

NATIONAL REPORT ON MINING

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Content

1. Introduction

1.1 Background of the Mining sector of Ethiopia

1.2 The vision of the Ethiopian mining sector

1.3 Executive institution of the mineral sector of Ethiopia

2. Legal regime

3. Status of the mineral sector investment

4. Strategic plan of the Mineral sector Development

5. The importance of Mining sector in Ethiopia

5.1 Economic benefits

5.2 Social Benefits

5.3 Environmental management

6. The issues related to Mining

6.1 Environmental issues

6.2 Capacity building and awareness of the sustainability issues

7. Conclusion

1. Introduction

Ethiopia located in the Horn of Africa between latitudes of 3° N - 15°N and longitudes of 33°E - 48°E covers a land area of about 1.14 million km² with a population of over 73 million. Kenya, Djibouti, Somalia, Sudan and Eritrea are the neighbouring countries. Ethiopia has adopted federal administrative system comprising of 9 regional states and two City Administrative Councils.

1.1 Background of the Mining sector of Ethiopia

The geology of Ethiopia ranges from oldest (Precambrian) to recent volcanic and sedimentary formation.

The oldest (Precambrian) rocks host most of the economic metallic mineral deposits that include primary and secondary enriched (placer) gold, platinum, platinum group elements (PGE), nickel, tantalum, base metals (like copper, lead and Zinc), industrial minerals (like phosphate, iron ore), gemstones (like ruby, emerald, sapphire, garnet, etc) and also decorative and dimension stones such as marble, granite and other coloured stones.

The sedimentary (Mesozoic) rocks also host, other than the natural fuel minerals (oil, gas, oil shale, coal, etc.), some other metallic ores like malachite, manganese, gypsiferous minerals as well as enormous construction and cement raw materials resources. The volcanics and sedimentary rocks of the recent age (Cenozoic) host most world class industrial minerals such as potash, rock salt, bentonite, soda ash, diatomite, opalized stones and numerous types of construction and cement raw materials.

So far developed large scale gold mine in the country is the Lege-dembi gold mine, located in the southern greenstone belt region, being operated by private company with estimated reserve of 82 tons and an average annual production of 3.6 tons of gold.

There is also small scale open pit mine of columbo-tantalite at Kenticha in the Adola belt. The deposit is both a weathered crust ore (the top 60 meters) with proven reserve of 2400 tons of tantalum pentaoxide and 2300 tons of niobium pentaoxide, and primary ore with proved reserve of 2393 ton Ta₂O₅ and 2362.5 ton Nb₂O₅. The Mine has been operating since 1990 with a pilot plant

producing about 20 tons per year. At present it is producing over 190 tons of tantalite concentrate of tantalite colombite ore per annum.

Secondary enriched (placer) gold has been mined traditionally (artisanally) for years back to biblical times. Formalization of the artisanal miners has been strengthened since the early 2000's that about 1000 Kg of gold is purchased from the local miners and dealers by the National bank of Ethiopia that in turn increases in generation of foreign currency.

Soda ash is being mined at Lake Abiyata in the rift valley about 200 kilometres south of the capital. The reserve at Lake Abiyata and the surrounding lakes exceeds 460 million tons of sodium carbonate at salt concentration ranging from 1.1 to 1.9%. The plant is producing about 5,000 tons soda ash per year at semi industrial scale. The consumers of the soda ash are local caustic soda factory, soap and detergent manufacturers.

Kaolin, quartz and feldspar are also being mined from the Adola belt in southern Ethiopia by government enterprise. The consumers of the products are the Awash-Melkasa Aluminium Sulphate and Sulfuric Acid Factory and the Tabor Ceramics Factory.

Silica sand is also being mined and utilized by local industries. The cement factories of the country are using high quality limestone, clay, gypsum and pumice as a raw material for cement production.

There is also large input of construction minerals such as sand, gravel, scoria, crushed stones, aggregates, pumice, scoria, etc to the construction industry (including buildings, roads, dams, bridges etc.)

Other mineral products including platinum from laterite, industrial minerals, gemstones (opal, peridot and other precious stones) and decorative and construction materials are also produced by licensed foreign and local mining companies in the southern, western, central and northern regions of the country. There are also some other advanced stage primary gold exploration and development activities in different parts of the country which so far has identified close to 100 tons of indicated reserve of gold and other precious metals.

1.2 The vision of the Ethiopian mining sector

The vision for the coming 15 to 20 years for the Mineral Sector is to establish a diverse, world-class, competitive and environmentally sound private sector led mining industry, based on transparent free market principles, contributing not less than 10% of the GDP thereby enhancing the socioeconomic development and eradication of poverty in Ethiopia.

1.3 Executive institution of the mineral sector of Ethiopia

Ministry of Mines and Energy of the Federal Democratic Republic of Ethiopia is representing the mining sector development of the country. While Ministry of Mines and Energy has duties and responsibilities in issuing licenses and regulating mineral and petroleum operations, the Ethiopian Geological Survey, an autonomous institution under the Ministry, is responsible to undertake basic geological mapping, mineral exploration and other related geological activities, and generate basic geosciences data. The Regional States Mines Bureaus/Agencies have also the mandate to issue and administer prospecting, exploration and, artisanal and small scale mining for national investors.

2. Legal regime

Between 1974 and 1991 private investment was not allowed in the mineral sector rather government institutions were given the right to explore and develop the mineral wealth of the country. As a result of the political change that took place in 1991, a new market oriented economic policy was introduced in the country. In the mining sector, the government promulgated a new mining proclamation and mining income tax proclamations to encourage the participation of private capital in mineral prospecting, exploration and development activity.

The Mining Proclamation No. 52/1993, Mining Regulations No. 182/1994 and Income Tax proclamations No. 53/1993 were issued to attract private investment. The proclamations were consecutively amended so as to be competitive internationally and in favour of the investors.

The major issues addressed in the legislations are:- they invite private investment in all kinds of mineral operations, Provide exclusive license right (a one-year prospecting license, three years exploration licenses, with two renewals of one year each, and mining license for ten or twenty years with unlimited renewals of 10 years each), require adequate health and safety of employees and environmental protection and environmental impact study depending on type and nature of a

project, guarantee the licensee's right to sell the minerals locally or abroad, provide exemption from customs duties and taxes on equipment, machinery and vehicles necessary for any mineral operations, guarantees the opening and operation of a foreign currency account in Ethiopia and retention of portion of foreign currency earning and remittance of profits, dividends, principal and interest on a foreign loan etc. out of Ethiopia, require relatively low royalties of 2 % (Mineral water and construction materials) to 5% (for precious stones) ad valorem on production site, dispute settlement through negotiation and international arbitration, and provide loss carry forward for ten years.

The 2008 **new mining policy of Ethiopia** has also been prepared and the final draft is sent to the Council of Ministers for approval and following the approval of this policy it is intended to introduce some up to date concepts in the provisions mining legislations soon after.

3. Status of the mineral sector investment

The Mining laws of Ethiopia have been issued in 1993 and amended recently, in 1998 that they invite private sector investment and believed to be competitive and attractive as compared to other developing countries mining codes. Subsequent to the Mining code, the mining regulation was also issued in 1994 and makes all licensing and administration procedures as transparent as possible.

Encouraging foreign and local mineral development investments have been shown since late 1990's. The total investment amount registered by the private sector to date is about 1.1 Billion US Dollars where by 95 % percent of it is direct foreign investment for the development of precious and industrial minerals.

Presently a number of junior exploration and world class mining companies are operating in Ethiopia for different mineral commodities. Apart from these there are wide ranges of future investment opportunities found in Ethiopia that hope to be of mutual benefit to the investors and the speedy socioeconomic development of the country.

4. Strategic plan of the Mineral sector Development

Currently the Ministry of Mines and Energy is working in two major strategic plans in the mineral sector for the period 2005-2010. These are focused in: -

i) Geosciences data generation and distribution:

Assessing most of the country's landmass and acquiring/generating basic geo-science data (different scale geological, geochemical, hydro geological geo-technical etc maps, Minerals exploration data, etc), which is being carried out by the Geological survey, qualifies to the standard and enables to provide basic information to all users including potential investors.

ii) Strengthening competitive and enabling mineral sector investment environment so as to increase the benefit from the sector.

Identifying the various constraints that hinder mineral operations investment in the country and taking appropriate measures such as issuance of the mineral policy, implementation of mineral license cadastre, facilitating artisanal and small scale mineral development and marketing condition in order to create conducive investment environment by considering all aspects of capacity building implementations in to focus areas to the best of the institutions.

5. The importance of Mining sector in Ethiopia

5.1 Economic benefits

Generally the mining sector in Ethiopia generates revenue from sales, taxes, royalty as well as generates foreign currency earnings and also saving of hard currency in substituting the imported mineral related inputs of the country. The mining service sector activities are also contributing for employment opportunity.

In Ethiopia, over 80% of the population is engaged on Agriculture and related activities. The major export of the country also comes from the agricultural

sector. Even though the country is believed to have wide mineral potential, the contribution of the mining sector to the national economy has so far reached a maximum of 6%.

The federal government has been collecting royalty amount 48.5 Million Birr (4.4 Million USD) from the large scale production of gold every year for the last three years. The regional administration also collects royalty from the small scale and artisanal production of precious minerals, industrial and construction materials. The total amount of royalty collected by each region (nine regional states and two cities Administration) is in few tens of millions of Birr (up to three million US dollars).

The amount of foreign currency earning is About 135 Million dollars every year for the last recent years from the sales of export of minerals such as gold, tantalite concentrate platinum, decorative dimension stones and gemstones. This export earning contributes up to 7-10 % of the total export foreign currency earnings of the country.

According to information from the Ministry of finance and Economic development the contribution of the mining sector to the GDP before 1990's was less than one percent; however, there is statistical worked out data from this ministry that the mining sector contributed 5.8% and 5.5% during the fiscal year 2007/8 and 2008/2009, respectively.

The service sector of the country increases its benefits as a result of the activities of the mineral sector development.

5.2 Social Benefits

Mineral sector employment opportunity is becoming significant for the local communities where there are mineral development activities in their near by areas, as well as for skilled and semi skilled citizens. The total estimated direct employment of skilled and unskilled human resource in the mineral sector is in hundreds of thousands of people of the country. This employment record is revealed in construction and industrial minerals quarries, open pit and underground gold mine, production of salts from brines and rock salts and the gemstone mining that the distribution of such activities are found all over the country. The formal artisanal mining activity also reduces the poverty level of millions daily life including 30 to 40 percent of the women participation.

Roads, electric power from national grid and telecommunication infrastructures have been developed and/or upgraded due to the development of Gold, tantalum, salt and other major mining projects in different parts of the country.

Different level of health service centres, schools as well as airstrips were built by the developers of the mine that provides service to the local community as well as the employees of the mining community. To some extent there is start to train local communities to engage in other form of business such as plantation of coffee and other trees, introducing agricultural activities (irrigation) where there had no such type of lifestyle in the area, small entrepreneurs engagement mainly providing services such as hotel, mini- markets, stationeries, etc to the community, etc.

5.3 Environmental management

It is inevitable that extraction of minerals from the nature earth leads to disturb the environment. When disturbing the environment there must be careful and systemic protection of the whole system of environment that assures sustainable use of the current resource and or ecosystem and that bring about either less or almost none destruction or pollution of the environment. The mining legislation of Ethiopia, which came in to effect in 1993 has provision that requires as compulsory criteria to study, submit and get approval of Environmental Impact Assessment from the respective Authority in order to develop large scale mining project. The common environmental issues in Ethiopia to be considered in development of the medium to large scale mining projects are the surface and ground water system, the physical land management (soil, rock stability, deforestation grass land, farm land, etc), spillage of strange chemicals/metals, air, noise, dust, aesthetic values of the area, cultural and tourist heritages, the communities as well as all other lives surround the mine proximity.

In principle the licensees shall ensure the financial mobilization of the environmental management and mine closure plan. Therefore sinking fund is required to be pledged while the mining activity is going on and management plan shall be implemented through out the life of the mine.

6. The issues related to Mining

6.1 Environmental issues

In Ethiopia there is no abandoned or orphaned mine due to large scale operations that the rehabilitation cost be as such big. However, the history of gold mining in Ethiopia dates back to Biblical times. Substantial amount of placer gold deposits were discovered and mined by semi-mechanized and artisnal methods in the Adola belt, southern Ethiopia, western Ethiopia, south western Ethiopia as well as to some extent in northern region of the country. Also Artisanal miners

are exploiting a number of placer gold occurrences in other different parts of the country. Based on some assessment studies the gold being mined and produced by artisanal miners all over the country is estimated to be more than 3 tonnes (3000 kilo grams) per year. In addition to this, placer gold deposit that could be mined by legally and formally established artisanal mining cooperatives is also available in western, southern and northern parts of the country. The placer mining environment is extensively dug that there are physical land degradation, open tunnels and pits, deforestation etc which is becoming issue for the environment.

The financial surety to reclaim and rehabilitate such destructed area is not likely to happen unless special programme is going to be undertaken by the government itself with other international partners.

6.2 Capacity building and awareness of the sustainability issues

Mineral resource development and the license right administration requires applying best practices of the mining industry which in turn require adequate capacity building in order to get proper benefit from the mineral resource for the community, national economy and the companies in fair and transparent manner. Therefore to do such business in a realistic manner it is extremely important at this 21st century to be well aware of the socio-economic development by securing the rights of the local community and sustainable utilization and management of the environment starting from the top policy and decision makers' level to the implementation of strategies at national, regional and sub region as well as the local community levels. If we are able to manage and develop the mineral resource in proper manner it will contribute for the development of the national economy in sustainable way.

7. Conclusion

Mining is one of the main contributors for economic growth of Ethiopia that it increases the generation of foreign currency, saves foreign currency by substituting the imports of minerals and metals, creates employment opportunity and introduces the development of basic infrastructures and services in newly identified mining

activity areas which are found in different parts of the country. The activity of formally organised and licensed placer miners of precious minerals and gemstones helps directly and indirectly them (the local community), whose number could range from 3 to 5 million and out of which women involvement is up to 30 %, in poverty reduction by supporting their livelihood income as well as in extending alternative form of development such as introducing services (hotel, shops, etc), small cottage industries, modern farming practices and so on in Ethiopia.

The goal of the Government of Ethiopia is to facilitate the establishment of a large and diverse minerals industry in Ethiopia, which would underpin industrial development in the country, the well being and employment of Ethiopian citizens in line with gender equality principle, the earning of foreign exchange and the reduction of poverty, and the establishment of a vibrant and profitable private sector based mining industry, inclusive of mineral beneficiation, taking all aspects of the sustainable utilization of the Mineral resources.

As result of both the above indicated contribution of mining and the goal of the Ethiopian government, the government thus focus on Creating the necessary enabling legal, regulatory, fiscal and institutional environment for the private sector investment in mining, Carrying out promotional activities to attract private investment in the mineral sector, Strengthening its ability to effectively carry out its regulatory functions, Conducting basic geological mapping and maintaining up-to-date mineral resource data base, Providing extension services to artisanal and small-scale miners with a view to ensuring safe and environmental sound mining practices, Facilitating the development of adequate infrastructure for the mining development.

Thank you.