



# The Land Factor in Mining Gold Reserves in Tanzania

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## INTRODUCTION

After three decades (following independence) of being overwhelmed by command-economy policies, in the 1980s the Tanzania's gold mining industry benefited from policy reforms that started with the economic recovery programmes (ERP). These reforms freed in part the major means of production from state ownership. The accompanying paradigm shift allowed artisanal and small-scale miners (ASM) to register claims and retain much-needed foreign currency for rural development long before mining companies started operations. The reforms also translated into rises in gold production, which reached a level of over one million ounces per year in the new millennium.

Tanzania has re-entered large-scale gold mining with a bang, with six gold mines opening up since 1998. Production is high and rising, and today the country is the third-largest gold producer on the continent after South Africa and Ghana. In 1995 the adoption of the National Land Policy was followed in 1999 by enactment of the Land Act and Village Land Act. These Acts came only a year after a

new Minerals Policy and the Mining Act came into force, and all took on board the essentials of the ERP. However, the two frameworks remained separate and contradictory, to the detriment of the relationship between stakeholders.

The concerns – of communities over land tenure and of mining companies over land access – are yet to be reconciled within the land and mineral regulatory frameworks. Governance in Tanzania's gold mining industry remains an area of serious concern, as conflicts over land and licensing issues are prevalent among stakeholders, and ensuing conflicts indicate that mining contracts are lopsided. The potential contribution of gold to the Tanzanian economy is limited by these conflicting laws and policies, which give rise to issues of land degradation (by small- and large-scale mining), access to land and compensation for the loss of land.

## THE GOLD ECONOMY

Gold is now the major mineral under extraction in Tanzania. Proven gold reserves are in excess of 36 million ounces (oz). Each of the six large gold mines has a production capacity of

between 200 000 and 1 000 000 oz per year. As production levels continue to rise year after year, so too does the price of gold, which currently stands at around \$1500 an ounce on the world market, up from \$271 an ounce in September 2001. The rising prices reflect a market in which demand is more than 50% higher than supply and a promising industry for the economy.

Gold production now accounts for over 41.3% of Tanzania's export earnings, 75% of foreign direct investment (FDI) and an increasing share of taxes, representing 3.6% of GDP and, contributing 4% of its growth. However, the current arrangements governing all-foreign owned large scale mines of the non-renewable resource are arguably not in the country's best interest. A recent study found that the contribution of mining company revenue to social and community programmes is negligible, which suggests that these large firms have little interest in developing the communities surrounding the mines. Instead, the wealth created is used for the operations, management and financing of the companies, while the land and

environment surrounding the mines degrade further.

### **LAND AND ENVIRONMENT DEGRADATION**

Large-scale gold mines generate more waste per ounce than any other mineral. It is estimated that extracting one ounce of gold requires the removal of more than 250 tons of rock and ore. These are the piles of infertile soil seen around gold mines all over the world, and Tanzania is no exception to this practice. Effluent from chemical processing plants contains lead and mercury in large quantities among other metallic sulphides disposed. The United Nations Industrial Development Organisation (UNIDO) estimated that, for every gram of gold recovered, 2–5 grams of mercury is released into the environment. Of course, the industry has put in place safety measures to manage the poisons, but the precautions can be violated or mismanaged.

Between 2005 and 2008 chemical disposals from the processing plants at the North Mara Mine (NMM) in Tanzania's Tarime District created environmental and land hazards that adversely affected the surrounding communities. A study conducted by three independent groups of researchers found that, compared to World Health Organisation, USA and Tanzanian standards, levels of heavy metals were above normal in the area surrounding the mine. Poisonous chemicals, in the form of acid mine drainage, came from the mine's tailing dam and waste rock piles. The

nearby River Tigithe was affected, particularly people and domestic animals from using the river water.

ASMs in Tanzania also damage the land and the environment, although on a smaller scale. Unlike the mining companies, ASMs are difficult to regulate because of the way in which their mining operations spread and the lack of proper and easily identifiable management. ASMs often invade areas suspected of containing gold deposits with no regard for prevailing land tenure and land-use arrangements. Fights resulting in loss of lives occur regularly before authorities can move in and restore order, such as in Nyamongo, Buhemba and Chirorwe in the Mara Region. Furthermore, financial rewards of gold miners are often obtainable only at depths close to about 100 metres. As the tonnage of extracted rock is enormous and not affordable, ASMs take shortcuts by using narrow pits and tunnels that are prone to collapse. The lack of proper tools also means that many excavations do not go deep; instead shallow ones spread on the surface, covering many hectares and degrading large tracts of surface land.

In Tanzania, communities lose their lands not only through takeovers but also through degradation. By transforming community lands into 'hazardous' lands, mining companies have been tactfully driving away communities from their lands. In Tanzania, the hazardous land subcategory cuts across all three public-land categories (general, village and

conserved) and their respective management structures. Tanzania's Land Act (1999) defines hazardous land as land that if developed 'is likely to pose a danger to life or lead to the degradation of or environmental destruction on that or contiguous land (section 7(1))'. More specifically, hazardous lands in the Land Act include 'land designated or used for dumping of hazardous water' (section 7(1)(c)). Therefore, legally, 'hazardous land' covers the rock overburden piled up on mining sites and all land affected by effluent from the mines whether through percolation, runoffs, or other means.

The Minister in charge of lands has the power to declare lands as 'hazardous', while the president can do the same for lands under statutory tenure. However, even though the law provides for it, no such lands have been declared 'hazardous' on mining sites. According to some reports, the NMM spread its waste over a large area to drive away communities and hence claim possession of land, even where no minerals are found directly underneath. If the law were enforced, neither the communities nor the mining companies would be able to claim ownership of tailing ponds and rock piles. Instead, an appointed authority would manage them as hazardous lands, in the interest of all; similar to how garbage dumps or waste water ponds are managed in cities. Thus, the land and mining laws would be harmonised on the question of land and

environmental degradation.

### LAND TENURE AND LAND USE

Both the land and mining frameworks are built on the same principles: (i) upholding the exclusivity of rights – one right's holder, one land parcel; (ii) secured tenure throughout the tenure period; (iii) development condition applicable to leasehold systems; (iv) transferability of rights including compensation for loss. However, although enforceable through the Tanzanian customary land system of boundary adjudication and property registration, these principles give rise to conflict. The conflict stems from the observed fact that mining seeks to take away the ancestral land rights of communities and people's attachment to ancestral heritage in 'the public interest' – the benefits of which, in the case of Tanzania, hardly trickle back to communities. On many sites, communities have upheld their sense of belonging to the land by standing up against such land grabbing. What makes the issue worse is that the land parcels alienated for mining have ambiguous boundaries and are difficult to adjudicate. Experience in Tanzania has shown the deep attachment of communities to their ancestral lands that cannot be compensated with money as in the absence of freehold tenure, indigenous land owners are disadvantaged and resort to violence. The Government ought to take this issue more seriously in negotiations with mining companies, for the well being of communities and be advised that co-ownership of mines through com-

mensurate share holding is a better alternative to compensation.

Unlike for mining, Tanzania's land-related laws define a land parcel on the ground based on fixed boundaries through rigorous demarcation and geo-referenced co-ordination. The registrar of titles prepares a land cadastre for a well-defined property, which is well supported by maps of the landscape and maps generated by registered and licensed surveyors after the boundary fixation processes. Such a land and property cadastre can therefore be verified on the ground is credible. On the contrary, boundaries of underground interests cannot be fixed for registration. Government ought to use the land cadastre in all mining demarcations and extend these as deposits extend beyond the fixed boundaries. The new Mining Act is moving into this direction and should work better when positive aspects of both cadastres are merged into workable regulations.

According to the Land Act Cap 113 Section 22(2), minerals are by definition not a part of land in Tanzania. The Act does not define a 'mineral land' among its three categories of lands. This is perhaps simply because 'mineral land' is not, and cannot be, known until minerals are discovered on it through prospecting. However, once resources such as gold are discovered, the land turns into a 'minerals land' and falls under the Minerals Act and policies, which take precedent over land policy and laws that govern surface rights. Although the two systems have operated side

by side since independence, the disharmony between land and mineral laws and their enforcement by authorities is the root cause of most conflicts between mining investors and communities in Tanzania.

Both the Minerals and the Land Acts contain a dispute/conflict resolution mechanism, which can be through arbitration, bipartisan negotiations and court hearings. In all three cases, compensation for loss and damages is a major element to a resolution. Even when a resolution has been reached, people are adamant that their sense of belonging to their ancestral lands and burial grounds of their forefathers is an element that cannot be compensated for. The issue is aggravated by the reality that the platform for negotiating compensation in Tanzania is not level. Until the recent amendment to the Mining Act, compensation was limited only to damages (i.e. replacement value), or a fraction of the compensation that would have been obtained under the fundamental principles of the Land Policy and Land Act. In this regard, the amended Mining Act has now adopted the provisions of the Land Act, which calls for opportunity costs to be considered in all compensation negotiations.

The laws and instruments supporting the new Minerals Act amendment need to address: (i) the challenge of boundary definition and fixation for the broader cadastre. The regulation-sunderground resources, particularly minerals that cannot be seen and adjudicated by non-experts. The new

## ESRF POLICY BRIEF

amendment still has to develop instruments to set such a process in motion; (ii) the issue of redefining land holdings of existing mines for the broader cadastre. The regulations in Tanzania require such boundaries to be adjudicated on the ground, in the presence of all parties with interest to the land, which raises another hurdle: that of getting the mine operators and customary land owners to agree on very contentious issues. Conflicts in North Mara and Buzwagi have shown how such negotiations can be almost impossible to convene and conduct.

### RECOMMENDATIONS

- Although the Mining Act of 2010 re-aligned Tanzania's Mining and Land Acts on compensation and the cadastre, regulations and other legal instruments need to be revised. Until then, challenges related to applying fixed boundaries and title adjudication to land under mineral stocks will remain.
- Granting of exploration and mining rights in Tanzania should place more emphasis on land tenure security, to reduce future tensions between the main stakeholders (government, communities and miners/ASMs).

- Mindful of people's attachment to their ancestral lands, the alienated land issue should be reviewed by strengthening the compensation framework (higher rates of payments, insuring against land/environmental degradation and co-ownership of the gold mines, through for instance local shareholdings).
- Raised tensions between rights holders in mining operations should be addressed. Artisanal and small-scale miners should be regulated and empowered to reduce land and environmental conflicts and enable them make profits.
- The management of waste and other mine effluent from gold-processing plants should be managed by an authority appointed to enforce the Land Act in terms of regulating hazardous lands.

### CONCLUSION

Tanzania's gold resources have the potential to contribute significantly to the development of the country. However, serious challenges remain, in particular those related to land: land degradation by both small- and large-scale mining, issues of access to land and compensation for its loss.

Unless the legal and policy frameworks for land and mining are further harmonised, conflicts will continue and the economy will not reap all the benefits of gold production.

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