

INFORMATION ON THE MINERALS AND MINING SECTOR

1. The procedure for obtaining mineral rights

The licensing system distinguishes between the scale of mining, mining type and the stage of mineral development. Applications for mineral rights are made to the Minister responsible for mineral affairs for the large scale mineral rights and to the Commissioner for Minerals for small-scale mineral rights. Processing of applications is centralized and based on the first-come-first-served principle stipulated in the Mining Act, 1998. Applications are made by filling forms and attaching the necessary documents. Applicable fees and annual rents are variable depending on the mineral right responsible.

2. The procedure for obtaining licenses for the production, processing, import, export, purchase and sale of minerals

The Mining Regulations, 1999 stresses that no export without permit. No authorised miner and no licensed dealer shall export any mineral which, in the case of an authorised miner, has been produced by him from the mining area, or in the case of a licensed dealer has been purchased by him from an authorised miner or a licensed broker unless he has obtained from the Commissioner a permit to export the mineral which evidences the payment by the authorised miner of royalty or provisional royalty, or in the case of a licensed dealer, the making of a payment or a provisional payment in lieu of royalty, in accordance with the provisions of Part VI of the Act. Applications are made by filling forms.

The Mining Regulations, 1999 stresses that no import without permit. No authorised miner and no licensed dealer, licensed broker or authorised lapidary may import any precious minerals unless he has obtained from the Commissioner a permit to import those minerals. Applications are made by filling forms.

3. Government's policy for promoting mineral development

The Mineral Policy of Tanzania, 1997 stresses on private sector led mineral development. The policy aims at attracting and enabling the private sector to take the lead in exploration, mining, beneficiation and marketing of minerals. Government equity participation in mining ventures is not mandatory.

The main policy objectives are the following:- to stimulate exploration and mining development; to regularize and improve artisanal mining; to ensure that mining wealth supports sustainable economic and social development; to promote and facilitate mineral and mineral-based products

marketing arrangements; to promote and develop Tanzania as the gemstone centre of Africa; to alleviate poverty especially for artisanal and small-scale miners and to minimize or eliminate the adverse social and environmental impacts of mining development.

The role of the Government is to provide clear policy guidelines, stimulate and promote the sector's various players and see the sectors developments. It will guide private mining investment by administering, regulating, promoting and facilitating the growth of the sector. The government has to act as a service provider.

4. An overview of the mineral activities in Tanzania and areas required to be promoted

Tanzania has a great potential of minerals particularly gold, tin, nickel, iron, copper, zinc, lead, diamonds, uranium and a wide variety of gemstones, some of, which are unique such as tanzanites. Coal, and industrial minerals such as soda, kaolin, gypsum, phosphate and dimension stones are available at attractive economic rates.

The on going exploration works has resulted into discovery of resources in excess of 45 million ounces of gold between 1998 and 2006, with 1.5 million tones of nickel and 50 million carats of tanzanite.

Economic reforms introduced in the mid-1980s re-opened doors to private investment in the mineral sector. This led to revival of large-scale mineral exploration and mining in Tanzania. The country has six gold mines in which two of the gold mines are world-class deposits and two nickel projects which are underway. Annual gold production from the six gold mines is about 50 tonnes, putting Tanzania among the leading gold producing countries in Africa.

4.1. Contribution of Mineral Sector to National Economy

The mining industry of Tanzania has experienced a dramatic development during the last twelve years. It has attracted over USD 2.5 billion Foreign Direct Investment since 1998. Within a period of over ten years, Tanzania has risen from an insignificant gold producer to become Africa's third largest gold producing country. Gold production in 2003 was about 1.3 million ounces and resources of more than 45 million ounces; the values of the country's mineral exports rose from \$312 million in 2001 to \$ 1,032 million in 2007.

Tanzania has experienced a significant rise in the contribution of the mineral sector to the economy. Export values from minerals have increased from 0.07% in 1995 to 42.4% in 2005 and mining contribution to GDP has gone up from 1.4% in 1995 to 2.7 % in 2007.

4.2 Mineral Exploration and mining opportunities

Gold:

The Lake Victoria goldfields (greenstone belt) still stands for areas of investment in gold mining. There are prospects such as Kitongo, Nyakafuru, Miyari and Sekenke which are not yet developed. Many others do exist upon exploration in this belt. The Lupa goldfields in South west of Tanzania and Mpanda area are promising for gold mineralization in which other basemetals are associated.

Diamond:

Over 300 kimberlites are known in Tanzania of which, 20% are diamondiferous. Some 600 dipolar magnetic anomalies with similar geophysical characteristics are known kimberlite pipes which have been recorded during recent geophysical surveys. Also of relevance are the psuedo-kimberlites or para-kimberlites along the young craters where diamonds have been discovered.

Alluvial diamonds have been recorded but a large deposit of economic exploitation has not yet been found. Locating shallow buried superficial deposits using airborne infrared surveys may prove useful. Areas in Tabora and Singida regions are worthwhile for detail work.

Ferrous and non-ferrous metals

Ore bodies for iron, nickel, copper, cobalt, chromium, and Platinum Group Metals (PGM) are associated with ultramafic intrusions whilst tin and tungsten related to granitic intrusions. None of these metals has been mined in Tanzania although there are advanced projects such as Kabanga nickel.

Iron:

Numerous iron ore bodies have been identified in the Proterozoic rocks. Titaniferous magnetic bodies associated with anorthositic gabbro occur at Liganga SW Tanzania and is in close proximity (80 km) to the coal resources of Ketewaka-Mchuchuma. Shallow drilling established a resource of 45 million tonnes grading 52 percent Fe. The Titanium minerals are also known in beach sands along the coast.

Platinum Group Metals (PGMs – platinum, palladium, rhodium, rhenium, osmium and iridium).

Occurrence of these minerals are in layered mafic igneous intrusives such as gabbros and anorthosites; ultramafic rocks such as peridotite, dunite and serpentine. It involves concentration of molten sulfide droplets or oxide crystals in mafic or ultramafic magma.

Localities are Kabanga, Kapalagulu and Zanzui. Others are Kabulyanwele, Mwanhanza Hill, Garauja-Basuto, Twamba, Nkenza, Itiso, Haneti and Uluguru Mts.

Gemstones

Varieties of gemstones are found in the Proterozoic rock formations mainly east of the Archaean Craton. Scattered areas in which gemstones are known to occur west and south of the Craton. The gemstones include: ruby, tanzanite, garnets, tourmaline, sapphires, spinel, topaz, scapolite, emeralds, chrysoprase and alexandrite.

Carbonatites

The carbonatites are associated with the rift valley system and occur in northern, southern and central parts of the country. Alteration zones of up to 1.5 km width surround the carbonatites. Minerals hosted in carbonatites include Rare Earth Metals (thorium cerium, lanthanum, neodymium, lanthanum and praseodymium)

Coal:

The country possess a coal resource may be as higher as 1.5 billion tonnes and their ash content varies from 14.2% to 45%. Coal resources occur in Karoo rock formations in southwestern part of Tanzania. Reserves in the order of 1000 million tonnes of coal have been proved by drilling in all the coal fields and only 40% can be extracted by surface mining methods. Currently coal is being exploited on a small scale at Kiwira Coal Mine. Coalfields with highest potential are Katewaka–Mchuchuma in the Ruhuhu basin and Songwe–Kiwira. The coals vary in rank from sub-bituminous C to medium-volatile bituminous (mvb). The ash content between 15% and 20% and other seams as higher as 40% and generally low in sulphur (less than 2%). Songwe-Kiwira coalfield is the only coalfield producing coal using mechanized underground coal mine at Kiwira.

Evaporites

Evaporites such salt, gypsum and soda ash occur in the rift valley and younger rock formations along the coastal belt.

Industrial minerals:

A variety of industrial minerals and rocks include kaolin, diatomite, bentonite, clays, mica, magnesite, talc, vermiculite, phosphate, feldspar, fluorspar, graphite, limestones and marble stands to be priority areas for investment.

4.3 Mineral Value addition:

Minerals like gold and gemstones are exported as raw materials. There is a need to have jewellery and refineries in Tanzania. Cutting and polishing industries and refineries of gold can be constructed.

Also there is a good potential of gold from our neighbouring country Democratic Republic of Congo which can be mined in the near future and refined in Tanzania.

4.4 Laboratory Services (Environmental and mineral analysis)

Establishment of laboratories for mineral analysis and environmental are currently needed as there are many exploration and mining activities which are being carried out in the country.

5. Public, private partnership ideas if any

6. Regulation on mines i.e. ventilation, sanitation, drainage, health & safety and environmental compliance

Limitation of discharge of pollutants

No Licensee, or Manager or agent of the licensee, shall cause or knowingly permit any discharge, deposit or emission of liquid, solid, gaseous or particulate material, or noise or vibration, from a mine, as defined in the Act, into the environment which will cause pollution, except-

(a) in the case of all holders of special mining licences and holders of mining licences and gemstone mining licences issued pursuant to applications made in accordance with the provisions of regulation 4 and the First;

Schedule to these Regulations, in accordance with an authorisation issued by the licensing authority; Act No. 42 of 1974;

(b) in the case of a liquid effluent, in accordance with an authorisation issued by the Water Officer under the Section 15A of the Water Utilisation (Control and Regulation) Act, 1974; and

(c) In accordance with any relevant standard published by the Tanzanian Bureau of Standards, or where such standards do not exist;

Action on the unauthorized

In the event of any unauthorized discharge, deposit, or emission the licensing authority may direct the mine to implement a programme of action within a specified period, and to observe certain conditions during such period, in order to prevent any further occurrence of unauthorized pollution.

Breach of regulations and penalties

Any person who commits a breach of any regulations under this part or fails to implement a direction under regulation 12 or fails to take measures or adopt procedures agreed with the licensing authority under sub-regulation (2) of regulation 19 shall-

(a) be guilty of an offence and be liable on conviction to a fine not exceeding one million shillings (1,000,000) or imprisonment for a period not exceeding six months or to both.

(b) In the case of a holder of a mineral right be deemed for the purpose of sub-section (1) of section 57 of the Act to be in material breach of regulations binding on him.

General safety procedures

Every person in or about a mine shall, before commencing and while at work, use ordinary and reasonable care to satisfy himself that all appliances and equipment in use or about to be used by him are in a safe condition and that places in which he works are safe.

No person in or about a mine shall cause or permit any other person to use anything or work in a place which is unsafe.

Where mining operations have caused subsidence or cavities on the surface, or where such are likely to occur, such places shall be securely fenced in and conspicuous notice boards put to warn person off.

No person shall light or build a fire in an underground mine or weld, cut by the use of heat or flame, or use a blowtorch in an underground coal mine without the written permission of the Inspector.

Fire hazard areas shall be identified by warning signs, and persons shall not smoke, use open flame lamps, matches, or other means of producing heat or fire in designated fire hazard areas.

The Manager shall take reasonable and practicable measures to ensure that the workplace is free of potentially hazardous agents and conditions which could adversely affect the safety, health or well-being of the workers.

7. Government's support to artisanal and small-scale mine

The Government of Tanzania recognizes the positive contribution of the artisanal and small scale mining sub-sector to the economy which include the discovery of mineral occurrences, mineral production and the creation of employment and incomes in the rural communities. In view of this, the Government is committed to supporting the small-scale mining sub-sector by facilitating transformation of the present artisanal mining activities into more organized and modernized small-scale mining units, and by promoting modalities of mineral marketing which encourage transparent business transactions and discourage smuggling.

Strategies for rationalizing artisanal and small-scale mining

- (i) Transforming and upgrading artisanal mining into organized and modernized mining;
- (ii) Facilitating the availability of appropriate and affordable mining tools, equipment and consumables and encouraging the manufacture and supply of the same;
- (iii) Promoting partnership between local small-scale miners and large-scale investors to facilitate technology transfer and optimize mineral resources exploitation;
- (iv) Providing supportive extension services in mining, mineral processing and marketing;
- (v) Streamlining and simplifying the licensing of artisanal miners and mineral dealers;
- (vi) Preparing, disseminating and enforcing a code of conduct in mining and mineral processing; and
- (vii) Promoting marketing arrangements which are responsive to the requirements of the artisanal and small-scale mining sub-sector.