

TB in mining industry

The spread of tuberculosis among mineworkers can be controlled if government takes a firmer stance and living conditions are improved, writes **Peter Bailey**.

CDM projects operate worldwide. In Dakar, Senegal, the government aims to close the huge Bokk Diom landfill and open a new one using incineration to get CDM credits and finance. Thousands of waste pickers are fighting this.

In Delhi, India at Oklha a CDM project has made 10 000 waste pickers redundant. The CDM financed a company which installed an incinerator and is also building other incinerators in India. The government received finance for implementing this project so it ignored waste pickers' protests.

Bisasar Road landfill is a CDM project in Durban. The project claims it is removing methane and using it to generate electricity for the poor. In reality it is inserting pipes into the waste and selling the methane to Eskom. The company has fenced off the landfill so pickers cannot get access.

CDM projects affect the world's poorest as they destroy thousands of jobs and fail to see the beneficial impacts that waste pickers can have on climate change. Said one waste picker, 'South Africa is a democratic country and this incineration machine is not democratic and it must go back to where it came from as it is only creating two jobs. We don't need it.' **LB**

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The mining industry has a huge legacy of uncontrolled and unmonitored occupational tuberculosis (TB) disease that workers get by inhaling silica dust. To add to this there is also the normal TB, which is caused by the way mineworkers work and live.

TB has led to hundreds of mineworkers being repatriated or medically boarded to become a burden to their families and the state.

In 2010 the industry sent home over 2 000 workers of whom 300 died and new infections are increasing daily. An analysis from the Department of Mineral Resources (DMR) annual report 2009 - 2010 as per each commodity shows shocking results.

In 1995 the Leon Commission of inquiry into mine health and safety concluded that exposures to dust have remained unchanged in 50 years. This situation has been confirmed by a number of studies.

The National Union of Mineworkers (NUM) has been arguing that the compound system is the major contributor to the spread of TB in the mining industry hence there is a need

to speed up provision of decent housing for mineworkers.

It is estimated that for every fatal accident, five workers die from occupational diseases. We can then safely assume that to date about 75 workers who were employed in the mining industry have succumbed to occupational disease silently at their rural homes.

The South African government has estimated that the TB infection is amongst the highest in the world and the DMR report shows that.

Gold mines

An increase in silicosis cases provides evidence for previous exposure to high levels of silica dust, not current exposures. This implies that only when silica dust exposure levels are not exceeded, will silicosis be eliminated, thus achieving the milestones. It is for this reason that focus should be on dust control measures as per the Mine Health and Safety Council milestones, which aim to eradicate silicosis. Ideally there should not be any new cases of silicosis by 2013 of employees recruited from 2008 who had never been exposed to silica dust before.

TB has overtaken silicosis in terms of the number of cases reported. This is in line with the national picture with regards to TB infection. The mining industry has appeared to be the hardest hit considering the many risk factors encountered in the industry, such as silicosis, age and HIV co-infection and living conditions, amongst others.

There are indications that tuberculosis (TB) has slightly gone down though not significantly. This might not be a true reflection since some mines do not keep data for TB as they refer their employees to public facilities for further management.

Silico-Tuberculosis and other occupational diseases have slightly increased in the sector as compared to the preceding reporting year. In the platinum sector there is a belief that there is no silica dust, but mineworkers continue to get sick. There is also a claim that gold and coal mineworkers have migrated to this sector.

Platinum mines

Noise Induce Hearing Loss (NIHL) has decreased and this is in line with what the industry aims to achieve in terms of the milestones set. Hearing conservation programmes are probably implemented or followed.

Pulmonary tuberculosis is maintaining an upward trend in platinum mines, but the numbers are much lower than in gold mines. Silicosis is not a key health risk factor for TB in this case unless an employee was previously exposed at a gold mine. Other risk factors should be considered, like HIV-infections and others already mentioned.

Silica-TB in the platinum mines could be misdiagnosed leading to under-reporting. Some cases may be submitted as ordinary TB hence the high numbers of TB shown in the graph.

There is an increase in the number of other occupational diseases submitted that would be reported and investigated in the coming year in terms of the new regulations.

Coal mines

There is a significant increase in Coal Workers' Pneumoconiosis as compared to the preceding year, which needs to be investigated in line with the regulations on health incident reporting. TB and NIHL show a downward trend. TB programmes and management seem to be achieving the reduction of cases. Best practice will have to be looked into.

Diamond mines

NIHL cases have decreased significantly as compared to the previous reporting year. This is encouraging in terms of achieving the milestones and it further indicates that the hearing conservation programmes are in place or adhered to.

Pulmonary Tuberculosis cases have slightly increased and the same contributory factors as in the platinum mines could apply.

Occupational diseases for other mines

In other mines NIHL cases have increased as compared to last year, which might indicate that hearing conservation programmes have not been implemented.

All other diseases seem to be following a downward trend. TB management seems to be improving in the small mines. However, employees from small mines with TB are usually referred to local clinics and most get lost to the system.

In conclusion, NUM would want to see the following changes as part of the strategies to reduce occupational diseases in the sector:

- We appeal to the media to put a particular focus on the

occupational diseases for mineworkers.

- Dust measurement must be reduced from 0.1 to 0.05 as matter of urgency.
- There is a need for a strong enforcement from DMR on TB management.
- A central data collection for the sector must be established immediately.
- A coordinated referral system that will include the Southern African Development Community region must be set up.
- The Department of Health and DMR must pay particular attention to hygienic living conditions of mineworkers as the environment increases the spread of TB within mineworkers. The nutrition of mineworkers should also be improved.
- All occupational health guidelines must be changed to Code of Practices so that they are mandatory.
- In the platinum sector there is need to conduct research on what these rocks contain and what will be the health exposure consequences for the mineworkers, the DMR through the Mine Health and Safety Council must lead that process.
- The integration of Occupational Diseases in Mines and Works Act (ODIMWA) and Compensation for Occupational Injuries and Diseases Act (COIDA) must be accelerated so that there is fair compensation for mineworkers' occupational diseases. ^{LB}

Peter Bailey is the national chairperson on health and safety with the National Union of Mineworkers and this article comes from a presentation he made at the Stop TB partnership workshop in Rosebank, Johannesburg.