. We also needed information on how to access documents on water use licenses and compliance and on how to build an argument with the companies that pollute our natural waters. For instance, how do we access information using PAIA request forms?

Mmathapelo reports that she has learned many things from CER: how to write complaints letters, some knowledge on environmental rights, how to access information from government and companies using PAIA requests, how to build arguments using NEMA, NWA and SA constitution, how to make a good speech and good presentations, how to build a case and gather evidence. She feels it is important to learn about the laws, because if you don't know your rights, you will not be able to get what you want. Now we know about the rights to protest and to access information, so it's easier for us to get that.

Benchmarks Foundation, Mr Joseph Magobe and his organisation have done some research in our communities and they have a monitoring school, which taught us how to effectively monitor the compliance of companies and the industry and how to put out alternative voices on what constitutes good corporate conduct. They work hard and have strong media advocacy campaign that receives good coverage every year. This alerts the country on what's happening on communities. We've learned how to write community stories and how to produce your own community newsletters.

Mmathapelo learned that it is important to get the community's stories from the communities themselves. Telling their experiences can give them power. We have now produced our provincial newsletter, called 'Tshedomoshu' (Alerts).

Media sources and documents

Cooperate governance and traditional affairs: the Sekhukhune District Municipality states that there are water challenges and an absence of effective water treatment that leads to poor health and water quality. However, they have plans to respond to these water challenges, which they acknowledge do not only result from technical problems, but also from problems and challenges related to decision-making, institutional and governance issues.

On water and health, it states that the community should be a cholera-free zone by consistently providing clean drinking water, all systems should comply with occupational health standards and the community should be educated on water safety and the hazards of impure water.

"River of shit, chemicals, metals flow through our land", by Siphso Kings, in Mail & Guardian. This article describes how the Olifants River is dirty and polluted by mines' operating and how the government does nothing about it. There is data collected, but it just sits in offices and is not being monitored. According to researchers from University of Venda and Rhodes University, the mines' pollution presents itself in elevated levels of heavy metals, which are dangerous when they accumulate in ecosystems and living organisms. Sewerage spills also play a role in the pollution of the river. Mmathapelo fully agrees with this, as she sees the same effects in her community, where livestock is dying almost every week from water polluted by the mines.

Article in the Low Velder, speaks about the pollution of water from the tailing dam that destroyed a farm and killed the fish. This happened after long rains and the water from the tailing dam carried minerals and metals to the river. Also, acid water was being discharged into the Selati River, which caused harm to the farm. This also happens in our communities, says Mmathapelo, when crops suffer after discharge of polluted water flow into the gardens.

Article in The Citizen, tells a story of the contamination of rivers by sewage, industrial refuse, acid mine drainage, weed killer and insecticides, which creates serious risks to South African food production, agricultural exports and human health. High levels of fecal pollution in the rivers comes from inadequate waste water treatment.

This is the experience that the communities of South Africa face every day.

"Gasland", documentary by Josh Fox about the fracking industry and how this polluted the water source of the area to the extent that oily water came out of taps, releasing gas that could be lit. This film emphasized how poor communities always pay the price when powerful people sign the deals and get rich.

Documentary on Water Pollution by MoninaLapid, where a student talks about causes of water pollution and how to reduce the environmental and health impacts on living organisms.

Documentary on Water Pollution by AnahatJuneja, which shows how beautiful the earth was and how people are now turning it into a dumping ground and how industries are destroying nature by discharging their waste, gases, chemicals and metals.

www.waterdowsing.co.uk/waterdrillingquestions.htm by Peter Taylor describes the process to follow when drilling a borehole and which materials to use. Eustice found this very enlightening for SEJN; she says they can now see that the water shortage in her community is probably a result from some steps not being followed correctly: incorrect pipes were used (too short and made of steel, not plastic). It looks like this was caused by lack of resources. The government is failing the communities, because they don't care about communities.

“How safe is borehole water?” (www.sundaymail.co.za), showed us that it's not only in South Africa that communities suffer from mining activities in their area. They spoke about Harare where the water is also contaminated by sewage pipes leaking, but also by toxic minerals from underground blasts used in mining. We learned how dangerous underground water can be, as a result of mining, industries and community activities. That was surprising, says Eustice: “I did not know that underground water is dangerous, because I was telling myself because water is from underground, there is no way it can be polluted.”

Lenntech (www.lenntech.com/water-quality-faq) provides water treatment solutions for all sorts of applications, from domestic to industrial plants, up to 5000m³/day. It has various clients, ranging from municipalities, to water bottlers, hotels, farmers, chemical factories, oil and gas industry. Tokelo found this interesting, as SEJN now know that there is a water treatment solution that municipalities can turn to if they want to provide communities with clean water. They can build a good relationship with them and have a healthy people around.

Learning from new knowledge

Slowly the communities' voices will be heard and government has to stick to what communities say. Even if we don't see the changes, our children's children will one day enjoy the fruits of our battle.

As members of SEJN, doing the research in our Changing Practice course, we've learned from these sources that information and education is important. We need to share our knowledge, also in schools. We can't stop the mining, but we can make sure they comply and stop any new mining initiatives. We can also encourage our government to introduce alternative sources of energy, like solar, and alternative sources of jobs, by going back to farming.

We've also learned that you can ask government for information, you can build up a relationship and you can ask them to get involved in your cause. They do seem to care sometimes.

The learning also makes us persistent in our activism of saving the earth. Slowly the communities' voices will be heard and government has to stick to what communities say. Even if we don't see the changes, our children's children will one day enjoy the fruits of our battle.

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