



Embassy of the Federal Democratic Republic of Ethiopia

Investment Opportunity in Mining Sector in Ethiopia



New Delhi, India
2015

1. Introduction

The Government of the Federal Democratic Republic of Ethiopia has formulated and implemented a five year Growth and Transformation Plan (GTP) from 2010/11-2014/15. The performance of the GTP so far has shown that Ethiopia can achieve her long term plan of becoming a middle income country by the year 2025. The 2nd GTP is being formulated with sound development policy and has sets an ambitious but achievable plan in its priority areas.

The government's main focus in the mining sector is to create a favourable environment for private investors for exploration and development of mineral resources. Among other initiatives, the government collects, analyse and interpret basic geo-science information for potential investors.

It is a fact that mineral exploitation holds enormous importance for agriculture, urban development, industrial development, construction, energy and other economic sectors. The core objectives for the sector in the GTP period include establishing accurate estimates of and utilising the reserves of minerals that contribute to increased agricultural production through improving soil productivity. During this period exploration to identify minerals whose exploitation will substitute for imported minerals will be carried out. For construction and industrial sector inputs, exploration for and exploitation of gold, platinum, tantalum and high value gemstones and other minerals will be initiated. These actions will also help increase foreign currency earnings.

2. Institutional Framework

There are two important bodies in the Ministry of Mines that serves as focal offices with regard to investment in the mining sector in Ethiopia.

The Geological Survey of Ethiopia GSE is an autonomous institution in the Ministry of Mines which is responsible to generate the basic geo-sciences data of the country including outlining potential targets for various minerals which will help to encourage and attract the companies to involve in the sector. It will also help investors to have the basic data to start their operation. All interested investors can obtain more detail and diverse geo-sciences data from the Geo-Information Centre of the GSE.

The Mineral Licensing and Administration Department within the Ministry is the other body which is looking after investment in the sector. It is serving as a regulatory body and is a focal point to receive, facilitate and process the applications presented by the foreign companies or Joint Venture with the local companies, and issue licenses. It will also regulate and supervise whether companies are conducting their operation activities in accordance with the agreement. Therefore, interested investors can contact the regulatory body in order to get further information on the mineral potential and candidate licensing areas for operations. (Contact Address of the focal offices are attached in Annex I)

3. Investment Opportunities in the Mining Sector

Ethiopia has prospective in mineral resources. Investors are invited:

- To prospect gold and associated base metals in unexplored and unoccupied areas by other companies,
- To prospect tantalum potentials in pegmatite rocks commonly confined within the Precambrian basement rocks in the vicinity of the active tantalite mine areas or elsewhere,
- To develop mine in already identified deposits of number of metallic, industrial and construction minerals/rocks such as iron, phosphate, coal, etc.,
- To explore for platinum group elements (PGE) in the ultramarine rocks of the western greenstone belt in the vicinity of the Yubdo platinum deposit or elsewhere,
- To carry out advanced exploration and development in Joint Venture with the already licensed companies
- To involve in value addition to the outputs of the mining sector, i.e., to develop mineral-based industries that consume mineral resources a raw materials e.g.
 - Cement industry: limestone, gypsum, clay, pumice
 - Glass factory: silica sand, feldspar, dolomite
 - Ceramics: feldspar, kaolin, quartz/silica sand
 - Fertilizer (inorganic) factory: potash, phosphate (apatite)
 - Steel Industry: iron (Fe), coal

4. Geology of Ethiopia

The Ethiopian geology consists of:-

3.1 Precambrian Basement Rocks which covers about 25% of the land mass. These rocks can be classified into two major types, i.e.,

- a. Archean to Lower Proterozoic high grade metamorphic rocks
- b. Upper Proterozoic, low grade meta-volcanic and meta-sedimentary rocks of green schist facies associated with meta-ultramafic to felsic intrusions exposed mainly in the north, west and south part of the country forming the *Northern, Western and Southern Greenstone Belts*, respectively.

3.2 Paleozoic to Mesozoic Sedimentary Rocks covers about 25% of the land mass

3.3 Cenozoic Volcanic and Sediments covers about 50% of the land mass.

4. Mineral Potential of Ethiopia

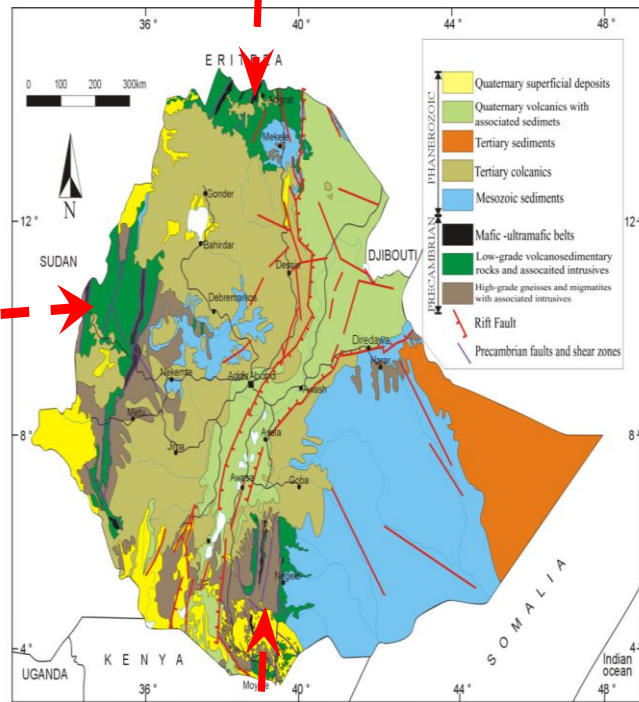
The mineral resources of Ethiopia are commonly hosted in:-

- a)** Greenstone Belts (an integral part of the Precambrian Basement rocks)
- b)** Paleozoic - Mesozoic sedimentary rocks and
- c)** Tertiary volcanic and sediments

The following maps show the exact locations of the minerals. (List of potential minerals of Ethiopia is shown in Annex II)

Northern Greenstone Belt

Western Greenstone Belt

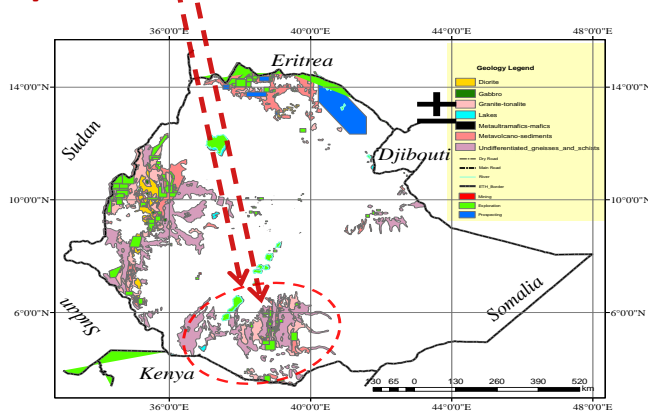


Southern Greenstone Belt

Simplified Geological Map indicating major Greenstone Belts of Ethiopia

3.1. Mineral Potentials in the Greenstone Belts:-

i) Southern Greenstone Belt



e) Chromite and Nickel occurrences

f) Industrial and construction minerals/ rocks (e.g. Feldspars, kaoline, gemstone)

Mineral potentials hosted in the Southern Greenstone Belt are:-

a) Primary Gold Deposit

Large scale gold mines:- Lega - Dembi and Sakaro Gold Mines (owned by the private company)



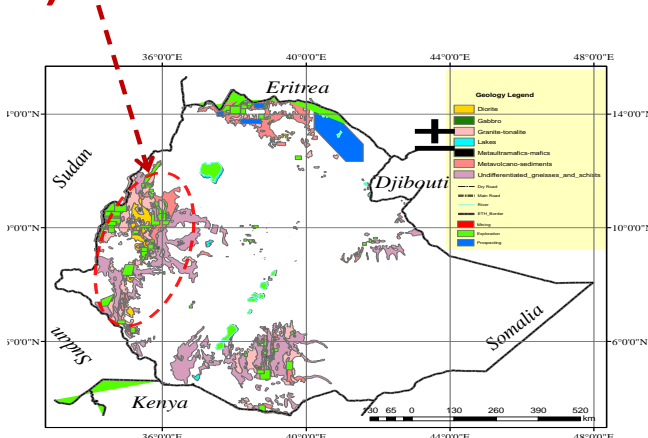
b) Placer gold deposit

(mined by Artisanal miners and small scale mining)

c) Columbo-tantalite deposit of **Kenticha area** (contains about 20,000 tones of tantalite ore and mined by the small scale mining)

d) **Phosphate (+ Iron) Deposits** of Melka Arba area containing about 160 million tons of phosphate and 10 million tons of iron

ii) Western Greenstone Belt



e) Base metal occurrences

f) Other industrial and construction minerals/ rocks (e.g. Marble, granite)

This belt hosts:-

a) Primary Gold Occurrences

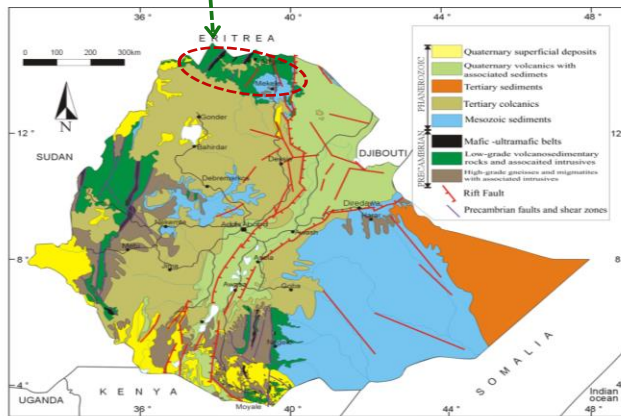
- Tulu Kapi and Metekel Au potentials at advanced stage of exploration (+feasibility study),
- Dul, Akobo, etc. occurrences

b) **Placer gold deposit** (mined by artisanal miners and small scale mining)

c) **Yuddo Platinum Deposit** (Small scale mining is terminated due to recovery problem)

d) **Phosphate and Fe Deposits** of Bikilal area (contains about 180 million tons of phosphate and 57 million tons of iron)

iii) Northern Greenstone Belt



c) Industrial and construction minerals/ rocks (e.g. Granite, gabbro, marble)

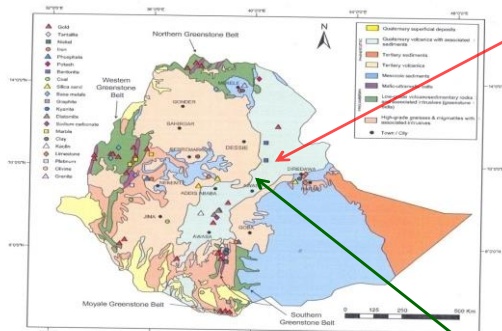
The major mineral potentials in this belt are:-

a) Primary Gold Occurrences (VMS Discoveries):-

- **Terer Au potential (Terer Cu-Zn-Au-Ag deposit):-** at advanced stage of exploration (a pre-feasibility study is in progress)
- **Terakimti Cu-Zn-Au-Ag deposit** (The Tera kimti VMS mineralisation is parallel to the Terer zone)
- **Adi Bladie Cu deposit**

b) Placer Gold Occurrences (mined by the artisanal miners)

3.2. Mineral Resources in the Tertiary volcanics & sediments



d) Epithermal Au and associated metals mainly in the EARS and other volcanic areas

e) Other Industrial and construction minerals/ rocks (e.g. Gypsum, pumice, limestone, clay, sandstone)



a) Evaporite deposits mainly in the Afar Depression:-

- **Potash** (at exploration & mining stage)
- **Salt** (rock salt, brine) – at small and large scale mining
- **Soda ash** (in Lake Abiyata and Shala) - mainly in the MER and contains about 460 million tons of reserve.

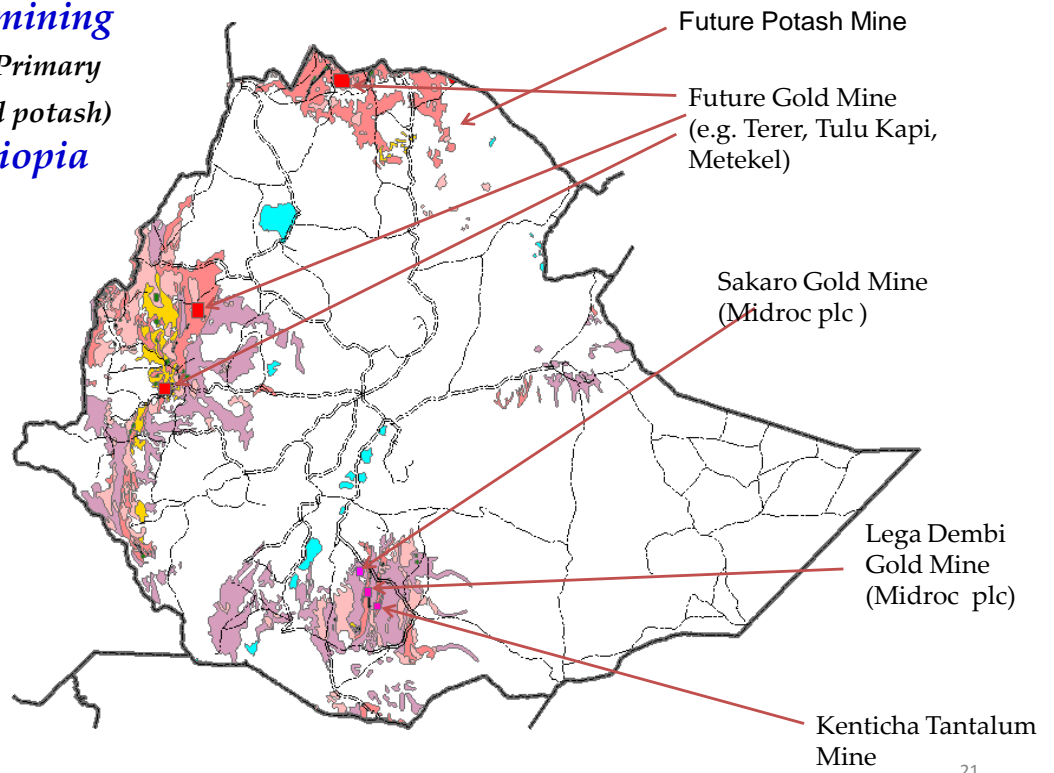
b) Gemstone (Opal) deposits mainly in the central part of the country

c) Geo – Energy Resources:-

- **Coal and oilshale deposits** (The coal and oilshale - bearing sediments of Ethiopia are mainly confined within the Tertiary sediments containing about **430 million** tons of coal reserve)

Geothermal Potentials mainly confined within the EARS . Of the estimated 5000 MW power generation from the geothermal potential, currently only 7.3 MW power is produced.

*Location of
some mining
sites (Primary
gold and potash)
in Ethiopia*



21

Types of Licenses = Reconnaissance + Exploration + Retention + Mining

License Type		Duration	Remark
Reconnaissance License		≤ 18 months + Non – renewable	A non – exclusive reconnaissance license is valid for a maximum of 18 months and may not be renewed.
Exploration License		≤ 3 Years + Twice Renewable + Extension of Renewals	<p>MoM Provides an exclusive exploration license for an initial period of three years (Initial Exploration Period = 3 yrs); renewed twice for additional terms of one year each and the extension of renewals may be allowed for a max. period of 5 years (1st Extension = 1 yr; 2nd Extension = 1 yr; -----).</p> <p>In applying for each renewal of an exploration license, the licensee shall indicate ≥ 1/4th portion of the license area to be relinquished.</p>
Retention License		≤ 3 Years + 3 years Renewal	<ul style="list-style-type: none"> • A retention license is valid for a max. period of 3 yrs. and renewed once for a period not exceeding 3 years. • This license will be issued if the discovered mineral deposit can't be mined profitably.
Mining License	Artisanal Mining License	≤ 3 Years + Twice Renewable	An artisanal mining license shall be valid for a maximum period of three (3) years and renewed twice for three (3) years each.
	Small scale mining license	10 Years + 5 Years Renewal	A small scale mining license shall be valid for a maximum period of ten years and may be renewed for a maximum period of five years unlimitedly.
	Large scale mining license	≤ 20 Years + renewable	MoM Provides a large scale exclusive mining license for a maximum period of 20 years with unlimited renewals of 10 years each

4. Why Invest in Ethiopia?

Stable Political and Economic condition

- Mature and stable political environment
- Stable social and economic environment
- Peaceful and friendly people
- Zero-tolerance to corruption
- Fastest growing economy with a double digit GDP growth rate for the last 11 years.
- Third largest economy in Sub-Saharan Africa, after South Africa and Nigeria and the third fastest growing economy in the world.

Strategic location and Market Access

- Strategically located in Eastern Africa with easy access to the lucrative markets of the Middle East, Europe and Asia,
- Vast market opportunities to domestic, regional and international markets.
- Second largest domestic market in Africa with close to 90 million consumers,
- Access to markets of 19 member states of COMESA, Common Market for Eastern and South Africa, with a population of over 400 million with a preferential tariff rates,
- Preferential access to European Market under EU's everything-But-Arms (EBA),
- Preferential access to Austria, Canada, Finland, Japan, Norway, Sweden, USA and most other EU countries under Generalized System of Preference (GSP),
- Under the African Growth and Opportunity Act (AGOA) program, Ethiopia is entitled to duty-free U.S. market access.

Natural Resource

- Exceptional climate due to location on highlands, half the country experiences average annual temperatures of 20°C to 30°C,
- Untapped natural resources and fertile soils,
- Sufficient surface and ground water resource

Investor friendly policies

- Government policies encourages and supports FDI,
- Government invests on infrastructure, telecommunications and other facilities,
- Industrial zones are being prepared with the necessary infrastructure and facilities.
- A one-stop-shop service is provided by the Ethiopian Investment Commission.

Labor

- Ethiopia has abundant, hard working, disciplined and easily trainable workforce,
- Universities, engineering colleges and technical and vocational training schools annually providing trained personnel,

- English is medium of instruction and is understood by many people.
- The minimum monthly wage for labor is Birr \$60.

For further information please contact:

Business Section

Embassy of the Federal Democratic Republic of Ethiopia

7/50-G, Satya Marg, Chanakyapuri, New Delhi -110021

Tel +91 11 2611 9513/14, Fax +91 11 2687 5731,

Email: jerusalemamde@gmail.com, delethem@yahoo.com,
ethiopianemb@yahoo.com

Website: www.ethiopiaembassy.in

Annex I

Contact Addresses

Ministry of Mines
Mineral Licensing and Administration Directorate
PO BOX 486
Addis Ababa, Ethiopia
tel: [251 11] 646 12 14
fax: [251 11] 646 34 54
email: sisayfty @yahoo.com
email: mineral_operations@mom.gov.et
www.mome.gov.et

Geological Survey of Ethiopia
Ministry of Mines
PO BOX 2302
Addis Ababa, Ethiopia
tel: [251 11] 646 33 25
fax: [251 11] 646 33 26
email: survey@telecom.net.et
www.geology.gov.et

Annex II

Mineral Potential of Ethiopia

No	Mineral Type	Areas of Occurrence	Resource/Reserve Potential (tons)
1	Gold	Adola, Moyale, Metekel, T , Dul, Oda, Godere, Benshangul, Akobo, Tigray	>200
2	Tantalum	Adola/Keneticha	19435
3	Platinum	Yubdo, Oromia	12.5
4	Cooper	Benshangul Gumuz, Tigray	Indications
5	Iron	Blkial, Melka Arba and Others	68.4 M
6	Nickel	Adola	17M
7	Manganese	Afar/Inkafala	207563
8	Molybdenum	Benshangul Gumuz	Indicators
9	Limestone	Mekele, Abay, Butajira, Ogaden, Denakil, Dire Dawa, Harar	>900M
10	Pumice	Rift Valley	Many million tons
11	Gypsum	Tigray, Oromia, Amhara	57.4M
12	Clay	Mossobo, Dire Dawa, Melka Jebdu, Debre Birhan, Burayu	21.6 M
13	Scoria	Rift Valley	Many million tons
14	Potash	Afar	1.38
15	Phosphate	Bikla, Melka Arba	181M
16	Marble	Daletti, Mora, Baruda, Bullen, Hulakuni, Tigray	100M
17	Granite	Harrari, Meleka, Anger Gutten, Hamaressa, Tigray, Babile	70M
18	Silica Sand	Mugher Valley, Jemma River	3.4M
19	Feldspar	Adolla/Kenticha, Babile, Shebele	500000
20	Quartz	Adola/Kenticha, Somalie	400000
21	Dolomite	Kenticha, Galetti, Harrari	2M
22	Diatomite	Adami Tulu, Gidicho Island, Abiyata, Shalla, Chele Jilla	>120M
23	Bentonite	Afar (Gewane, Mille, Warsisa), Gidicho Island	172M
24	Soda Ash	Ziway, Abiyata, Shala, Chitu	460M
25	Salt	Afdera, Asele Lake, Afker, Mega, Berahle	4.3B
26	Sulfur	Afar (Dofan, Chibrit, Ali, Zariga)	6M
27	Graphite	Moyale	460000
28	Kyanite	Chembi/Kibremengist	>10M
29	Talc	Anno/Kibremengist	118175
30	Coal	Moyale, Delbi, Yayu, Chliga, Gojeb, Mush, Sarwiha, Kunzila	>360M
		Wuchale, Haik, Dese, Mersa, Arjo, Nejo, Mendi, Kindo, Halal, Morka, Jeren, Lalosapo	Indications