

Sustaining Congo River and its Communities: Congolese Mining Industry to Grow Green

**Hibert Kirongozi, President and Founder, Investhill sprl,
Kisangani, The Democratic Republic of Congo (Zaire)**

1. Congo River

Situated at the heart of the Central Africa region, Congo River is a vital asset for its Communities, the Democratic Republic of Congo (DRC), Africa and the World. With 4,700 km (2,992 mi), Congo River is the second longest river in Africa and the fifth longest river in the world. It drains a basin area estimated to 3,680,000 km² (1,420,848 mi²) with an average discharge of 42,000 m³ (1,476,376 ft³) of water per second into the Atlantic Ocean. It positions itself as one of the largest rivers in the world in area of its watershed and in the volume of water discharged into the sea. It carries more water than any river in the world, except the Amazon in the South America.

Congo River Watershed

Congo River headstreams rise in the northern Zambia and southern DRC, which feed Lualaba river in Katanga Province (a DRC province), which then becomes Congo River below Boyoma falls in Kisangani, Eastern Province, northern DRC. From Kisangani, Congo River flows to the west, then bends to the south west and ends into the Atlantic Ocean. On its way to the Atlantic Ocean, Congo River rivers is joined by seven main tributaries (Lomani, Aruwimi, Mongala, Ruki, Ubangi, Sangha and Kwa (Kasai) rivers) and many small rivers. Seven countries directly share Congo River watershed: The Democratic Republic of Congo, The Republic of Congo, Cameroon, Central Africa Republic, Tanzania, Zambia and Angola. Among them, DRC occupies the largest part.

Riverine Communities Activities

The majority of Congo's riverine communities live with fishing and agriculture. Congo River basin offers vital potentials for fishing and agriculture activities. Congo River waters posses 700 species of fish, with 500 species as endemics fish species. Fishing has been sustaining the livelihoods of several Congo reverine communities for millenniums. Congo River basin offers approximately: 1,692,800 km² (653,591 mi²) of grassland; 331,200 km² (127,877 mi²) of wetland; 257,600 km² (99,460 mi²) of cropland; and zero km²/mi² of arid land. Agriculture occupies more than 80% of man power and maintains the living of more than 80% of the population in this zone.

Congo River value to its communities is not only limited to fishing and agriculture activities but it is also the soul of some riverine communities' intangibles assets, including: Traditions, Cultures, Know-how, Histories, Believes, Expressions, etc.

3. Congolese Mining Industry

The exploitation of ores in the Democratic Republic of Congo is achieved by public, parastatal and private mining companies for industrial production and by artisanal

mining operators. Since several decades in different provinces throughout the country, some mineral resources are industrially and artisanally exploited. Though facing several difficulties, mining exploitation is the pear-head of DRC economy with 28% as its contribution to the Gross National Product (GNP). Mining exports represent about 70 % of all the export value of DRC.

Congolese Mining Potentialities

Most of mineral deposits known today had been discovered about one century ago, using rudimentary methods and techniques. The probability to discover others deposits by modern techniques of investigation is very high.

Indications about DRC mineral reserves for some substances known today:

- Diamond: 206,000,000 carats
- Iron: 1,000,000,000 tons
- Copper: 75,000,000 tons
- Lithium: 31,000,000 tons
- Niobium: 30,000,000 tons
- Manganese: 7,000,000 tons
- Zinc: 7,000,000 tons
- Cobalt: 4,500,000 tons
- Tin stone: 450,000 tons
- Gold: 600 tons.

Congolese mining potentialities are geographically scattered throughout the country. From the north to the south, from the east to the west, each province of DRC detains mineral deposits. *The following are some mineral indices by province:*

Eastern Province (Orientale): Gold, diamond, clays, copper, iron, kaolin, niobium, ochre, phosphates, saline, bituminous schists and talc.

North Kivu: Clays, tin stone, basnaesite, emerald, coal, granite, monazite, niobium, gold, wolfram, tantalum and calcareous.

South Kivu: Gold, tin stone, amblygonite, silver, basnaesite, emerald, bismuth, diamond, diatomite, monazite, niobium, wolfram, zinc, tantalum and calcareous.

Katanga: Copper, cobalt, uranium, niobium, gold, platinum, lithium, talc, tantalum, wolfram, zinc, clays, bismuth, cadmium, tin stone, coal, iron, granite, emerald, sapphire, diamond, silver and calcareous.

Maniema: Gold, tin stone, amblygonite, lithium, clays, copper, diamond, iron, kaolin, manganese, niobium, lead, talc, tantalum and wolfram.

Equator: Diamond, gold, iron, calcareous, kaolin, clays, copper, granite, niobium and ochre.

Eastern Kasai: Diamond, clays, gold, chrome, nickel, cobalt, copper, iron, kaolin and talc.

Western Kasai: Diamond, clays, gold, chrome, nickel, cobalt, platinum, copper, iron, kaolin, lead and saline.

Bandundu: Diamond, kaolin and clays.

Kinshasa: Clays, silica and kaolin.

Bas-Congo: Bauxite, copper, lead, zinc, vanadium, asphaltic sands, gold, diamond, manganese, marble, granite, rock salt, iron, clays, gypsum, pyrite, talc, silica, kaolin, baritane and calcareous.

Congolese Mining Exploitations

Congolese mining industry is characterized by industrial and artisanal exploitations.

Industrial exploitation: Industrial exploitation is mainly achieved by public and parastatal companies and some private companies, including foreign companies such as: Forrest, Anvil Mining, Anglo Gold, Lundin, Tremalt, Ashanti Gold fields, First Quantum and others. The exploitation is concentrated on the Eastern and South-Central part of the country: Katanga Province, Eastern Province (Orientale), and Eastern and Western Kasai Provinces. According to DRC Ministry of Mines guide of mining investors (June 2003), there was about 16 industrial mining companies operating in the above mentioned part of DRC (11 in Katanga, 2 in Eastern Province, 2 Eastern Kasai and 1 in Western Kasai). Beyond that: 7 projects were in negotiation; 4 projects waiting for mining rights; 40 new bankable projects; and 38 exploration exclusive zones granted to foreign investors by the government.

Artisanal exploitation: Three decades ago, artisanal exploitation activities in DRC were centred only on gold and diamond. Today it has spread out to other precious and semi-precious stones, including: Emerald, sapphire, ruby, heterogenite, coltan and so on.

Diamonds from artisanal production are provided mainly by the followings major centre: Tshikapa in Western Kasai, Mbuji-Mayi in Eastern Kasai, Kisangani in Eastern Province, Kahemba and Tembo in Bandundu.

Gold from artisanal is exploited everywhere in DRC along streams, rivers and terraces.

4. Congolese Mining and Congo River Water

From Congo River headstreams in Katanga Province, via Congo River starting point in Kisangani (Eastern Province), to the Atlantic Ocean in Bas-Congo Province. The majority of Congolese Mines are connected to Congo River waters. Regarding Gold and Diamond, almost all mines are located along Congo River and its streams, rivers and terraces.

The major environmental impacts caused by mining activities into Congo River are water pollution and the degradation of riverbanks. Both have negative impacts to the existence of Congo riverine communities and Congo River ecosystems. Meanwhile, these impacts can be minimized if Congolese Mining Industry uses environmentally sounds machines, technologies and practices accompanied with implementation of environmental conservation/rehabilitation projects.

Although in Congolese mining laws, it is mandatory for mining companies willing to operate in DRC to have environmental protection and social programmes to be

implemented when operating. It has been remarked that, for various reasons, a big number of mining companies do not implement the above mentioned obligations accordingly. Some mining operators push forward reasons such as: The cost of production and related risks; the acquisition of new environmentally sound machines/technologies being costly to the business; Investment needs pending longer; Lack alternatives; etc.

5. Congolese Mining Industry to Grow Green

Above all, it is clear that Mining Industry is a major driver of Congolese economy, therefore, a major driver of DRC development. The cases of Australia, South Africa, Ghana and other have shown that Mining Industry can drive the development of a country. Today's trends show that Congolese Mining Industry is growing and will keep growing up in upcoming years. Foreseeing that, we foresee also the impacts on the environment, including on Congo River and its communities. To conciliate both DRC economic development and the sustainability of DRC environment, including Congo River and its communities, Congolese Mining Industry should grow green.

6. Investhill Approach

Whilst, responsible mining means, when operating: Mining operators should – minimized environmental damages from their mining activities; implement activities geared toward a sustainable management of mines linked environments; and invest in socio-economic development of mines' linked communities. As Congo River, Congolese Riverine Communities and Congolese Mining Industry are all vital assets for DRC development and prosperity. It is wise to support the growth of Congolese Mining Industry at the same time to support also the sustainability of Congo River and its communities.

Contributing to that, Investhill assists Congolese mining operators to grow green by: Identifying sources of funds (co-funding) for environmental project; assisting mining operators to access environmental funds; assisting and facilitating mining operators to acquire new environmentally sound machines, technologies and know-how; facilitating mining operators to partner and network, including with mine's linked communities; and assisting mining operators to identify alternatives.