SPECIAL REPORT

New forms of accumulation in Tanzania: The case of gold mining

By Chachage Seithy L Chachage

In this article Chachage Seithy L Chachage shows that the legal framework and attitude towards private investments in Tanzania over the years has been favourable.

"It is obvious," he argues "that the World Bank's thesis that mining in Africa was hampered by controls and inappropriate policies is based on false premises. It rests at the very least on confusion between mining in general and mining by very large scale foreign private companies."

The article was prepared for a research proposal review workshop on structural adjustment and social change in Africa, held in Lesotho November 1992 as a part of the Scandinavian Institute of African Studies Research Programme 'The Political and Social Context of Structural Adjustment in Sub-Saharan Africa'.

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Structural Adjustment Programmes (SAP's) in Tanzania have been designed since early 1980's as a means to combat the balance of payments crisis and resolve the socio economic crisis which started facing the country in the early 1970's. However, the performance, as the government was to admit by 1990, had been disappointing. Commodity export earnings, which financed less than one third of the imports by 1985, had remained at almost the same level. As far as the exports were concerned SAP had witnessed some changes however.

As a result of this stagnation in export performance, the balance of payments deteriorated further over the years. From a deficit of 539 MUSD in 1982 it reached 3 431 MUSD in 1984 and rose further to 4 918 MUSD by 1989.[1]

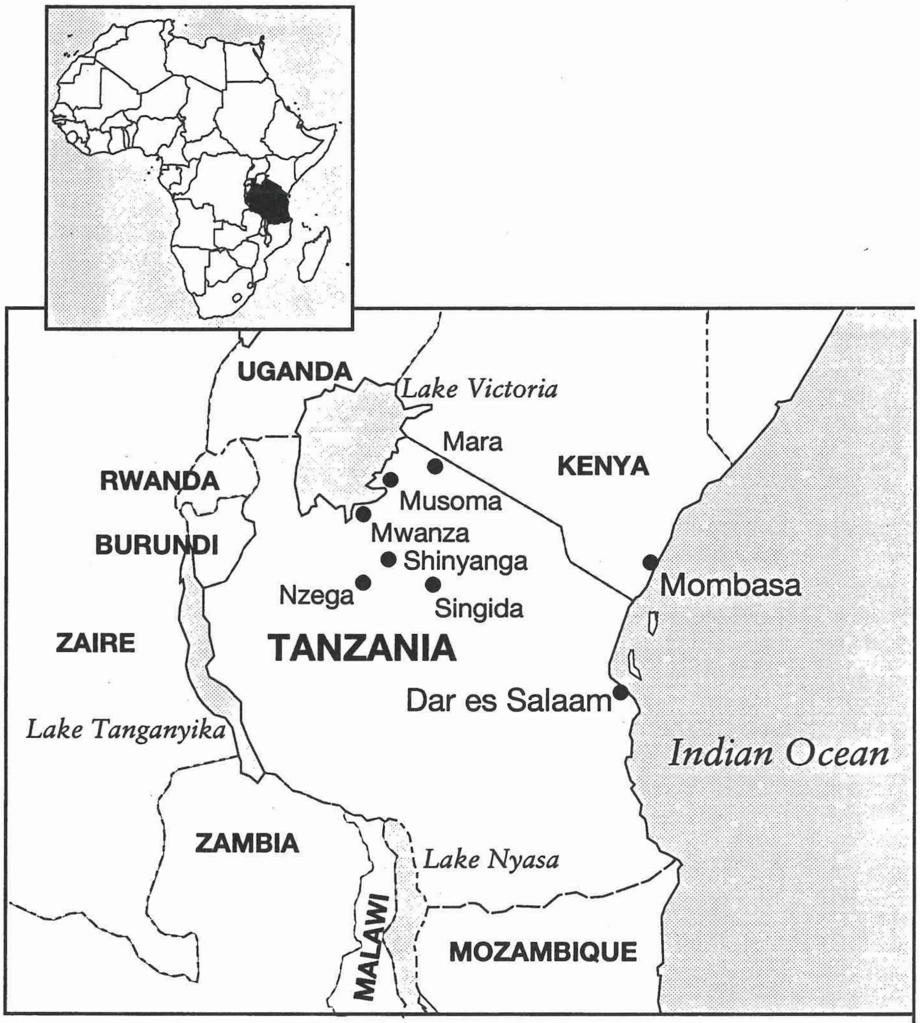
Tanzania has become one of the countries with the largest debts in southern Africa. On the other hand official GDP figures show an average growth rate of four per cent annually since 1986 and official inflation rate had dropped to 20 per cent in 1990 from 30 per cent in early 1980's (although it somehow rose again to 27 per cent in 1991). GDP growth is partly a reflection of increased donor support. External assistance to the country increased from 287 MUSD (1985) to 680 MUSD (1986) and 850 MUSD (1989). About 47 per cent of this came in the form of import support. Donor funding as a per centage of the GDP rose from its lowest point of 13 per cent in 1983 to 38 per cent in 1987[2].

More fundamentally, as it is noted by the World Bank[3], the growth in GDP has resulted from the unification of official and 'parallel markets' under liberalization, especially through the inauguration of the 'own funded import scheme' since 1984 The scheme had eased significantly the import compression of the previous years.[4] Significant to note, for example, is the fact that while official commodity export value was 424 MUSD and imports were worth 1 380 MUSD in 1989/90, imports through the 'own account' scheme were worth 638 MUSD by 1988. Imports through this scheme grew to 35 per cent of the total between 1984 and 1988 and reached almost 50 per cent by the end of the decade.[5] As a result of this scheme, registered import/export companies' number rose from 104 in 1980 to 1 787 in 1986.[6] Within this context, some growth in the official GDP figures had already taken place by 1985: it had grown from zero per cent growth in 1983 to about three per cent in 1984 and 2.3 per cent in 1985.[7]

The difference in the scenario is, while over 70 per cent of the export earnings in 1985 were generated by the six traditional crops, by 1989 non-traditional exports accounted for about 44 per cent – they had more than doubled within this period.[8] The question is: What are these other exports which seem to have more value than the traditional exports and in which way are they produced?

There is evidence[9] that real (and probably ecologically irreversible) 'growth' has been evident in wildlife products (traditionally ivory but now crocodile skins, ostrich and other exotic birds), forest products (timber, black woods, mangrove, mahogany, medicinal plants, etc), marine products (prawns, lobster, béche-de-mer/sea slugs etc) and mineral products. A partial shifting from illegal to legal circuits has occurred in each of these areas, especially minerals, giving for the first time a semblance of an indication of the significant scale of activity in this sector. Despite the fact that the majority of gold and gemstones continue to be smuggled illegally, the mining sector's official growth was 18.7 per cent in 1990 compared with an annual growth rate of 1.1 per cent in 1989. It was in this sector that Tanzania's highest economic growth was registered.

Alongside these activities has also been the growth in incidences of drug trafficking whereby, between 1986 and 1991, there were 468 Tanzanians netted abroad for this offence and 19.7 t of bhang were impounded in 1991 alone.[10] There is an inextricable linkage between these booming new exports and the ongoing significance of the 'own funded import scheme'. The



The map shows some of the gold-mining communities of northern Tanzania, as mentioned in the article.

former, recorded and unrecorded, fund the latter, as well as unknown level of unregistered imports also. Liberalization has resulted in the expansion of combined legal/illegal import/export trade and conditions whereby previously mainly legally-marketed commodities can enter illegal circuits, and illegally acquired goods can enter the market legally.

The objective of this study is to examine the specificity of this apparently increasingly central form of accumulation of capital in Tanzania through analysis of one of the main elements, gold mining. Until recently this activity has hardly attracted any attention. Except for diamonds, in the past the mineral sector has been considered unimportant, although it has been admitted often that the country is potentially rich in minerals.

Official figures state that in 1988 mining provided only 0.5 per cent of GDP and 0.8 per cent of formal wage employment – i.e. 8 500 people.[11] Yet two years later gold had become one of the major official foreign exchange earning commodities following the adoption of a government policy of buying gold at parallel market rates. Officially purchased volumes increased from 116 000 grammes (1989) to 1.65 t in 1990, 3.6 t in 1991 and 7.24 t for the first half of 1992. At a value of 29.2 MUSD in 1991, the official export value of gold has surpassed the value of coffee (the major official export). All this is despite the fact that at least 50 per cent of gold produced in Tanzania continues to be smuggled out. Moreover, recent revised estimates indicate that the number of people involved in gold mining is actually greater than the combined number of employees in the public and civil institutions.

Since the late 1980's the World Bank has belatedly acknowledged the role of mining in the structural adjustment in countries like Tanzania. However it has completely misread the content and significance of this role. There are several aspects of this misreading. In the first place investment and production in African mining is said to have spectaculary declined in the 1980's. Secondly, this 'decline' was identified with falling levels of foreign direct investment as a result of state restrictions and controls of such activities, cumbersome regulatory procedures, unattractive taxation arrangements and unstable macro-economic performance. As a result of this, Sub-Saharan Africa is said to have missed the benefits of the boom in prices of minerals in the 1970–80's. Currently also, Africa needs to create an 'enabling environment' for mining industry which will make possible the existence of partnership between foreign private mining companies which have the capital and expertise and the host governments:

"Taking a minority interest in new ventures is sufficient for governments to keep abreast of mine developments and protect the national interests. All this will require African governments to rethink their roles and their policies for the mining sector. The main elements of an enabling environment relate to foreign exchange regime, taxation, repatriation of profits, and the regulatory and institutional framework. By financing specialized advisory services, the donor community could help African governments to negotiate technically sound and fair mining agreements."[12]

Thirdly, the only 'success story' in African mining during the decade is said to have been Ghana, precisely because it has adopted policies of this kind. After the introduction of a new investment code, set of taxation rules and regulatory framework after 1986, recorded gold production rose from 277 000 ounces (1983) to 400 000 ounces (1989), reflecting expanded interest and investment by foreign private capital. In fact all these positions are erroneous. As will be shown, while foreign private direct investment certainly declined in Tanzanian mining during the 1970's. and 1980's, this was by no means identical with a decline in production. A thriving unrecorded gold industry emerged on a huge scale. More recently, moreover, Tanzania too has adopted an 'enabling environment' for foreign private investors, but in the mining sector its effect will, if anything, depress production levels.

Theoretical background

Studies of the Tanzanian experience of an extremely deepened socio-economic crisis since the late 1970's have typically focused on the relevance of the 'socialist' moves initiated in 1967 and the specifics of their outcome. Most studies have taken to task the state policies and ideology pursued as the root-cause of the crisis. Radical studies regarded the crisis as a result of the 'unscientific' nature of these policies and ideology which rejected 'proletarian ideology and leadership', resulting in enhanced dependence on international capitalism and the entrenchment of 'bureaucratic bourgeois' interests.[13] Acceptance of IMF conditionalities was regarded as an attempt to consolidate this state of affairs. Correspondingly, the IMF/World Bank project was also viewed in terms of class interests, whereby it was seen as an attempt to stimulate exports to enable repayment of debts and trade liberalization as an attempt to increase northern exports.[14]

However, within this perspective, certain authors have also emphasized that the recent economic liberalization process has marked a considerable shift in types of economic activities occupying centre stage in Tanzania. While insisting that 'socialist' Tanzania was all along capitalist, Shivji[15] argues that with 'post socialism' there has been a rehabilitation of the 'former saboteurs' and that "in an immediate sense adjustment manifests itself as trade liberalization based on parallel market economy; an economy of smuggling, on the one hand, and dumping of consumer commodities, on the other..."

A different form of discourse, which emerged almost concurrently with the above one, viewed the crisis in terms of Tanzanian state policies and ideology having succeed in 'retarding the development of capitalism' in the countryside by reducing the rural capitalists to 'middle peasants'. These studies marshalled the theoretical edifice of Lenin's criticism of the Russian Narodniks and Bill Warren's criticism[16] of the Dependency School. This tendency regarded the 'socialist' policies as lacking any proper class economic foundations and viewed capitalism as still having a progressive role to play.[17] In a similar vein were the criticisms of Hyden,[18] who viewed the crisis in terms of the failure of the state to create markets which could 'capture the peasant', who instead 'voted by the feet' to the 'economy of affection'.

A third, not unrelated position, which also privileges the role of 'socialist' policies, was articulated from the late 1970's by the World Bank and others. This identifies 'socialism' with the privileged of the state sector in Tanzania, at the expense of the peasant one, and with the effects of mismanagement, inefficiency and bankruptcy. For this position 'socialist' economic policies should be permanently replaced by capitalist ones, rather than postponed until the time was ripe.

Support for liberalization and operation of the market forces to determine the allocation of resources rather than the state began to gain ground by early 1980's among local economists and some sections of the government bureaucracy. It was expressed ideologically in terms of defense of the welfare of the majority of the peasants. Theoretically it drew some support from the stance which viewed the crisis in terms of 'retarded capitalism' and the 'economy of affection'. Studies by the ILO , Ellis, Hanak and others[19] provided the empirical facts on the decline of the terms of trade for agriculture. Initial local ideological expression of this position was articulated by Candid Scope[20] who advocated reforms to allow greater scope to private enterprises and private accumulation, basing himself on different textual interpretation of Nyerere's ideas of 'socialism'.

Constraints to the fully fledged adoption of this position within the state in the early 1980's were expressed in continued rhetoric about the 'enemies of socialism from within', and suggestions that it would be the Asian bourgeoisie whose business interests had been expropriated who had the the experience and international connections to most benefit from market solutions.

This third position was eventually consolidated by the burgeoning studies on the operations of the 'informal sector' or 'second economy'. Bagachwa concluded[21] that the development of this sector reflected survival mechanisms by informal entrepreneurs themselves mainly low income earners, given the failure of the official economy to provide sufficient incomes.

The development of the sector was a reaction to the 'pathology of the state' from both urban and rural dwellers. The 'second economy' emerged as a result of the economic crisis, inefficient government regulations which stifled formal economic activities, failure of legal institutions and control mechanisms and failure of agriculture to support the rapidly growing population. Its most significant features however were said to be its dynamism and efficiency. The 'second economy' showed what capitalism in Tanzania could actually achieve, even in the face of supposed obstruction and persecution by the state.[22]

In this connection, Tripp[23] was of the view that individual strategies for survival and pressures "from below through parallel marketing system ... laid the basis for many of the liberalization measures that the state adopted later." Therefore, the 'informal economy' was a catalyst for change as it forced a "redefinition of the boundaries of state control." The state gradually recognized the "way people go about procuring a livelihood." Activities in the 'second economy' were conceptualized as "adaptations to social or market forces working towards societal harmony or equilibrium".[24] Liberalization measures thus came to be depicted as embodying some kind of popular content.

Most of these studies have thus imputed an essentially political nature the 'second economy' and its role in social and economic change in African societies.

MacGaffey's definition[25] of 'second economy' while not necessarily insisting on the illegality of these activities in relation to the state, nonetheless equates the tendency of these activities to avoid taxation and deny the government revenues with the significance of an "initiative from below", and as an "autonomous form of accumulation" which provides means of survival can become sources of accumulation of wealth to be [re]invested in productive enterprises.

As in the studies by MacGaffey, Bates, Kasfir, Rothchild and Chazan, and so on[26], reconceptualization of state/market relations in terms of the existence of the 'second economy', 'informal sector', 'parallel markets', etc is aimed at demonstrating that the principal policy reforms which could overcome the crisis need to harness the energy of those activities and to politically rehabilitate them. In MacGaffey's formulation[27], studies which include the 'second economy' have "important implications for international aid donors, for potential investors, both foreign and national, and for government planners."

The inevitable consequence of this position is to suggest the crisis can be resolved by 'good governance' and more appropriate policies. Bad policies, and failure to manage the economies or the behaviour of the producers are taken to be causes, rather than mere symptoms which demonstrate the existence of a problem. However, as Roitman[28] has correctly observed:

"Because production and trade are social acts, it is not sufficient to examine how market forces make workers out of people, because social formations (which are constantly redefined by capital, the state, and producers themselves) determine which choices and alternatives within the productive process are themselves legitimate. Since social structures are the loci in which relations of production and power in society are formed, they therefore determine specific patterns of commodification."

In a nutshell, various productive relationships constitute a system: they are not simply a set of altenatives from which people choose. Such choices are a mythology, since individuals/groups are not equiped with the same chances given the forms of exploitation and domination "which control, propagate and/or resist capital...".[29]

It is the dualism and idealism of the 'second'/ 'parallel'/ 'informal' economy thesis which needs to be challenged if any proper understanding of the nature of African social formations – or the African economic crisis – is to be reached. As Bangura and Gibbon[30] have noted, this position "posits two contrasting models of resource allocation with different structures of opportunities – one based on state interventions leading to price distortions and economic rents for a privileged few; and a second based on free competitive markets which allocate resources optimally." Moreover, all analysis of unrecorded economic activity revolves around its supposed 'non-stateness'. Ruling-class formation is thus seen as occurring only in and through the state, while the existence of a class of 'autonomous entrepreneurs' is postulated outside it.

Mamdani in Uganda and Gali in Guinea Bissau[31] have actually demonstrated that the groups involved in the 'second economy' do not occupy separate market and production systems; rather, they are part and parcel of an entire system of production, exchange and distribution around which particular forms of social and political relations are embedded. 'Informal' or 'second' economy channels of accumulation and power are just as much a product of the post-colonial state given their symbiotic relationships. Critics of the International Labour Organization when it popularized this duality demonstrated that social relations, whether in the formal or informal sector were differentiated around the control and access to the means of production, transformation of the labour process and the forms of accumulation.[32]

This means that in both the recorded and the unrecorded economy there are various forms of contradictory relations, exploitation and oppression. On the one hand, also found within both of them – albeit in highly subordinate forms – may be elements of social differentiation with progressive implications, i.e. involving the formation of indigenous private capital. A danger with the use of terms such as 'accumulation from above' and 'accumulation from below'[33] to refer to these is that it tends to suggest an alternative form of dualism, however. Such types of accumulation may indeed be properly identified, but as contradictory tendencies of a single system rather than as physically seperate economic systems.

To explain what constitutes the mechanisms, the conditions of existence or the nature of the crisis in Tanzania and any other social formation, is to explain these contradictory tendencies in the process of accumulation. If one removes dualism, then it is clear that the crisis in Tanzania, as elsewhere in Africa is a result of the nature of private accumulation through the state enterprises and also outside them. It is activities in the so called second economy – embodying these forms of accumulation – which have resulted in the crisis rather than their emergence having resulted from the crisis. For example, it is these forms of accumulation which are responsible for the fiscal crisis, and the collapse of sources of state revenue (taxation) as they systematically deprive government of sources of revenue. As Mamdani[34] has observed, fiscal crisis relates to the question of revenue and not only expenditure.

It has also been observed that in Uganda and Guinea Bissau liberalization and the outpouring of loans and grants from the donors in the name of supporting an 'enabling environment' for private entrepreneurs has ended up encouraging non-productive rather than productive activities and that the major beneficiaries are the members of the state class and the traditional bourgeoisie with increased subordination of production to merchant and commercial control.[35] Thus adjustment has generally strengthened existing accumulation forms, partly through a process of legitimization but largely through increasing levels of liquidity available to them.

On the other hand, adjustment also has certain other consequences. For example, by creating a situation in which certain forms of foreign investment become easier it may lead to certain forms of competition with the dominant local accumulation form. In sum, in this process, changes in the balance of forces between different contradictory elements in the local accumulation form may be effected. An examination of gold mining in Tanzania demonstrates the importance of these considerations.

Gold mining in Tanzania

Mining activities in Tanzania are historically traceable to the pre-colonial period. Most known activities at the time consisted of mining and working on iron, copper and salt. Gold, unlike the other minerals which were primarily exploited by Africans, was being exploited to some scale by the Arab traders.[36] With the establishment of German colonial rule, other minerals which were discovered in economic quantities were mica, garnet, coal and uranium.[37] The recovery of gold and garnet in scattered operations were the principal mining activities in the early years of colonization undertaken by German diggers.

British rule (1918–61) was associated with an intensification of mine prospecting. Mining laws were enacted in 1921 and 1929. A Department of Geological Survey was set up in 1923. The 1929 law was designed to discourage small scale 'enterprising individuals'. It was introduced to control the accelerated gold rush which began to take place around this time and discourage the emergence of a 'class of poor whites' as Secretary to Native Affairs, P E Mitchell used to cynically call settlers and diggers who eked out a bare subsistence. The colonial government was in favour of bigger concerns, and large scale companies based in Britain and South Africa began to take interest in gold mining Tanzania by 1928.

Small mechanized gold mining operations had been operated in Musoma and lake Victoria districts and along the Lupa river near Lake Rukwa since 1921. The latter had become the country's chief source of gold by the mid 1920's. Even before the large scale companies could set up their operations, the 1929–32 economic slump and droughts resulted in the decline in the production of alluvial gold. The economic slump discouraged the large companies, who in any case were facing stiff competition for labour and resources from the small miners as the law failed to stop their activities. Two hundred Europeans from Zaire, Zambia and within East Africa flocked to the Lupa to prospect and dig gold in 1931 alone, and were followed by hundreds more in the next four years. According to the mines inspector, they arrived in Lupa by "bicycle, on foot, riding on donkeys, or anything on four wheels which could be induced to move".[38]

With this gold rush by the small miners, there was a doubling of production by 1932 and it continued to rise until 1936. By the second half of the 1930's. there was an introduction of dry blower machines by small scale gold miners, therefore this allowed production of gold during the dry season as a continuation of alluvial production during the rainy seasons. However, by this time the gold rush had already subsided, as many of the diggers were able to find more reliable sources of incomes in other sectors and alluvial gold production was increasingly being replaced by reef mining. Big capital had renewed its interest in gold mining again.

Senkenke, in the Lake Victoria area, became the most important gold mine in the late 1930's. It had been taken over by the South African Central Gold Mines company in 1928 although it was not developed until later. Other South African and British mining companies which undertook development in Musoma and Mara areas included Tanganyika Diamond and Gold Development Co (South Africa), Anglo-Transvaal Consolidated Investment Co (South Africa) and South Nyanza Development Co (British). There were also some Asians from within the country and outside with interests in mining. An example is Nanak Chande, one of the wealthiest Indians in the Lake Victoria area who owned two mines managed by a South African Boer. The Soriano group from Asia, with interests in Philippines took over a major mine reef which had been previously developed by East African Goldfields in Lupa.[39] Asians moreover comprised most of the skilled employees found in the industry,

It is estimated that gold mining companies employed about 11 000 Africans. Alluvial gold mining which was more labour intensive and dominant in Lupa employed approximately a further 12 000 Africans by 1938. Many of the labourers who were employed in Lupa mainly came from Zambia and Malawi. Around Lake Victoria labour was mostly local. These immigrants were young people, very often unpaid or paid very little and living under very poor and unhealthy conditions.[40] The same working conditions existed in the mines around Lake Victoria. The only difference was that the presence here of cotton growing as an alternative source of income, constantly threatened labour supply to the mines and resulted in high turn-over and frequent desertions.

Artisan mining

At the same time, a group of African skilled small-scale miners (referred to as 'artisans' in current studies) had also emerged by 1935. Many of these were Malawians who had been previously working with the European small miners who were by now moving out of the sector to other more stable forms of incomes. In some mines they came to constitute a permanent labour force, as a result of which "two years later, several Asian artisans had been displaced by Africans".[41] Others operated independently in groups, relying on the local merchant class as an outlet.

Besides probably interacting with the cotton economy, the impact of this industry on areas surrounding the gold mines was increased dem

nd for foodstuffs. There were farmers who migrated to take new lands near the goldfields in Mbeya. Some of these farmers extended their operations by adopting the plough or in some circumstances irrigation. As a result hybrid maize seeds were already being distributed in the Southern Highlands by 1937. Fifteen years later mor than 700 ploughs were in use in the rice fie

Miner holding a bag made out of hide. This type of bag is used by most miners to carry sand to the top of the pit. Photo by the author.

ds around the goldfields in the southern highlands. Such transformations also took place in the in Lake Victoria mining areas in the late 1930's under the stimulus of rising food demands and the arrival of Luo entrepreneurs from Kenya in the gold fields. These transformations resulted in differentiation among the rural producers, whereby some rural producers were increasingly being employed seasonally in the farms of those who had extended their operations.[42]

By the early 1940's. gold had become the most important economic mineral and its production had peaked at an average of four t a year. By this time the output value of gold was only exceeded by sisal which was by then the major export commodity. The government gained very little revenue from gold mining in the form of royalties, rents and fees despite its importance as an export commodity in these years. Out of the rising revenues from the industry, the government was only able to compensate "for earlier deficits incurred by the offices of mines and geological survey." The price of gold had throughout the period remained low. As a result, the government gave no support for the industry, either in the form of labour recruitment, provision of infrastructure or in protection. In the case of the Lake Victoria area, for example, the government's attitude towards the industry was determined by the importance it attached to cotton production.

With the advent of World War II gold production began to decline, because of 'war economy supply' priorities. From 1941 "mining companies were denied priority for supplies of machinery, gold prospecting was banned until the end of the war, and labour became genuinely scarce".[43] The fortunes of gold declined further with the discovery of diamonds at Mwadui in Shinyanga in 1939 by Dr Williamson. By 1945 diamond exports accounted for the single largest component of exports value and gold production had declined to an average of two t a year. Production of diamonds was able to rise steadily as it was backed by a "number of Indian merchants in Tanganyika and a task force of Italian prisoners of war... By 1946 [there were] 6 000 workers... with their families..., and over 200 armed guards" in Mwadui.[44] Government active support for diamond mining (including taking up equity in the private companies and even proposing its nationalization in 1946) was due to the fact that diamonds "earned at that time more foreign exchange for Great Britain than almost any other export, and the British government was understandably concerned with preserving its value".[45]

Minerals' contribution to the recorded GDP by 1950's. was three per cent. At around 15 per cent of total exports by value their export earnings were nearly as much as those of coffee or cotton. Diamonds accounted for roughly two-thirds of mineral production by 1960, although by this time gold production had risen to 3.5 t from its previous low levels, and accounted roughly for a further one-sixth of total value of mineral production.[46] With the government's actions in the 1940's. coupled with the relative unimportance of gold in the international monetary system which was to last until 1970, it had become unprofitable for large companies to develop gold mining. Throughout the period prior to 1970, the gold price remained at only 35 USD per ounce.

The most important inter-war period gold mine in Sekenke (lake Victoria area) which was operated by Tanganyika Central Gold Mines and other lesser large mines were closed by late 1940's. The only big mine which continued to operate up to early 1960's and produced well over half of total gold production was owned by Tanganyika Concessions in Geita, which remained the largest gold mine in East Africa (employing around 2 200) until it was closed in 1966. Although greatly improved in terms of efficiency by the 1950's it constantly faced financial problems. The only other remaining mining activities by 1950's were those of the medium scale companies which operated in Lupa (Saza and Ntumbi), Mpanda (Mukwamba) Mwanza (Geita and Mawe Meru), Musoma (Buhemba and Kiabakari), Singida (Sekenke-Iramba), Shinyanga (Nzega) and Ruvu River. The small scale producers who had emerged in the 1930's who used labour intensive methods and articulated with merchant class were also still in operation. Some of those who had been previously employed by the mining companies which were closing down joined the camp of 'artisal' miners barely surviving on the activity.

Declining production

While diamond production continued to expand after independence up to mid 1970's, commercial gold mining declined rapidly before and soon after independence from three t per annum in the early 1960's to 10 kg in 1970's It officially ceased entirely in 1972. The Three Year Development Plan for Tanganyika (1961–1964) which had been prepared by the World Bank considered that the development of the country depended fundamentally on the transformation of agriculture and animal husbandry. A contribution of mining to development was merely something to be hoped for – probably in the future. On the other hand it advised the government to modify its mining policies "as necessary to increase the attraction and encouragement to further prospecting by private interests", chiefly by providing favourable tax incentives in the early stages of mine development.[47] In any case, since many of the companies which had been previously interested in gold prospecting were South African based, trade sanctions on South Africa from 1961 made it impossible for them to operate whatever the tax incentives. Those which were not South African could not import cheap mining inputs from South Africa.

However, the disappearance of large scale operations and officially recorded production did not eliminate gold mining activities. The large number of skilled people experienced in loaming, gold prospecting and underground mining methods, who were laid off by the companies which closed down, increasingly moved into 'self-employed' mining.

'Artisanal' mining, continuing to rely on the market provided by Asian, Arab and Greek merchants continued to exist in the period when all large scale mining companies had ceased to operate. Most of this gold was smuggled into Kenya[48] before being shipped elsewhere. Intensification of this process increased further with the laying off of workers in diamond mining in 1976 as a result of decline in diamonds production.

These small scale mining activities were illegal from the state's point of view. The law of 1929 was still in operation. Under this law, prospecting by private firms should be in association with the government, which in turn granted licenses to qualified adults at its own discretion for a nominal fee. The government could issue an exclusive prospecting licence for an area of eight square miles or a negotiated special exclusive prospecting license over a large area. It could also control prospecting activities by formally closing any district or a whole territory for any specified minerals or simply by withholding prospecting licenses. During the colonial period, government had prohibited prospecting throughout the country for diamonds (except for Williamson Diamonds Co in the 1940's, coal, helium and salt. In certain specified areas it had also prohibited prospecting for gold, gypsum, meershaum, kaolin, radioactive minerals and materials for cement production.

Rising prices

The international scene in regard to gold demand began to change from 1969. From this year, the demand for industrial gold began to rise by 12 per cent per annum. As a result, estimated hoardings by 1971 were already above the value of production. Simultaneously, there was a huge increase in the US deficit and a corresponding decline in US gold stocks which created a crisis in confidence in the dollar as a universal currency. Consequently, the price of gold began to rise from 1971. Further price increases were to be fuelled by a surge of speculation in the free gold market, the result of which the price rose to USD 49.25 per ounce by 1972.[49]

The international financial chaos of 1973 together with the inflationary fears accompanying the threatened devaluation of the dollar sent the price of gold to USD 132 an ounce in July. By 1975, it had reached USD 197.50 an ounce,[50] whereafter it fluctuated inversely with movements in the US dollar value. The price of gold shot from USD 330 to USD 507 an ounce in 1982, only to collapse in early 1985 to USD 300 and ease back to USD 400 after 1986.[51]

With the opening of a free market in gold from 1971, the nature of the gold market was also substantially altered. While two thirds of gold had been bought by the monetary authorities between 1948 and 1965, which in turn had kept the price of gold and its supply constant or below its value, 60 per cent of gold coming into the market by 1986 went into jewellery, 14 per cent to industry, 14 per cent to private bar hoarding, while bullion coins took up the balance.[52] Switzerland emerged as the fulcrum of the industry, with a concentration of private bank-owned small refineries. Therefore, there was a renaissance in gold mining internationally from early 1970's reminiscent of the 19th century boom which resulted in an explosion of gold mining activities the world all over.

Officially, gold production in Tanzania failed to respond to this rapid increase in world prices to the extent that by 1989, registered gold production was still only 116 kg. Studies examining this sector in Tanzania,[53] place responsibility for this on Tanzania's 'socialist' policies and the nationalization moves in other sectors. According to Parker and Jourdan,[54] outside investors became interested in investing in minerals in Tanzania only in the 1980's because the government had by then abandoned its failed policies and changed tax, employment and exchange control regulations.

By 1992, there were 67 companies licensed in mineral drilling, although all of them were merely represented by agents.[55] Actually however, Tanzania's mining law was changed in 1979 in Tanzania and did not discourage large scale or foreign companies. Instead, the big mining houses in South Africa, which had been profitable even when gold earned only 35 USD an ounce, were reaping sufficiently huge profits at home to not risk moving into unchartered territory.

Stamico

The Tanzanian government's own attempts to take advantage of the new profitability of gold through the establishment of the State Mining Corporation (STAMICO) also proved to be doomed.

Stamico was aiming at reactivating production of gold from the alluvial sources by using large scale techniques.[56] This was despite the fact that it could not run the buck reef mines which it had taken over in 1971. Such large scale operations required a massive injection of capital from the government if they were to bear fruits. This was not possible at a time when the state had already began to face a fiscal crisis.

The attempts by STAMICO to attract large capital in the 1970's in the form of aid or otherwise failed, even with the new government mining law which came in operation in 1979 which was geared at encouraging foreign private investors to take prospecting and mining rights. Under this law, government participation in such ventures was no longer mandatory and local small-scale miners could peg claims and legally work on them. Despite these encouragements, there was no foreign capital forthcoming. Foreign companies in gold mining only began to appear in 1984 although then indeed it was under the same 1979 Mining Act which provided the legal and political framework and incentives for large scale mining.

Further reforms of the mining law were passed by the government in 1982/83. In 1987 it also approved a gold and gemstones trade rationalization policy which established a framework for privatization of minerals trading activities (liberalized in 1989). To provide accelerated clearance for investments in a number of sectors, including mining current investment incentive packages in the country include: low corporate taxes, exemptions in customs and sales duties, reduced royalty payments, increased foreign exchange benefits by allowing retention up to 70 per cent, and the creation of Investment Promotion Centre (IPC). By 1992, agreements reached with foreign private investors for prospecting and mining rights took the forms of royalties levied at 3 per cent of income, a 10 per cent government stake in the company and normal income tax levels.[57]

Few new company mines

Of the 67 licensed companies currently in the mining sector, about 20 had applied for prospecting licences in gold by 1992. Interestingly almost none of the foreign companies which were given exclusive rights in gold mine development already in the mid-1980's have opened any new mines. For example, Dar Tardine Tanzania (a representative of a Swiss company) was given exclusive rights in 1984 on an area which covered 80 per cent of the most attractive gold prospects in the northern part of the country (Mara, Mwanza and Singida). By 1988, the company had managed to shut out other investors in the area but had not explored or developed new prospects. Instead, it was involved in an experiment of retreatement of the Buhemba (Musoma) dump by cyanide leaching, producing 40 kg per annum. It was also involved in a project with STAMICO of sending teams of purchasers into 'illegal' gold mining areas to buy gold at open market prices.[58] This company fell under parliamentary investigation in the same year for gold smuggling. By 1991, this company had lost all its prospecting licences in 1991, and it is currently involved in a legal wrangle to get them back.[59] Likewise, Placer Dome, a Canadian company had been granted an exclusive licence to work on the important Bulyanhulu deposit. However, it relinquished the prospect "apparently for internal reasons".[60] In fact the only mechanized gold production operations in Tanzania so far are TanCan Gold Ltd in Nzega and Mans Mining in Lupa. The rest of the companies are more interested in centres of deposits discovered by 'artisanal' miners or in the old mines.

This reflects changes in the economics and technology of gold production. At current price levels (USD 330–360 per ounce), deep mines are hardly economic anywhere in the world, and few new ones are likely to open. On the other hand, new low-cost organic chemical technologies have been developed in recent years which allow the recovery of gold from easily accessible sites and materials which were previously considered too low grade to merit corporate investment. Some of these technologies which are even portable, are particularly suited to 'mopping up' gold from old workings of various descriptions. The 1980's has seen an expansion of so-called 'junior' small mining houses based in Australia, Canada, and parts of Europe (eg Ireland) which specialize in precisely these operations, and which can profitably combine with buying gold from small miners.

Alongside the foreign mining companies there are several Tanzanian players. These include the Bank of Tanzania, which since 1989 has itself been buying from small miners at parallel market prices and three types of company, described as follows by Parker:

"Local Tanzanian companies are of three main types. Several artisan miners often, with assistance from foreign companies, are trying to develop their claims into mechanized mines (Chipaka, Kiganga, Four Gold Miners). Local businessmen, often Asians or Greeks, establish companies to formalize the gold dealing which they have probably been doing illegally for years. The most interesting are those set up by Tanzanian geologists or mining administrators (Bungu, Engineering Associates)."[61]

Tanzanian small mines

The activities of the small miners (so called artisans, galampsey or pailleurs) has in recent years mainly been undertaken in old mines and other areas where known alluvial deposits existed up to early 1970's Their activities experienced a spectacular boom in 1976 with the discovery of a hitherto unknown large gold deposit at Bulyanhulu (now recognized as a world class deposit) in the southern part of Lake Victoria and the influx in to it of workers who had been laid off in diamond mining.[62] Since then the small miners have continued making totally new discoveries in many parts of the country every year, to the extent that by 1990 it was estimated that there were about 300 gold mining sites and an unknown number of gem-sites operated by the 'artisanal' miners.[63]

Despite the activity being illegal from the government's point of view, mining communities of 10 000 up to 25 000 people were being 'unofficially' established within a space of a few weeks in these years, with a "high degree of internal organization". Since the Village Act, which passed land ownership to village governments as corporate bodies had already been introduced by this time, these activities must have been undertaken with the knowledge or participation (directly or indirectly) of party and government officials at some levels. The same is indicated by the complete lack of enforcement of the mining law. Within a year of the discovery of Bulyanhulu, for example, "50 000 people were reported to be working the reef or providing support services to miners". Recent estimates are there are 300 000 people[64] operating in these sites.[65]

Bulyanhulu miners were cleared from the site by the state in favour of STAMICO and international mining interests in 1978. Despite this, illegal mining on an unquantifiable scale continued at this site and others throughout the country. It is estimated that in the past 15 years or so, between 8 to 15 t of gold have been produced by these small scale miners annually. According to the Business Times[66] about half of the foreign exchange earnings (about 172 MUSD) or almost three times the value of coffee exports were lost annually through the unofficial gold trading channels in the 1980's.

Official claimants

The 1989 liberalization in mineral trading also resulted in the officialisation of many small miners' operations. Since then, previously unofficial claimants began pegging their claims in the name of a single owner or partnership (a syndicate of miners). Village governments have also pegged claims on behalf of the village.[67] The claims have been administered by the village leadership which have also kept the "records of visitors, people living and mining on the claim and gold production (official or unofficial)".[68] The claim holders do not work on the pits; instead, they lease the claims to a series of 'pit owners' who are given control of a few meters of strike length. The pit owners in turn employ four to six miners who do the actual work.

In other words, the claim holder becomes the capitalist landowner (merely receiving a share of the mined ore or in the form of a few shifts labour), while the pit owner is a small capitalist or mere manager indirectly who in turn employs workers. Under such arrangements, the pit owner either works at the claim-holders expense or at his own expense. In the former case the pit-owner and the workers are paid in the form of working a 'shift' of their own for one to three days; and in the latter case the claim-holder receives a one to two days shift of working. The miners themselves receive a share of the mined ore. While the rates of the share of the mined ore between the claim-holder and the pit owner may vary, on average the former gets about 30 per cent and the latter takes the rest. At this point, either the bagged crude ore is auctioned to those who buy it and treat it or it is treated individually by the claim-holder and the pit owner.

Production methods

Production methods are simple and labour intensive in these gold fields. Mechanized equipment (such as compressors, jackhammers, water pumps or even explosives) are a rare phenomenon in the sites. Even those which are available are in an extremely bad shape. Mining is done by hand using "outworn pickaxes, sledge hammers, chisels and shovels". The team of miners which is organized by the pit owner carries out shaft sinking and extraction of gold ore. Shafts are sunk at a rate of up to three meters a day, and waste rock and ore is hoisted to the pit surface by baskets or sacks. The broken quartz reef is sorted by hand.

Grinding, crushing and recovery of gold is done with rented equipment and hired labour of mostly old men. Then more people are hired to pound. This is the most highly paid labour, and within a gold field there may be up to 20 groups of four to 15 workers who do this job. The pounded product is sieved so as to remove the oversized product and repound it. This work is done by children who are a source of cheap labour. Gold recovery from sand is done by sluicing and finally amalgamating with mercury. Finally tailings are sold for regrinding and rewashing, a job which is undertaken indoors by women in the mining and surrounding villages.

Winners and losers

The fortune makers in this process, as in most historic gold rushes, are mainly the claim-holders (basically the rural bourgeoisie and village leaders who are in a position to register at local offices and in the Ministry of Water, energy and minerals, some syndicates of small scale miners, some Asians and Greek businessmen, employees of the official mining sector and urban party and public bureaucrats) and the merchants – those dealers who are "notoriously shy over the observance of their activities [who] congregate around margins of the workings with scales and a practised eye f r fraud, and the true density of gold a d the typical fineness of each field".[69] These are the ones who smuggle out gold and recycle the foreign exchange through importation of consumer goods. These groups are the main beneficiaries of the liberalization measures which have formalized these activities.

The pit owners' fortunes are mixed. There are a few who make it, depending on the richness of the deposit but most do not. Most pit owners are mere workers, the difference being they are not permanently controlled by the claim holder. Therefore, their tendency is to drift to wherever there are better prospects. The majority of the workers are losers in these operations. Other losers are the poor rural dwellers who lose their lands after the claims have been pegged while the rich farmers and the village leaders gain as it was revealed in 1990, when gemstone dealers pointed out that "party and government officials in the areas concerned were among those to have gained most from the uncontrolled trade" – i.e. illegal mining.[70]

Organization within the mining camps is in such a way that some claim holders erect quarters so as to attract a permanent labour force in the camps. Once a camp starts to show up, within weeks there follows a chain of entrepreneurs – second hand

Monthly mineral auction. Official dealers purchase minerals from the small miners. Photo by the author.

clothes dealers, tailors, beer sellers, prostitutes and those who establish food stalls, kiosks and 'hotels'. The camp also starts being serviced by bicycle taxis or four wheel drive vehicles or buses, and also those who sell water. The organization of the camps display the social difference "ranging from 'high street'" to 'low ones'. Even the nature of means of transport reflect the same segmentation. The Party (CCM) officials and the traditional defence groups (Sungu Sungu) are also present in these camps.[71]

The way the current operations are carried out and the manner in which camps are organized has immense effects on the people and the surroundings. There are the environmental ones which result from massive deforestation as a result of continuous invasion of new area given that most mining is done in shallow, soft ore areas which are abandoned immediately the moment there are water or air problems. The use of mercury – at least one tonne was imported for mining use in 1991[72] to capture gold from sediments has both environmental and health impact in terms of pollution, neurological problems and birth defects. Other health problems are related to the spread of AIDS, unhealthy sanitary conditions and unavailability of water, pulminory problems and deaths from major collapses.

Concluding remarks

As it has been shown above, the legal framework and attitude towards private investments in Tanzania has over the years been favourable, but it has so far been unable to attract large scale mining acti ities. Even in the case of other developing countries it has been observed that "newly liberalized investment codes have not precipitated a rush by private companies and the investments that have been made have tended to be cautiously selective both in terms of countries and commodities".[73] Therefore, Ghana's meteoric gold boom, supposedly as a result of the 'enabling environment' cannot be generalized to all countries in Africa given the specificity of Ghana's history of mining investments. What is clear at a general level, is the fact that while there were windfall profits in the production of non-ferrous metals up to 1988/89. Subsequently the balance sheets of the producers have increasingly been damaged.[74] As indicated, most of the new foreign direct investments in Tanzania are small-scale and in recovery processes.

It is obvious that the World Bank's thesis that mining in Africa was hampered by controls and inappropriate policies, and that what is required is an 'enabling environment' is based on false premises. It rests at the very least on confusion between mining in general and mining by very large scale foreign private companies. Controls and 'inappropriate policies' were never relevant for the so-called artisanal sector, which fell and rose with fluctuations in gold price. Nor have Tanzania's laws ever been hostile to foreign private companies, even before the legal changes of 1979.

These laws supported the same interests which the World Bank has been advocating and yet they have failed to attract investments until changes occurred in gold market and technology. The World Bank's argument is based on a false assumption that there was an actual fall of production of minerals in Africa when huge quantities of artisanal production was going unrecorded (over 40 per cent of gold in Sub-Saharan Africa is still produced by 'artisanal' miners). The fact is, while it may have been the case for bulk minerals which require heavy investments (e.g. copper, iron ore, phosphates, etc), as the above facts on Tanzania show, it was not necessarily the case with the high-value minerals – gold, diamonds, and other gemstones.

Given the changing nature of production processes and relations in the industry and coupled with the price and demand situation in the world market, most commercial mining companies in the case of Tanzania are likely to take licences for mercantile, or at best, recovery purposes as DTT did in the 1980's. Actual mining is likely to remain in the hands of the so-called artisans, because of the latters' extreme cost advantage. These allow a high level of 'uneconomic' production. As Bills et al state "In consequence it is on occasion possible for the artisanal miners to high grade deposits that would be too low in overall grade for commercial companies to consider".[75]

The new technologies which emerged in gold mining from the 1970's interlocked with and helped reproduce existing relationships in production which as they remain even now are quasi feudal with merchant capital dominating. Big capital – foreign or local/commercial, state or industrial – has been operating in a mercantilist form, hence, fettering technical transformations. The World Bank and the advocates of the 'second economy' dualism are in essence championing this dominance of merchant capital in production. They are defending forms of accumulation which tally well with the expansion of the world market interests with the tendency to undermine productive accumulation and encourage the 'economy of plunder'. The advocates of 'second economy' arrived at this position because of failure to grasp the fact that petty commodity production and small scale enterprises are an expression of fragmentation within capital which forms the very logic of existence of capital and its reproduction (competition–monopoly–competition). Even accumulation is also based on competition (from below) and monopoly (from above).

These forms of accumulation have definite implications in the process of class formations in Tanzania. As the exposition above shows, within the mining villages the producers are differentiated and this dif ferentiation forms part and parcel - of differentiation in the surrounding reas and class differentiations in society at la ge, under forms of accumulation which combine competitive market relations (accumulation from below) and state and international connections (accumulation from above). The unity and contradictions of these two forms of accumulation and their political implications locally and at the country level have not been studied in Tanzania.

What is currently witnessed in the country is the fact that even those who criticized the World Bank and IMF from a radical position, stood for the autonomous organizations of the 'civil society' from the state and transformations from below have ended up in espousing all sorts of social organizations as against multi-party democracy proposed from above. This has been done without an examination of the specific modes of politics being generated in the political sites – the factory, the farm, the mine, the plantation and home. It is difficult, if not impossible to grasp the implications of the current multi-party democratic changes in Tanzania without explaining the changes that are taking place in the accumulation process and struggles around it.

For example, currently, small scale mining, despite its crude methods of production, its oppressive social relations and its overall congruity with and stimulation of compradoriolism in the national economy is providing a means of livelihood to many people, in the form of profits or wages besides stimulating other forms of local level capitalist growth. The granting of prospecting licenses to large mining is bound to generate definite conflicts between this activity, which concentrates on shallow deposits usually situated in the bulk mines and that of the large companies, which are likely to claim these same sites (and enjoy legal priority to them). Commercial mining, as Bills et al[76] have observed, therefore tends to sterilize a working area for several years during exploration and feasibility studies. This clashes with interests of local operatives and claimants. Already, with the granting of licences by IPC to large capital is increasingly resulting in conflicts. This for example, has been the case in Dodoma where a Korean company was given land belonging to several villages for mineral prospecting, and also in Arusha where a foreign company was given land belonging to 25 villages in Kiteto district to establish a game farm.[77] Besides this, the foreign companies will without question employ only a fraction of the current labour force with severe implications for the basically healthy capitalist development of agriculture and services in mining areas.

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