



Health impacts of large natural resource extraction projects in Tanzania

Tanzania is rich in natural resources and saw a rapid growth of the extractive industries sector in recent years. Mining projects can support economic development. At the same time, they have positive and negative impacts on public health. New evidence from the Health Impact Assessment for Sustainable Development (HIA4SD) project illuminates the interplay between environmental, social and economic changes that affect health in mining communities.

Photo: Dispensary donated to a local village by a mining company. © Isaac Lyatuu

KEY MESSAGES

- Positive impacts of mining include employment and business opportunities as well as economic and community development in mining communities and beyond.
 - Many negative impacts on environmental health were identified, such as pollution of air and soil, increases in road traffic accidents and sexually transmitted diseases.
 - Health equity is a major concern since positive and negative impacts are not equally distributed between social groups and genders.
 - A more rigorous assessment of potential health impacts prior to project development could help to promote health and well-being in mining communities.
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INTRODUCTION

In Tanzania, the extractive industry currently accounts for about 4.8% of the national gross domestic product (GDP) with a government target of 10% by 2025 (1). While this emphasis on mining supports economic development, resource extraction affects the health of local communities and others.

The HIA4SD project (www.hia4sd.net) has generated a sound evidence-base about the diverse pathways health is affected by industrial mining projects. It is implemented in four African countries, namely Tanzania, Mozambique, Ghana and Burkina Faso. Findings are employed to facilitate a policy dialogue to strengthen the application of health impact assessment (HIA) as a regulatory mechanism to avoid the negative effects of industrial mining on public health. The project aims to actively engage mining projects and other development partners in the 2030 Agenda for Sustainable Development.

In Tanzania, the project conducted focus group discussions and local level, key informant interviews in communities around three major mining projects in Shinyanga and Geita. In addition, the project used data on causes of death in mining communities and health facility data. Beyond Tanzania, the project conducted regional and global-level analyses using Demographic and Health Surveillance (DHS) data and the World Bank Development Indicators (WDI) database.

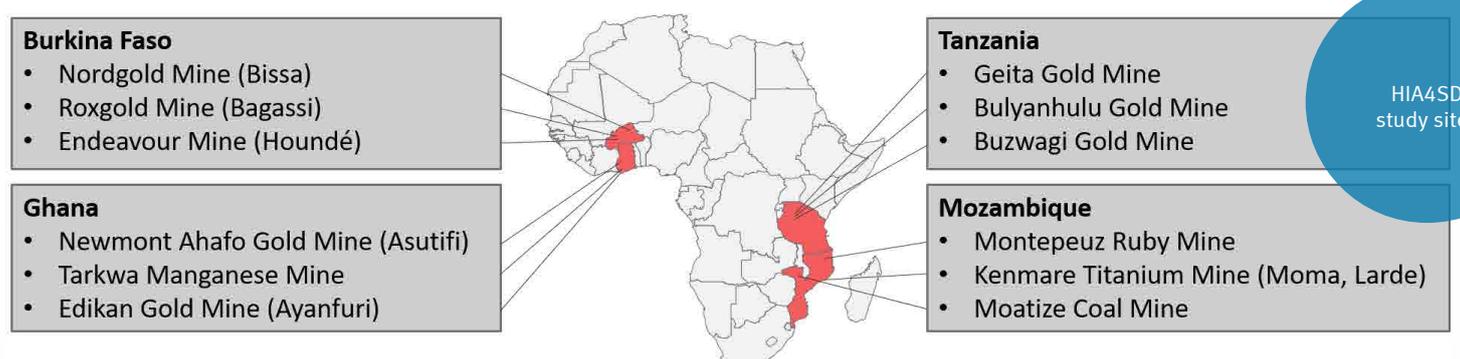
EVIDENCE OF HEALTH IMPACTS FROM LARGE RESOURCE EXTRACTION PROJECTS

Evidence of social development

Through corporate social responsibility activities, extractive industries in Tanzania, as in other parts of Africa, have contributed to community and social development. The HIA4SD data shows that African mining communities have better housing and improved access to safe and clean water, financial services, and clean cooking fuels. Furthermore, in some cases, mines contributed to the construction of schools, roads or health facilities. Beyond infrastructure, mining projects have also been found to alter social dynamics and cultural health aspects. Evidence from this study shows that increased migration and higher income levels may have contributed to sex exchange behavior between locals and mine workers, linked to increased prevalence of sexual transmitted diseases and teenage pregnancies (2).

Economic development

In Tanzania, the mining industry contributes to economic development by providing direct employment to some community members while others provide services to the mines directly and indirectly. The focus of local economies on the mining sector can, however, lead to the neglect of other sectors, such as fishing, farming and livestock keeping. For example, farmers in areas near Shinyanga and Geita lost land to mining and lost





crops to pollution from mining activities. Furthermore, water pollution affected several fishing businesses.

Environmental pollution

Despite broad implementation of Environmental Impact Assessment (EIA) in the four HIA4SD study countries, some elements of environmental pollution, including air, land and water pollution, still persist. For example, communities around the major gold mines in Shinyanga and Geita regions reported a negative impact on water quality, quantity and reliability. Furthermore, residents expressed concerns over the increased dust levels due to movement of heavy traffic close to community settlement areas. Indoor tobacco smoking was found to be significantly higher in mining areas than non-mining areas. In addition, blasting activities were associated with structural damages in nearby houses.

Health equity aspects

Mining projects create economic opportunities, jobs and infrastructure, and contribute to social development. However, the HIA4SD study reveals such benefits are not equally distributed across different socioeconomic strata in the community (2). For example, there is unequal distribution of employment opportunities in the mining sector. While men were more likely to benefit from the job opportunities provided by mining companies, women tended to be affected disproportionately by negative impacts. Similarly, poorer households were less likely to benefit from improved infrastructure. Due to environmental pollution and loss of land, focus group participants in this study were particularly concerned about insecure livelihoods. Given these unequal impacts, extractive industries can widen existing health gaps by affecting the health and well-being of local communities.

Health outcomes

Resource extraction projects have both positive and negative health outcomes. In Tanzania, positive impacts included a lower reporting of chronic diseases, diarrhea, undernutrition, parasitic diseases and mental health problems. However, miners have a higher risk of dying from road traffic and non-road traffic injuries than non-miners (3). Further analyses using data from multiple African countries shows that the opening of mines increases the prevalence of HIV infection, reduces knowledge about protective measures and increases the frequency of risky sexual behaviors, such as having multiple sex partners and unprotected sex in a non-exclusive relationship. Chronic diseases, such as hypertension, cancer, diabetes, bronchitis and asthma, are more commonly reported near construction material extraction sites. Furthermore, mine openings significantly improve child nutrition and reduce neonatal mortality in African mining communities.

WHAT IS HEALTH IMPACT ASSESSMENT?

Impact assessment is an established approach to minimize adverse environmental, social and health impacts of projects, policies and programs, while fostering opportunities for equitable and sustainable development. In the context of resource extraction projects, impact assessments are conducted before their implementation as part of the licensing process.

Health impact assessments (HIA) focus specifically on potential health impacts in affected communities and the distribution of those effects within the population. They generate evidence for appropriate actions to avoid or mitigate health risks and promote health opportunities. HIA guide the establishment of a framework for monitoring and evaluating changes in health as part of performance management and sustainable development (4). Health impacts can either be assessed in a stand-alone HIA, as part of widely established environmental impact assessments (EIA), or through integrated approaches, such as Environmental, Social and Health Impact Assessments (ESHIA).

WHERE ARE THE POLICY GAPS?

Adequate policy frameworks can help minimize negative health impacts of resource extraction projects while maximizing potential for local development. In Tanzania, EIA is required for all large-scale resource extraction projects under the Environment Management Act 2004. However, the HIA4SD project has shown that health and social issues are often only marginally addressed under the current approach and that there is also only limited public participation (5). Currently, the health impacts considered in EIA are predominantly interconnected with the environment, such as air pollution, while the scope of other health considerations, such as social impacts and impacts on specific health outcomes, remained narrow. The current approach does not have a legal text or resource handbook which would provide methodological guidance on how health needs to be included in EIA. Our previous policy brief (see link below) has also highlighted important gaps in the implementation of HIA under current EIA guidelines.

A Q-methodology study conducted in Tanzania explored the views and policy preferences of different stakeholders on the inclusion of health dimensions as a mandatory impact assessment requirement. It aimed to identify concrete policy options with broad acceptability among different stakeholders. Preliminary findings are presented in a separate document (see link below).

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LINKS

www.hia4sd.net



Policy brief “Environmental Impact Assessments of Tanzania’s Mineral Sector: Strengthening the Inclusion of Health”: [here](#)



Preliminary findings from a Q-methodology study: [here](#)



Click [here](#) for a video clip about the HIA4SD project set up.



Digital storytelling video clip with insights into field work from Tanzania: [here](#)



Video publication:
Water and health in mining regions in sub-Saharan Africa: a mixed methods geospatial visualization: [here](#)

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