The role of TNCs in the extractive industry of the United Republic of Tanzania

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Tanzania is richly endowed with mineral resources. Since the mid-1990s, the mining sector has been the fastest-growing sector in the economy, following adoption of favourable investment policies with specific measures for the mineral sector. The influx of FDI is having a net positive development impact, but which needs to be nuanced. First, the impact on the industry in terms of export revenue, employment, technology, skills and knowledge, and Government revenue is significant in absolute and relative terms, given the low base from which the industry grew. Secondly, the impact on local communities is also notable, however, the size of such contributions is largely disproportionate to the revenues accruing to the TNCs and the social cost of the environmental degradation associated with the mining operations. Finally, There is a lack of substantial economy–wide multiplier effects, as would be suggested by the "trickle-down" theorem; but this is purely a policy failure argument in that the lack of significant linkages to the rest of the economy arises from weak supply capacity and an incomplete supply chain. Policy recommendations are made based on a careful assessment of the wider social, political and economic dimensions.

1. Introduction

As specifically stated in its National Vision 2025, the United Republic of Tanzania is keen to sustain policies for attracting increased flows of private domestic and (especially) foreign investment, given the associated development opportunities (see annex). Since the mid-1980s, the Government has taken action to address investment impediments, including reforming the trade regime, exchange rate and other monetary and fiscal policies, coupled with efforts to improve governance and physical infrastructure. The current poverty reduction strategy (MKUKUTA) aimed at accelerating growth and reducing poverty envisions a vital role for foreign investors, including transnational corporations (TNCs) in particular, playing a key part in the

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development of Tanzania's large untapped mineral resources by bringing in much-needed capital, becoming a vital conduit for the transfer of technology and skills to Tanzanians and generating revenue that can be shared equitably between the tripartite stakeholders, namely investors, government and local communities. In this regard, the success of efforts by the Government (among other development partners) to improve the Tanzania Investment Centre as a one-stop investment promotion and facilitation centre has paid significant dividends.[1] Mining and tourism are among the key growth industries that have benefited notably from foreign direct investment (FDI) inflows, in response to the attractive incentives put in place by the Government. Consequently, these industries have been empowered to play a more significant role in the country's growth strategy, notwithstanding the debate on unequal distribution of mining revenues.

This case study notes several particular features of the United Republic of Tanzania, from which the following key findings and messages are drawn.

- Coupled with relatively low rate of exploitation, the country's endowments of a variety of mineral resources make it particularly attractive to mining TNCs. Nevertheless, mining accounts for a disproportionate share of total FDI inflows to the country.
- The achievements made in recent years in attracting FDI have been significant for mining, as shown by increased flows of FDI. The key factor explaining increased inflows of FDI into the extractive industry was the adoption of a more open and liberalized economic policy regime.
- Although the response of domestic investment in mining has been marginal, the policy and legal framework is considered to be highly attractive for FDI.

The impact of TNCs has been more pronounced in terms of volume of investment, technology transfer and export revenue, but less positive in terms of contributions to growth and reduced poverty. The complaints that the mining TNCs benefit disproportionately from mining revenue have led to the public's disillusionment as to mining policy.

Based on these findings, this article identifies a need for policies to enhance economy-wide benefit and sustainability of the extractive industry in the United Republic of Tanzania. Furthermore, although the

[1] The Tanzania Investment Centre has been rated as one of the best Investment Promotion Agencies in sub-Saharan Africa.

prospects for further FDI by TNCs are not necessarily dim, it would depend on continued macroeconomic stability, policy coherence and mutual efforts to address ensuing environmental effects, among other factors.

This article is organized as follows. The next section discusses trends and determinants of TNC activities in the extractive industry. Section 3 addresses the impact of TNCs in the mining industry by examining their contribution to overall socio-economic development and their role in the industry and benefit to the communities around the mining areas. Section 4 presents the policy and institutional framework guiding involvement of TNCs in the mining sector and how it has evolved and been implemented over time. The final section provides some conclusions and recommendations.

2. Trends and determinants

The United Republic of Tanzania is richly endowed with a variety of minerals. In recent years, the mineral industry has produced gold, copper, silver, and rolled steel products, along with such industrial minerals as diamond, calcite, and other gemstones, Tanzanite, gypsum, phosphate rock and salt. The country has also produced coal, natural gas and building materials such as cement, gravel, limestone, pozzolanic materials and sand. It has also known deposits of cobalt, iron ore, nickel and titanium. The country's highly attractive mining investment policy, coupled with a relatively stable political environment with sound legal and fiscal policies, has provided a powerful incentive for TNCs to invest.

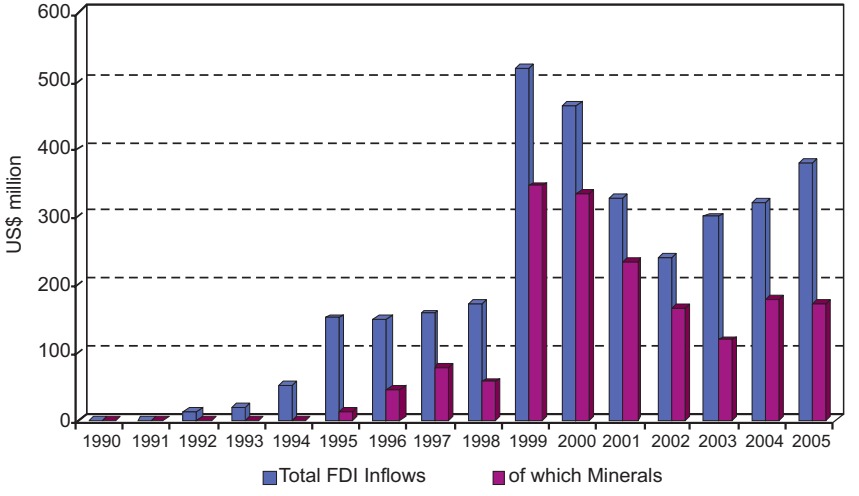
Although the earliest organized prospecting and mining took place during the German colonial period, with gold discoveries in 1894, production was insignificant until the recent involvement of FDI. Part of the reason was the nationalization of the mineral sector in 1968 and the failure of the State Mining Company to develop the sector due to inadequate human and capital resources. Economy-wide market and financial sector reforms since the mid 1980s provided new impetus for foreign and local investments, especially in mining (figure 1).

a. FDI trends and key players

FDI inflows grew considerably in the second half of the 1990s. This period was marked by improvements in the economic situation, rigorous reform efforts to improve the investment environment, and the beginning of the privatization programme. UNCTAD (2002) notes that

the market-oriented reforms reached critical mass and sound foundations for an enabling framework for FDI were put in place, triggering a positive response from private investors abroad. For example, the number of prospecting licences increased from only 10 in 1992 to over 3,000 in 2005. Similarly, mining licences increased from only nine to over 190 during the same period. In tandem, overall FDI into Tanzania between 1992 and 2005 totalled $2.9 billion (of which $1.4 billion was mineral related), compared to less than $2 million between 1986 and 1991. The years 1999 and 2000 experienced the highest levels of FDI inflows, primarily in connection with the proliferation of mineral prospecting activities in the country.

Figure 1. FDI inflows into Tanzania, 1990-2005
(Millions of dollars)



Source: Tanzania Investment Centre.

According to the information from the Tanzania Investment Centre, investments by TNCs have largely focused on gold (table 1). Gold production increased to 54,083kg in 2005 from 48,018 in 2003. Since 2003, Tanzania has been the third-largest gold producer in Africa. Foreign affiliates in Tanzania have a combined estimated production capacity of some 56,800 kg gold annually. Tanzania's resources amount to almost 1,500 tons of contained gold, of which nearly 780 tons are reserves.

Investments continue to flow into mining in the form of prospecting and exploration. For example:

- AngloGold Ashanti spent $5 million on exploration in Tanzania in 2004;
- Barrick and its joint venture partner Explorations Minières du Nord Ltèe (MDN) (Canada) invested $48 million in the construction of the Tulawaka open pit gold mine;
- Barrick commissioned a $5 million exploration study for gold at Buzwagi in 2005;
- Resolute Gold used $5 million on feasibility studies on their Matinje West properties;
- In 2004, Tan Range Exploration (United States) increased its holdings in the Lake Victoria goldfields to 121 prospecting licenses, from 78 in 2003;
- Coeur d'Alene Mines (United States) was awarded ten prospecting licenses for gold and silver in the Lake Victoria goldfields. The company planned to spend $300,000 on exploration in 2005;
- Currie Rose Resources of Canada signed a joint venture agreement with Sub-Sahara in 2004, which covered exploration of the Jubelee Reef, the Mabale Hills and the Nyamirembe project areas (Mining Review Africa, 2004).
- Lakota Resources (Canada) commenced drilling on the Ikungu property in 2004;[2]
- Sola Resources (Canada) and Frontier Resources of Tanzania were engaged in a joint venture to explore for diamonds in their Eagle properties near the Williamson diamond mine. The company was engaged in mineral studies and geophysical surveys in 2005.
- Tan Range and Midlands Minerals (Canada) also obtained licences to undertake exploration in Itilima and other properties.

Tanzania has one State-owned corporation in the oil/gas industry, Tanzania Petroleum Development Corporation (TPDC). It was started in 1973 to encourage, promote and monitor exploration and production of oil/gas in Tanzania on behalf of the Government. It facilitates both domestic and foreign investment in the oil/gas industry as well as signing exploration and production contracts on behalf of the Government.

In the natural gas and oil category, the following key terms and conditions are applicable to all investors:

[2] The following year, 2005, another FDI investor, African Eagle Resources of the United Kingdom, carried out exploration at Miyabi that tripled resources to 8.3 Mt at a grade of 1.5 g/t gold.

- Award of 11-year exploration and development concessions based on four initial exploration years with a four-year extension, and a second three-year extension to the point of production;
- Relatively large exploration area concessions up to a maximum of 60 blocks, with RSA certificates for more than one licence;
- Generous and negotiable work programmes covering oil recovery cost allowances and oil profit splits with the Government, with no import duties on all equipment brought in for petroleum and gas exploration;
- No signature or production bonus payments;
- Full allowance for uncovered exploration costs incurred under earlier PSAs by the company in all its contract areas once it has made a discovery in a subsequent PSA, i.e. no ring-fencing.

Table 1. Main foreign affiliates in the mining industry of Tanzania, 2006

Company	Mineral	Location	Entry year	TNC form	Investment (MUS$)	Status
Williamson Diamonds (South Africa)	Diamond	Mwadui	1940	Licenses	12.3	Active, open-pit
Resolute Gold – SAMAX JV (Australia)	Gold	Golden Pride Nzega	1998	Licenses	77	Production
Barrick Gold (Canada)	Gold	Bulyanhulu	2000	Licenses (100% Barrick Gold.)	280	Active, underground
Africa Mashariki Gold Mines/ Placer Dome (Canada)	Gold	Nyamongo, North Mara	2001	Placer Dome acquired North Mara in 2003	72	Active, open-pit
Anglogold Ashanti (South Africa-Ghana JV)	Gold	Geita	2001	Mergers and acquisitions, JV	450	Active, open pit
AFGEM (South Africa)	Tanzanite	Mererani-Arusha	2002	Licenses/ Legislation	20	Active, underground
Barrick Gold (Canada)	Gold	Tulawaka	2005	JV (Barrick (70%) and Explorations Minières du Nord Ltee of Canada (30%))	65	Active, open pit
Barrick Gold (Canada)	Gold	Buzwagi, Kahama District	2006	Licenses	400	Active, open pit

Source: Ministry of Energy and Minerals, 2005, Economist Intelligence Unit, 2004.

Orca Exploration Group, a TNC that has been listed in Toronto since 2004, has a subsidiary, PanAfrican Energy Tanzania, which

operates the remote Songo Songo gas field in Tanzania. The gas reserves were first discovered by ENI (Italy) in 1974, but production begun only in 2004. Five wells are currently in production, with average well rates up to 25 mmcfg/d. Gas demand has substantially exceeded expectations, and negotiations are being advanced to expand the gas plant and boost production by late 2007 to a maximum pipeline capacity of about 105 mmcfg/d. Another investor, Artumas Group (Canada), signed a production-sharing agreement with the Government of Tanzania in 2004 to develop the Mtwara Energy Project (60:40 share split). This project involved the development of natural gas resources in Mnazi Bay in Southern Tanzania, the construction of a 27-km pipeline, the installation of a 30-MW power plant and the upgrading local transmission and distribution systems. The total capital cost was estimated at $97 million. The estimated resources at Mnazi Bay range between 2.1 billion to 6.1 billion cubic metres (Artumas Group, 2005).[3] In the oil category, the joint venture of Aminex (Ireland), Bounty Oil and Gas NL (Australia) and Petrom SA (Romania) drilled the Nyuni-1 exploration well on its Nyuni offshore field concessions. In 2004, Petrobras (Brazil) was awarded an exploration license for Blocks 5 and 6 in the Mafia Basin. In 2003, Royal Dutch/Shell Group (UK/Netherlands) had acquired four offshore blocks (blocks 9, 10, 11 and 12) to the west of Pemba and Zanzibar. Currently, however, Tanzania depends entirely on imports for its petroleum requirements.

b. Role of domestic private companies

Structural and monetary reforms implemented after the mid-1980s redefined the role of the Government as regulator, promoter, facilitator and service provider. Domestic private companies in the mining industry are small and largely artisanal. The ending of the State monopoly in the 1980s opened up opportunities for any citizen to register claims and sell minerals. As a result, the number of artisanal and small-scale miners increased from about 150,000 in 1987 to 500,000 in 2001 and to over 600,000 in 2005 (Phillips et al., 2001; Tan Discovery Minerals Ltd, 2003; Mwaipopo et al., 2004). Growth was further boosted in the early 1990s when the Government allowed exporters to use their proceeds to finance imported goods, equipment and spare parts.

The small operators are mainly engaged in mining gold, gemstones, industrial minerals, gypsum, dimension stones, coal, lime, salt and sand

[3] Artumas, in partnership with TransCanada Pipelines and Overseas Ship Holding Group, has completed the first half of a comprehensive FEED study to provide 50 MMscf/d of compressed natural gas shipped up the coast of Tanzania and to Kenya.

and aggregates. Most small miners use open cast mining methods, which are shallow pits and excavations. Underground mining is practised by a few small-scale miners, largely in reef gold ores, gemstones (tanzanite and rhodolite) and coal. Domestic private companies, small-scale miners and artisanal miners account for about 10% of total mineral production in Tanzania, equivalent to a value of some $55 million per year.

3. Development impacts

The benefits of mining TNCs to Tanzania are not limited to capital and investments but also include increased export revenues, employment, training and skills enhancement, technology, linkages to the local economy, and contributions to the local community. These are discussed below.

a. Production and exports

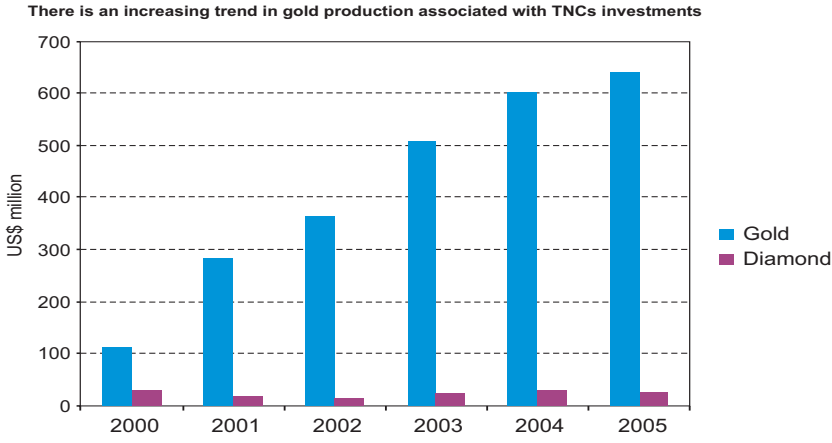
The contribution of mining TNCs to mineral production and export revenue is shown in table 2. Gold production has increased from $114 million in 2000 to nearly $640 million in 2005. Mineral exports by TNCs accounted for over 43% of total exports, up from under 6% in 1999 (table 3).

Table 2. TNCs mineral production and value of exports, 2002-2005

		2000	2001	2002	2003	2004	2005	Total
Gold	Weight Oz (Thousands)	388.3	1,012.5	1,147.1	1,410.8	1,494.5	1,517.4	6,970.6
	Value USD (Million)	114.4	282.8	362.8	509.8	602.3	639.2	2,511.3
Silver	Weight Oz (Thousands)	45.5	268.5	340.9	377.3	427.5	401.2	1,860.9
	Value USD (Million)	0.2	1.2	1.5	1.8	2.9	1.6	9.2
Copper	Weight Oz (Thousands)	-	6,984.7	9,309.8	8,191.0	13,613.9	8,072.1	46,171.5
	Value USD (Million)	-	5.0	6.5	6.0	12.2	11.6	41.3
Diamonds	Weight MC (Thousands)	285.5	189.4	152.2	207.3	286.0	190.4	1,310.8
	Value USD (Million)	28.7	17.7	13.0	22.0	28.9	23.9	134.2
Tanzanite	Weight gm (thousands)	99.3	237.8	229.6	286.9	196.8	282.0	1,332.4
	Value USD (Million)	0.2	1.5	3.3	3.3	5.9	16.5	30.5
Total value (US$, Million)		143.5	308.2	387.1	542.9	652.2	692.8	2,726.5

Source: Ministry of Energy and Minerals.

Figure 2. Most of the TNCs' mining activities are in gold



Source: Ministry of Energy and Minerals.

Table 3. TNCs' mineral exports in relation to Tanzania's total exports, 1999-2005

	1999	2000	2001	2002	2003	2004	2005
TNC Mining Company Exports Value (Million of dollars)	30.7	143.4	308.1	389.1	542.9	652.3	692.8
Tanzania's Total Exports (Millions of dollars, fob)	543.3	663.2	681	874	1175	1439	1608
TNC Mining Exports as percentage of total exports	5.7	21.6	45.2	44.5	46.2	45.3	43.1

Source: Ministry of Energy and Minerals, National Bureau of Statistics, Tanzania in Figures, 2005.

b. Government revenues

FDI in mining activities involves the transfer of the right to mine an area in exchange for some amount of economic rent paid to the government. Economic rents from natural resources are commonly known as "resource rents" since they are derived from natural resources. In the case of mining, resource rents encompass all direct revenues to the Government – taxes and fees from mining activities. These taxes and fees are paid to the Government for the use and development of the nation's resources. Other types of resource rents that are associated with mining projects are landowner compensation and national/local equity participation in resource development.[4] The latter is not a requirement

[4] In this case, the Government, occasionally at the local level, becomes an actual partner in a project, thereby acquiring a percentage of profits in addition to taxes and fees. Since the equity partner is normally the Government or its agent, the majority of revenues from profit sharing accrue to the national Government.

by law, but an option voluntarily exercised by the investor. Table 4 shows the revenues from TNCs between 1999 and 2005. All fiscal provisions are pre-determined by Government, and investors agree with the applicable rates as shown in Section 4.

Table 4. Amount (MUS$) and Structure (%) of tax revenue from mining TNCs by type of revenue

Payment	1998	1999	2000	2001	2002	2003	2004	2005
PAYE - Exp. Salaries	332	343	3427	1673	6770	5980	10321	13515
%)	(15)	(7)	(17)	(7)	(19)	(14)	(18)	(20)
Payroll Levy-Exp.	39	39	455	258	411	596	2165	2644
(%)	(2)	(1)	(2)	(1)	(1)	(1)	(4)	(4)
PAYE-Exp. Gratuity	-	-	-	277	552	2864	40	144
(%)				(1)	(2)	(7)	(0)	(0)
Withholding Tax- Mine site	104	354	5786	5462	5545	5282	5651	4890
(%)	(5)	(7)	(29)	(21)	(15)	(12)	(10)	(7)
Withholding Tax- Dar	-	-	102	78	44			
(%)			(1)	(0)	(0)	-	-	-
Payroll Levy	25	124	242	686	1009	732	967	1259
(%)	(1)	(3)	(1)	(3)	(3)	(2)	(2)	(2)
Skills Dev. Levy	121	226	377	350	326	325	467	557
(%)	(6)	(5)	(2)	(1)	(1)	(1)	(1)	(1)
NSSF	274	520	1103	1027	2076	3465	4296	5300
(%)	(13)	(11)	(6)	(4)	(6)	(8)	(8)	(8)
PPF	-	-	(4)	-	-	(16)	(17)	(92)
(%)			0			0	0	0
PAYE	490	1051	1421	6294	3727	3602	3948	5328
(%)	(22)	(22)	(7)	(25)	(10)	(8)	(7)	(8)
Stamp Duty	2	2	114	153	201	21	41	162
(%)	(0)	(0)	(1)	(1)	(1)	(0)	(0)	(0)
Donations	51	60	178	139	229	316	297	153
(%)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(0)
Road Toll	-	200	441	461	684	800	813	1817
(%)		(4)	(2)	(2)	(2)	(2)	(1)	(3)
Mining Lease	71	150	307	314	352	190	457	485
(%)	(3)	(3)	(2)	(1)	(1)	(0)	(1)	(1)
Royalty	475	1247	4612	6991	10833	16522	21452	23609
(%)	(22)	(26)	(23)	(27)	(30)	(38)	(38)	(36)
Import Duty	200	201	533	1053	2566	971	3734	4834
(%)	(9)	(4)	(3)	(4)	(7)	(2)	(7)	(7)
Others	-	367	610	338	911	1517	1484	1662
(%)		(8)	(3)	(1)	(3)	(4)	(3)	(3)
Total	2182	4883	19711	25555	36235	43198	56150	66451
(%)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)
s % of total Govt revenue	2.01	4.31	1.82	2.26	3.23	3.56	4.13	4.04

Source : Ministry of Energy and Minerals.

Notes: Figures in brackets are percentage of total (column wise), where (0) means a contribution less than 1%. PAYE is the Pay As You Earn tax. NSSF is the National Social Security Fund, which is a more general social security scheme, as opposed to a more specific one such as PPF, that is, the Parastatal Pensions' Fund.

As indicated in table 4, Government revenues from major mining operations in Tanzania have been increasing consistently since 1998, from about $2 million to over $66 million in 2005. Since most TNCs mining projects are in the early stages of operation,[5] they have not started paying corporate taxes. Actual revenue to the Government from these TNCs' operations averages some 1.2% of total domestic revenue per year, which has prompted many observers to conclude that Tanzania's mineral resources are not being recovered to develop the country but to benefit foreign investors. Based on the current policy initiatives to emphasize value addition and increased benefits from mineral resources to Tanzania's economy, this dismaying situation is most likely to change for better, subsequently improving the sustainability of the mineral industry and the coherence of mining policy.

c. Employment

TNCs' mining investments have also fostered employment creation, albeit on a small scale (table 5). The limited local employment is partly due to the capital-intensive nature of production in large-scale mines (Kulindwa et al., 2003). Another reason observed by Mwalyosi (2004) is that recruitment of labour by TNCs takes place outside the locality, largely in the commercial capital, Dar es Salaam; and sometimes outsourcing from countries with a history of skilled mining labour such as South Africa, Australia, Canada, Ghana and Namibia. Mining employment fluctuates with production levels and may not be a sustainable source of long-term employment.

Table 5. Size and structure of employment in TNC mining enterprises

Category	1998	1999	2000	2001	2002	2003	2004	2005
Foreign employees	20 (3.3%)	47 (3.9%)	238 (10.2%)	267 (8.0%)	340 (8.3%)	363 (10.2%)	387 (7.9%)	441 (8.3%)
Tanzanian employees								
(i) Local Professionals	32 (5.3%)	99 (8.2%)	244 (10.5%)	318 (9.6%)	375 (9.2%)	151 (4.2%)	135 (2.8%)	325 (6.1%)
(ii) Other cadres	553 (91.4%)	726 (60.2%)	1,066 (45.9%)	1,402 (42.2%)	1,488 (36.5%)	800 (22.4%)	800 (16.3%)	1,588 (29.8%)
On site contractors	-	335 (27.8%)	774 (33.3%)	1,335 (40.2%)	1,877 (46.0%)	2,261 (63.2%)	3,582 (73.0%)	2,966 (55.9%)
Total employees	605 (100%)	1,207 (100%)	2,322 (100%)	3,322 (100%)	4,080 (100%)	3,575 (100%)	4,904 (100%)	5,320 (100%)

Source: Ministry of Energy and Minerals. Size is given by number of employees, while the structure is shown by the respective percentage share of total (in brackets).

[5] Most companies have not yet recovered their capital expenditure, and therefore have not started paying corporate profit tax to the Government (it normally takes five years from the start of production in order for them to recover their capital allowances as part of tax incentives).

The data in table 5 indicate increasing employment levels of both foreign and local employees since 1998. A study by World Bank (2005) found a positive relationship between increased production of gold, largely by TNCs, and growth of employment.[6] As table 5 indicates, employment fluctuates considerably as it occurred in 2003 and 2004 for Tanzanian professionals and other cadres, partly as the sector is growing increasingly capital-intensive.

Apart from the direct employment benefits, mining TNCs create employment more indirectly in the local community through infrastructure investments, in particular in the water, health and roads sectors. For example, Placer Dome, which owns Afrika Mashariki Gold Mines, has invested in improving rural infrastructure around the mining communities, including health ($400,000), education ($550,000), water ($100,000), and roads ($600,000).

d. Transfer of technology and skills

Another measure of impact is the effect of investments on fostering skills development. Skill inadequacies and shortages have long posed a development challenge (ESRF, 2002; UNCTAD, 2001; World Bank, 2001; Wangwe, 1999). Although literacy rates have recorded an improvement from an estimated 67% in 1999 to 84% in 2005, much remains to be done (United Republic of Tanzania, 2005). Some other studies on the Tanzanian experience are less optimistic (United Republic of Tanzania, 2003), and point to the need for the Government and other stakeholders to step up efforts aimed at generating competencies required by the current labour market and globalization. Kweka (2007) notes that employment-based training by various enterprises in Tanzania is mainly geared to filling the shortage of skills in the industry despite the existence of well-educated manpower.

With skill shortages limiting productivity growth, FDI may be looked upon, at least in the short and medium term, as a prime source of human capital development and new technology diffusion for the country.[7] From several surveys on the impact of FDI in Tanzania (e.g. Wangwe et al., 2005), it can be concluded that TNCs not only help in

[6] The correlation coefficient between output from TNCs gold mines and employment was 0.79.

[7] Jenkins and Thomas (2002) for instance, posit that if technical, entrepreneurial and managerial skills are scarce in a country, training of local personnel by foreign subsidiaries established in the country could bring about considerable diffusion of these skills.

multiplying jobs and raising wages but are also useful in encouraging investment in human capital through the transfer of skills (training) and knowledge to the local workforce. All large mining companies undertake training of their staff. The skills imparted pertain to geology, mining, electrical and mechanical engineering related to mining operations, underground mining techniques and safety measures, processing, finance and management.[8]

According to a study by Mllula (2006), the capacity-building component is part of TNCs' strategies to improve efficiency. The Government of the United Republic of Tanzania does not mandate TNCs to undertake local staff training or transfer of technology; has no policy on corporate social responsibility; and imposes no performance requirements regarding training of local staff or technology transfer. However, all investors are encouraged by Tanzania Investment Centre to voluntarily undertake their corporate social responsibilities, including philanthropic activities.

There have been a number of cases of technology transfer. For example, between 2000 and 2003, AFGEM (South Africa) invested some $20 million in tanzanite fields in Mererani. The company pioneered a branding and certification process for its gem-quality tanzanite production. Other mining companies have constantly been expected to emulate this example, given the current policy emphasis on adding value to minerals produced through processing in-country, and branding their products. Another case relates to the leasing of mining equipment. Dalnick Metal leases mining equipment to small and medium-sized miners. This technology, apart from increasing productivity, has facilitated the manufacture of spare parts within the country, thus enhancing technological skills. Mobela Gems, a local firm, provides another example. The joint venture between local and foreign investors (50:50 share split), started operations in 1999 – cutting, polishing, shaping and selling gemstones. The foreign partners have managed to train local employees in gemstone processing, and the company now exports quality gemstones to the Democratic People's Republic of Korea, India, Thailand and the United States.

[8] For example, Barrick Gold Corporation has already spent over US$ 6.3 million to conduct on-the-job training for its 900 local staff. TANCAN Mining Company spent Tshs. 5 million ($4,500) between 2002 and 2004 to train 43 workers. In 2001 to 2003 Gem & Rock Ventures Company incurred Tshs 1.4 million ($1,270) in upgrading skills of its professional workers.

e. *Improvements of local community social-economic infrastructure*

TNCs also have a considerable beneficial impact on local communities where they operate. Driven by their corporate social responsibility (CSR) principles, mining TNCs are helping their respective local communities improve roads, health, education facilities and water supply systems. Expenditures on social-economic infrastructure are important in supporting the community's efforts to fight poverty at local levels (table 6).

Table 6. Mining TNCs' expenditures on community development ($)

	1999	2000	2001	2002	2003	2004	2005	Total
Education	61,431	196,929	338,886	435,179	177,183	824,276	1,131,977	**3,165,862**
Health	27,264	242,905	1,032,583	271,000	170,516	662,372	741,815	**3,148,454**
Water	2,054,866	3,307,440	1,306,420	120,494	83,999	378,965	1,298,276	**8,934,272**
Roads	2,015,193	3,255,230	807,157	381,778	51,213	311,407	2,417,900	**11,477,216**
Micro finance		46,133	-	39,668	13,139	5,120	46,917	**150,977**
Others[a]		1,023,720	161,999	272,267	585,363	2,403,047	4,472,789	**8,919,185**
Total	4,158,754	8,072,357	3,647,045	1,520,386	1,081,413	4,585,187	10,109,674	35,795,966

Source: Ministry of Minerals and Energy.
[a] Includes expenditures on such items as electricity, youth and HIV/AIDS programmes.

While the magnitudes, with a cumulative total of $35.8 million (table 6), appears small in relation to the investments of these TNCs, the impact could be high, partly because of the widespread poverty existing in most rural areas. According to a study by Phillips et al. (2001), perhaps the most important impact is the indirect benefits arising from the expansion of mining activities in these localities. The study shows that the liberalization of mining (and the subsequent expansion in mining activities) in Tanzania reduced poverty in rural areas in the 1990s on a scale far surpassing the impact of donor-funded job-creation efforts. Secondary business opportunities have been important in job creation in the vicinity of both large and artisanal mines. Miners and supporting communities need temporary lodging, restaurants, equipment and supplies provisioning, transportation, healthcare and other services.[9]

[9] The fieldwork conducted in 1999 in Southern Tanzania showed that hundreds of such businesses had been created by the recent mining boom, and that most had survived its downturn. Besides, a recent study by Tan Discovery found that the multiplier effect of mining activities is high, and that on average, one job in the TNCs' mines creates up to five more jobs, mainly though secondary business establishments.

There are other examples:

- AngloGold/Ashanti has made several social-economic investments in the local community worth $5.9 million between 1999 and 2005. These included support for education ($285,785), improvement of health facilities ($499,869), construction of a water pipeline from Lake Victoria to the Geita Gold Mine ($2 million) providing water to villages through several offtakes; and construction of the Kahama-Geita road ($2.6 million) that has opened up the Kahama-Geita corridor, benefiting surrounding villages, and support for microfinance ($115,677). In addition, 1,923 workers have been trained at a cost of $2.4 million;
- Placer Dome spent $3.5 million on local community activities from 2000 to 2005. The support included education ($287,609), health facilities ($69,835), water ($20,322), rural roads construction and improvement ($2,253,400), and other community contributions worth $893,323;
- SAMAX JV has invested in village water supply to the tune of $2.5 million;
- Williamson Diamonds provided support to surrounding local communities totalling $1.4 million between 1997 and 2005. This included education ($373,364), community health ($633,448), village water supply ($271,325), improvement of rural roads ($107,457), and other forms of community support ($10,945).

Although the contributions made to the communities are purely voluntary, neither the communities nor the Government perceive them as adequate, despite a lack of complete information on the benefits these TNCs are reaping from the mining sector.

f. Social impacts

Social impacts of mining TNCs on the surrounding communities can be both positive and negative. Some studies (Kulindwa et al., 2003), describe FDI mining operations as a "successful vehicle for social integration", arguing that such mining firms attract labour from all over the country. Mining communities, therefore, become more diverse than a typical Tanzanian village. As discussed above, some mining TNCs have launched specific social investment programmes (in health or education) to increase the "goodwill" of the neighbouring communities.[10]

10 Barrick Gold, which runs the Bulyanhulu mine through its subsidiary Kahama Mining Corporation, has established a fund to support various "charitable endeavors",

Two negative social impacts have been observed in mining areas in both local and TNCs mining areas, namely employment of child labour and HIV/AIDS. Assessments by the Government (2005) and Kulindwa et al. (2003) observed employment of child labour in mining. The main reason cited was the high level of poverty in these areas, which forces parents to send their children to work in the mines. According to George (2003), in small and large scale mining operations in the Geita District, 12.5% of the workforce were children. However, the same survey observed that "child labour is primarily a concern for small-scale mining operations, and very infrequently in large-scale mines" (George, 2003, p. 76). Children in this context are between the ages of 14 and 18, and their willingness and acceptance to work in the mines is due less to child labour employment and more to survival strategies arising from the lack of alternative employment or other income-earning opportunities.

The township or market segments that emerge from (or surround) the mining areas have often been identified with high HIV/AIDS prevalence. Several factors are attributable to this trend; most commonly mentioned from the literature are lack of awareness, a carefree attitude, widespread prostitution, and lack of access to quality health services (Kulindwa et al., 2003). The study by George (2003) in Geita mining operations also found similar problems that fuel the spread of HIV/AIDS. Granted, the problem of HIV/AIDS cuts across all sectors in the Tanzanian society and is not particularly tagged to the mining activities; however, such activities often provide an environment conducive to the wider spread of the pandemic.

g. Environmental impacts

The main challenge associated with mining in Tanzania is ensuring sustainability and integrating environmental and social concerns into mineral development programmes. Sustainable mining requires balancing protection of the flora and fauna and the natural environment against the need for social and economic development. It appears this trade-off is not being achieved; several studies have documented negative environmental impacts associated with small and large-scale mining in Tanzania (Mwaipopo et al., 2004; Kulindwa et al., 2003; Van Straaten et al., 2000; Appleton et al., 2004; Drasch and Boese-O'Reilly, 2004; Law Reform Commission, 2001). The 2001 Government Commission stated

which claims to be responsive to local needs and priorities (Barrick Gold Corporation, 2005). AngloGold/Ashanti has established a microfinance scheme with $115,677 seed money to assist small and medium enterprises access credit. Placer Dome has also established a fund to support local community activities.

for example, that "while it is true that small-scale mining endangers the environment, it is also true that large-scale mining is even more damaging" (Law Reform Commission, 2001, p.20).

Environmental risks do not result from TNCs' investments per se; rather, it is the large scale of their operations that is likely to raise some environmental concerns. For example, the survey by the Law Reform Commission observed that large-scale mining environmental concerns are linked to the breaking and exploding of rocks, which has been reported as a major nuisance to the local environment. The particular environmental issues concern land erosion and degradation, air pollution, water pollution, and noise pollution. According to George (2003), dust pollution in the area around the Geita Gold Mine has led to the pollution of drinking water sources of nearby villages. The mining firm currently supplies tap water to the local community (George 2003:71). Other impacts relates to deforestation (Kulindwa et al., 2003; George, 2003). Mining TNCs have made significant land clearance.[11]

The evidence on the environmental effects of large-scale mining suggests that mining communities may suffer a number of severe effects, ranging from direct and observable noise and erosion to longer term pollution of air, water and soil, which in turn may have serious health consequences. Nevertheless, the evidence does not allow for extrapolation, and more comprehensive analysis is required to obtain a clearer picture of the environmental implications of large-scale mining in Tanzania.

Despite the aforementioned problems, most mining TNCs in Tanzania comply with environmental standards, as set under the 1998 Mining Act. All TNCs have environmental management plans and conduct environmental impact assessments as condition for being awarded the special mining licenses. Environmental management plans include proposals for prevention of pollution, waste treatment, protection and reclamation of land and water resources and for the elimination or mitigation of adverse environmental effects.

The Extractive Industries Review (EIR) report undertaken between July 2001 and December 2003 challenges the view that TNCs are complying with this environmental requirement,[12] and questions

[11] For example, George (2003) reports that the Geita Gold Mine has acquired 110 square kilometres in Geita Forest Reserve, of which a significant proportion has been cleared for plant, housing and infrastructure.

[12] Given the importance and sensitivity of environmental effects on the sustainability of the mining industry, most companies have tended to conform to environmental policy

whether the World Bank's involvement in the extractive industries is compatible with its goals of promoting sustainable development and poverty reduction. In the report, the Bulyanhulu Gold mine was cited as "a premier example of where the involvement of multinational corporations in natural resource development had led to the further impoverishment, marginalization and violation of rural communities living in mineral rich areas". Nevertheless, anecdotal evidence so far in Tanzania does not give environmental standards the same (high) level of priority as the need for fair distribution of mineral revenues, not because they are not important but as a reflection of immediate needs for poverty reduction efforts (as environmental values are considered more of longer term impacts). The overall picture is an improvement of local community socio-economic infrastructure.

4. Policy

a. Investment and mineral policy

Tanzania has an open, investment friendly environment with adequate standards of investor treatment and protection. Overall investment activities are governed by the New Investment Policy of Tanzania launched in 1996 that was followed shortly by Tanzania Investment Act 1997. Within this overall policy, the mining sector has its own policy: *The Mineral Policy of Tanzania, 1997* and specific legislation; Mineral Act 1998, Petroleum Act and specific incentive structure; Fiscal Package 1998.

The mining policy is a result of economic reforms and restructuring efforts undertaken by the Government between the 1980s and 1990s. These reforms marked a clear shift in favour of private sector development and market-oriented economic management. In these new reforms, the role of government has been redefined from that of owning and operating mines to that of only providing policy guidelines, stimulating private investment and providing support for investment. Within this framework, the Tanzania Investment Centre was established in 1997 (for mainland Tanzania), and the Zanzibar Investment Promotion Agency (ZIPA), to act as one-stop investment facilitation and promotion entities.

or standards. So the issue is not whether or not a firm is pro-environmental standards but rather the extent to which these have been implemented.

b. Entry, licensing and establishment regulations

Foreign investors wishing to open and operate a commercial business venture in Tanzania must first be licensed as a business to meet the requirements of the Business Licensing Act 1972, administered by the Business Registration and Licensing Agency (BRELA), which is represented at the Tanzania Investment Centre. Enterprises seeking to invest in the mining or petroleum sectors are required to obtain registration and approval administered by the Ministry of Energy and Minerals. The procedure for licensing is simple and clear. Depending on the investor requirement, the following licenses are issued:

Prospecting license. A prospecting license is granted for an initial prospecting period of not more than three years, except in case of an application for a prospecting license for gemstones where the period may not exceed two years and is subject to renewal. A prospecting license covering a preliminary reconnaissance for all minerals other than building materials and gemstones may be granted for a period of not more than two years.

Retention license. The holder of a prospecting license may be granted a retention license for a period of not more than five years, and this may be renewed for a single period of five years. The idea is to grant a license for a holding period when an exploration programme and feasibility studies have identified the existence of a significant ore body, which cannot be immediately developed as a mine because of adverse market conditions.

Special mining license. A special mining license is granted in respect of the development and production stages of a large mining operation. The license may be granted for a period of not more than 25 years or the estimated life of the ore body, which it is proposed to mine, whichever is shorter. Once application has been duly made, it may be renewed for a period not exceeding 25 years. Applications for special mining licenses must be accompanied by the following documents:

- Proposal of mining operations;
- Environmental Management Plan;
- Proposal on employment of citizens of Tanzania; and
- Environmental Impact Assessment.

Once the application is received, it is submitted for advice to the Mining Advisory Committee, which is chaired by the Permanent Secretary, Ministry of Energy and Minerals, and include representatives from civil society organizations (Tanzania Chamber of Mines), and technical staff of the Ministry, before issuing of license. A special mining license confers on the holder exclusive rights to carry out mining operations in the mining area and to dispose of any mineral product recovered.

Mining license. A mining license is granted for the development and production stages. The license may be granted for a period not exceeding ten years or the estimated life of the ore body, whichever is shorter. The license may be renewed for a period not exceeding ten years. The application is submitted with a feasibility study, environmental management plan, and environmental impact assessment.

Gemstone mining license. This is granted for a period of ten years, renewable. All applications are accompanied by proposed mining activity, environmental management plan and environmental impact assessment.

c. Fiscal provisions

Input taxes. Import duty, value-added tax (VAT) and excise duty are exempted for mining equipment and supplies directly related to the mining operation up to one year after the start of the operation. A cap limit of 5% customs duty on imports of capital equipment and supplies apply thereafter. VAT on domestic sales is 20% and zero-rated VAT in exports. VAT paid is fully recoverable and there is full relief from VAT for services or goods exclusively for mining activities. Mineral rights holders are exempted from paying withholding tax on goods or services supplied by them. Withholding tax on technical service payments to subcontractors is 5% to residents and 15% to non-residents.

Other taxes. Royalties are charged on the net book value of the minerals sold at the rate of 3% for gold and other minerals, and 5% for diamonds and other gemstones. However, in order to promote value-added activities and reduce smuggling, no royalties are charged on cut and polished gems. There is no export tax or stamp duty on sales of minerals. Corporate tax on income from mining activities is 30% of the net income of the corporation, which is the standard determined from all types of investments in Tanzania.

d. Standard of treatment and profit repatriation

Policy priority in Tanzania is to treat foreign investors on a par with domestic investors. The provisions of the 1997 Act apply to both foreign and local investors without distinction, with the important qualification that the benefits and protection to be accorded by the Act to a foreign investor require a minimum capital investment of $300,000 but are extended to a local investor on a capital investment of $100,000.

Under Section 21 of the 1997 Act, FDI projects with a certificate of investment are guaranteed unconditional transferability of FDI-related payments abroad through any authorized dealer bank in freely convertible currency. This covers FDI remittances of net profits and dividends; service charges for foreign loans; royalties and technology transfer charges; the proceeds of FDI liquidations or sale of capital assets in Tanzania; and salary payments to expatriate staff employed in Tanzania by the registered foreign company. Tanzania does not have exchange control restrictions, and the foreign exchange payment framework is held by most FDI executives to be strongly supportive of FDI. According to UNCTAD (2002), the exchange regime "is probably the most important single factor contributing to the striking improvement in the investment climate that has taken place in recent years".

e. Expatriate labour and immigration

The Immigration Act 1995 and Financial Laws Act 1997 assign the management and administration of expatriate employment to the Tanzania Investment Centre. In Zanzibar, this responsibility is vested with ZIPA. The provisions allow automatic employment of five non-Tanzanians and additional expatriates can be requested from Tanzania Investment Centre if the need is felt by the investor. Decisions for extra expatriate employees are reached with little delay where there are no qualified Tanzanians for a particular skill category.

f. Investor protection and dispute settlement

Section 22 of the 1997 Act provides that no business enterprise shall be nationalized or expropriated by the Government, and that no person who owns, whether wholly or in part, the capital of any business enterprise shall be compelled by law to cede his interest in the capital to any other person.

The 1997 Act contains provisions (section 23) for the negotiation and settlement of disputes among Tanzanian and foreign enterprises,

Tanzania Investment Centre and the central government. Where the preferred amicable settlement via negotiation between the parties is not achieved, the parties may then seek agreement through the arbitration laws of Tanzania, through the International Centre for Settlement of Investment Disputes or within appropriate bilateral and multilateral treaties. Zanzibar has similar provisions. To date, there have not been any disputes in the mining sector involving FDI investments.

g. Distribution of mining revenue and transparency

Except for the fiscal requirements stated above with regard to royalty and other taxes, Tanzania does not have policy or legal requirements on how mining revenue should be shared between the investor, the central government, local government and local communities. Neither mining TNCs nor Government or other stakeholders have taken initiatives to frame policies on rent distribution that would be beneficial to all parties, including concerns for future generations. The mining policy states that "there is no legal obligation for the State to participate in either mining ventures or requirement for local equity, except in gemstone mining, which requires Tanzanians to have not less than 25 per cent shares in gemstone mining and trading licenses". As a result of lack of a clear and adequate revenue-sharing mechanism, it is estimated that revenues to Government from FDI mining operations are a small (1.2%) share of total government annual domestic revenue. Likewise, the philanthropic contribution to the local communities is considered as negligible.[13] Until the last two years or so, there have not been any specific efforts or attempts to introduce laws and policies to improve distribution of mining revenues, as greater policy priority was placed on attracting TNCs to the industry.

In an attempt to redress the imbalance in mining revenue sharing, the Government recently announced the need to review mining contracts with the goal of ensuring that "mineral resources in the country benefited the investor, the government and local communities".[14] In his announcement, President Jakaya Kikwete cited two TNCs that had successfully concluded review agreements to that effect – Barrick Gold Corp and Resolute Tanzania. In particular, the reviewed agreements will enhance compensation for people who are evacuated to make way for mining activities and provide more revenue to Government through

[13] Note that detailed and reliable data on profits of the companies were not readily accessible for our purposes.

[14] *Daily News*, 9 February 2007.

payment of agreed taxes, including royalty and corporate tax. This is a short-term measure. There is a need to review current policy to ensure that mining resources are mutually beneficial to investors, Government and local communities, and take future generations into account.

Tanzania has made some progress in reducing corruption since 1996, when a presidential commission led by Judge Warioba produced its (*Warioba*) Report.[15] It is implementing a National Anti-Corruption Strategy and has strengthened the institutional framework – notably through the Finance Act of 2001 and the Public Procurement Act of 2002 – and has adopted a clear zero-tolerance position on corruption.[16] Nonetheless, allegations are being investigated by the country's anti-corruption bureau (PCB) concerning matters related to issuing mining contracts (both local and foreign) and misappropriation of revenue (with regard to the Gold Assayer Alex Stewart).

The current policy framework in Tanzania is not adequate for sound management of natural resources and the mitigation of negative externalities. Presently applied instruments for revenue generation do not address externalities, nor are they used as instruments to capture rents from natural resources in a transparent manner. Rather than employing fiscal instruments to steer the exploitation of resources, there is, allegedly, tax evasion within the mining and other sectors, denying the Government much-needed financial resources for implementing plans and development strategies. The Government has directed PCB, the Tanzania Revenue Authority (TRA) and the Controller and Auditor General (CAG) to take legal measures against any accounting officers and firms/individuals found misappropriating Government revenue. The issue of corruption has been addressed at the macro level by strengthening both the legal and institutional aspects of the anti-corruption bureau (PCB).

h. Environmental protection

Tanzania is becoming increasingly aware of environmental consequences that have adverse effects. In this regard, the National Environmental Management Council (NEMC) has been established to provide guidance and advice on environmental issues. The present

[15] See Economic and Social Research Foundation (ESRF) and Front against Corrupt Elements in Tanzania (FACEIT) (2002) for a general summary of the Warioba Report and progress against corruption over the past decade.

[16] Economic and Social Research Foundation (ESRF) and Front Against Corrupt Elements in Tanzania (FACEIT) (2002).

regulatory framework for environmental protection is the National Environmental Act of 1983, which is undergoing review. Tanzania has draft national environmental impact assessment guidelines and requires all mining operations to prepare environmental impact assessments for their investments. All FDI mining investments follow good environmental management practices, and two have won the "Presidential Environmental Excellence Award" – Resolute (Tanzania) or Golden Pride Mining located in Nzega and Geita Gold Mine. Geita Gold Mine Company has also demonstrated environmental excellence by achieving the ISO 14001 international standard for environmental management.

The laws and regulations have not been fully implemented because NEMC, the organization in charge of environmental issues, lacks legal powers for enforcement, as it plays only an advisory role. The draft bill under preparation since October 2006 is expected to give NEMC legal powers to enforce laws and regulations as well as establish a National Environmental Regulatory Body tasked, *inter alia*, with reducing or eliminating the adverse environmental effects of mining; improving health and safety conditions in mining areas; and addressing social issues affecting women, children and local communities.

5. Conclusions and recommendations

Tanzania is richly endowed with mineral resources. Since the mid-1990s, the mining sector has been the fastest-growing sector in the economy, following liberalization of the economy and adoption of favourable investment policies and a general regulatory framework coupled with specific measures for the mineral sector. The period has seen increasing inflows of FDI and a rapidly growing presence of TNCs in the mining sector, with an overall positive (albeit limited) impact on the economy and negative implications for the environment. The key conclusions from the case study are as follows:

a. Tanzania has been successful in attracting TNCs to the mining sector, among other reasons due to its attractive investment policy with lucrative incentives.

The case study lists several TNCs that have successfully established operations in the Tanzania's rich mining sector. Together, the TNCs have invested over $1,376.3 million in Tanzania's mining sector over the past ten years.

b. The TNCs mining investments are having a development impact, but the impact is limited in size and to specific areas.

Three issues are notable in examining the impact of TNCs on Tanzanian mining. First, the impact on export revenue, employment, technology, skills and knowledge, and Government revenue is significant in relative terms, given the low base from which the industry grew from in the late 1990s. Second, regardless of its share of revenues accruing to the TNCs, and the social cost of the environmental degradation associated with the mining operations, the value of the impact of contribution by mining TNCs on local communities is notable, given the high demand for various socio-economic services and infrastructure.. Finally, the developmental impact of FDI in mining is further eroded by its lack of substantial economy-wide multiplier effects, as would be suggested by the "trickle-down" theorem. However, this is purely a policy failure argument in that the obvious lack of significant linkages to the rest of the economy arises mainly from weak supply capacity and an incomplete supply chain owing to low level of industrial development, a shortage of skills and poor infrastructure. Based on various anecdotal evidence, the economy's failure to benefit significantly from the industry (and particular TNCs) underlies the basis for public pressure to revise the mining (investment) policy to provide an avenue for increasing mining royalties and discouraging exports of raw (uncut) minerals.

c. The various social and environmental concerns, although not specific to TNCs mining operations, are key as far as reviewing their sustainability and mining policy is concerned.

First, there is a growing prevalence of HIV/AIDS infection in communities surrounding the mines. Mining operations have indirectly contributed to the growth of small market towns with young affluent men and women, increasing the risk of spreading the epidemic. This HIV/AIDS problem, however, cuts across all sectors in the Tanzanian society, threatening to slow economic growth and wipe out gains in life expectancy achieved in the past decade. Second, several studies have observed employment of child labour in both small-scale and large-scale mining operations. This is contrary to Tanzanian law and international practice on decent work. Environmental concerns relate to land erosion and degradation, air pollution, water pollution and noise pollution (linked to breaking and exploding of rocks). All TNCs have conducted

environmental impact assessments and some have even been awarded the ISO 14001 international standard for environmental management, although much remains to be done to eliminate adverse environmental effects as a way of achieving sustainable economic development.

d. Tanzania's mining policy and legal framework is highly attractive to TNCs but less so to local mining companies.

Tanzania has an open, friendly investment environment with adequate standards of investor treatment and protection. The new open-door policy has added Tanzania to the list of countries that earn improved treatment by international insurance agencies. The fiscal regime is also overly pro-investor, without adequate provision for fair and equitable distribution of the benefits of mineral resources between investors, Government and local communities.

More importantly, in Tanzania, local investors in the sector feel largely neglected by the policy, as they claim to receive relatively fewer incentives. Two conclusions are worth noting in this case. First, however attractive, the provisions offered to foreign investors are not applicable to domestic investors – and are deliberately made to promote increased flows of foreign investment and their benefits to the economy. Second, size matters when accessing or qualifying for certain (lucrative) fiscal incentives. Compared to the TNCs, domestic investments are far smaller in terms of value and most of them are artisanal, as a result of which they fail to qualify for such incentives. In fact, others have grown to the threshold level but are not yet sufficiently large to receive similar incentives as TNCs. So the incentive system, while attractive, consists of deliberate fiscal measures that cannot be provided to achieve equity but rather certain economic goals. Nevertheless, put together, domestic investors make up a significant proportion of the industry; although they have smaller per unit value, they have a substantial impact especially with regard to re-investment of mineral revenue in the economy, tax revenue and employment.

Based on the above conclusions, the following broad recommendations are made.

(i) Review mining policy and laws to provide for fair and equitable sharing of mining resources

Since the mid-1990s, the mining sector has been the fastest-growing sector in Tanzania, fuelled largely by mining TNCs. However,

the sector's effectiveness in playing the role of an engine for growth and poverty alleviation is limited by its weak linkage with other sectors of the economy and the low level of private sector development in the country. One feasible way to address this problem is to hasten the ongoing review of mining policy and laws to provide for more fair and equitable sharing of mining benefits between investors, Government and local communities. First, the review will ensure honest recording of mineral revenue and revision of royalties. Second, the Government should engage in further dialogue with TNCs and other mining companies to retrospectively consider reinvesting part of their profits in the country. Finally, it should provide a framework for better and more effective adherence to corporate social responsibility principles.

(ii) Promote value addition from mining outputs

Currently, very little of the mineral ore recovered is processed in-country. As a result, the country remains a primary producer and exporter, earning low returns compared with sales of processed produce. This also reduces leakages with the local economy and transferability of technology. Encouraging value addition should also become an avenue for increasing employment and holds greater prospects for Tanzania's mineral resources to play a key role in the development of the economy. Achieving this, however, requires building the capacity of Tanzanian industries so that more value-added processing can take place within the country. Ongoing initiatives to empower Tanzanians (entrusted to the newly reformed Ministry of Planning, Economy and Empowerment) through private sector development, promotion of SMEs, further investment infrastructure and business environment strengthening are measures in the right direction.

(iii) Increase TNCs' linkages to the domestic economy

Mining TNCs may have positive effects for local communities through improvement of basic infrastructure. However, there is no indication that the expansion in the mining sector triggers significant growth in the local economy, partly because TNCs' mining operations are generally detached from local supply chains. Creating avenues for domestic investors to enter into partnerships with foreigners in the ownership and management of companies could improve linkages with the local economy. One way of doing this is to institutionalize joint-venture partnerships between TNCs and local owners of mining land and to let local authorities administer mining licences directly, so as to forge

partnerships between companies and local government and encourage them to retain a substantial share of licensing revenue.

(iv) Conduct strategic environmental impact assessments

Most TNCs' mining properties are located within the Lake Victoria Basin. Current practice is for each investor to conduct an independent environmental impact assessment for its project. Such assessments are likely to miss out the cumulative impacts associated with mining operations around the lake. A strategic environment impact assessment for the entire Basin would more effectively integrate the environmental, social and economic impacts of mining projects in the area. In addition, a strategic environmental impact assessment could facilitate strategic decision-making, including spatial planning; improve the quality of policies, plans and programmes, and ultimately foster the sustainable development of the Lake Victoria Basin and mining sites.

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Annex: Tanzania Development Vision 2025

The Government of Tanzania hopes to have created a stable, peaceful, middle-income country that cherishes shared growth and improved living standards for its entire people. The overall long-term development goals aim at the following:

- Attaining a high rate of economic growth (averaging 8–9% per annum);
- Satisfying the basic needs of the people, eradicating poverty and attaining economic and social justice by giving all citizens equal employment opportunities while paying special attention to gender balance;
- Promoting good governance, democracy, the rule of law, integrity and moral uprightness so as to promote and sustain peace, political stability, national unity and social cohesion;
- Ensuring sustainable exploitation and use of all natural resources for the benefit of current and future generations;
- Achieving the highest level of ingenuity, self-confidence and self-esteem by building a self-reliant nation whose way of life reflects its own history, culture, resources and aspirations.