

Irob region's natural resource assessment that can prove food self sufficiency of its people

By Alema Tesfaye, Washington DC, USA

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Part 2

Dimension (construction) and decorative stones' reserve of commercial importance in Irobland that can help to improve the livelihood conditions of the Irob people

On part 1 of this article, the author tried to mention different opportunities that Irobland offers and ways of exploiting those opportunities to improve the livelihood condition of the Irob people who are living under the worst economic and political conditions. Besides, the author has conducted detailed scientific assessment of Assimba area's spring waters particularly focusing on water chemistry to help in determining the feasibility of these waters for commercial development purposes. The intention is that it can be crucial in assisting to decrease the unemployment rate of the Irob youth and improve their livelihood conditions which would in turn reduce the migration to foreign countries. It is every Irob's duty to enlighten the futurity of the hopeless Irob youngsters who are migrating to different Middle East countries facing extreme difficulties and dangerous itineraries en route. Based on this, the author of this article is forced to write part two of the previous article entitled "Irob region's natural resource assessment that can improve food self sufficiency of its people" which is dedicated to give some detailed facts and personal views on important reserves that Irobland possesses.

The second important opportunity that Irobland provides/offers and will be discussed here, after the previous topic on "Assimba spring water assessment and development for commercial use", is the building stone (granite) and decorative (marble) reserves (potentials) of the highest commercial values. Due to this, the need for utilization of these stones' sale for commercial purposes is highly recommended in order to create certain employment opportunities in the region. The structural

(dimensional) and decorative uses of these precious stones are usually distinctive. And the stones used for decoration are usually more expensive than structural stones. Therefore, in this part of the article, I want to present the reserves that Irobland is endowed with and ready to be exploited in order to improve long term economic stability and development of the region.

Based on the above aspects, the author of this article will try to address two important mineral reserves of economic importance that are located in the Irobland:

1. Granite mineral reserve of the structural (building) importance

Granite in the Irobland is one of Ethiopia's high quality building materials that are needed for construction or structural purposes. It is massive (lacking internal structures), hard and tough, dense and durable igneous rock with very high resistance to heat and other forms of stresses. Its durability, the time measure of its ability to endure and maintain its essential and distinctive characteristics of strength, resistance to decay, appearance, Color, texture and pattern make it to be qualified as one of the most popular and wanted construction materials in the world and hence in the Irobland. Usually these building stones possess sufficient strength and rigidity to support free-standing structures, and are amenable to the technical and organizational resources of the culture wishing to use them. In addition, granite mostly comes in elegant patterns and designs and can easily be fabricated (i.e., trimmed, cut, drilled, ground, or other) in to specific sizes or shapes. And the good news is granite of the Irobland is one of the best construction materials that encompass all of the above requirements.

The granitic mineral reserve in the Irobland can be widely used as

I. Building Purposes: Granite is widely utilized as a key building stone for the construction of monuments, houses (buildings) as well as other structures. This is because it has hard texture and durability which enables it to serve a good purpose as a major construction material.

II. Countertops: Granite countertops are known to be very elegant looking and durable. The very presence of granite countertops in your kitchen, floor or room can enhance the entire appeal or beauty of your home.

III. Floor Tiles and Wall Panels: Granite tiles are now adorning the bathrooms and kitchens of the affluent all over the world. Such granite floor tiles and tiles are capable of enlightening the look of a very dull looking room.

Granite is found in a good amount of reserve in Irob region. Kinkintay, Asabol, Duto (Magabidaga), Kitra (Dawhan), and the ridge extending from Kinkintay to Duto, are formed from the one of Ethiopia's highest quality post tectonic granitic intrusions. Besides that, granite forms the prominent mountain of Assimba with the height of about 3205 meters above sea level. These intrusive rocks (minerals) in Irobland are of variable dimensions and are characterized as mostly massive to weakly foliated at the vicinity. The Assimba area's granite also consists of subordinate diorites located particularly at Undufe, Elal-Daga (Harade), and the whole Sabata terrain. It is also one of the best quality building stones that are particularly located at those specific vicinities of Irobland.

Mineralogically, post tectonic granites in the Irobland are generally coarse-grained alkali potash and its characteristic minerals are microcline, Perthite, Sodic plagioclase, (zoned) Biotitic and Green pleochroic Hornblende with Sphene & Appetites as accessory minerals. The chemical or mineralogical composition of its constituents varies between the following values:

	SiO ₂ (%)	Al ₂ O ₃	Na ₂ O (%)	K ₂ O (%)
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Maximum	68.2	18.4	7.1	2.9
Minimum	63.6	14.0	5.9	2.7

The above listed mineralogical compositions of the Irobland's granite makes it the most stable, resistant to any type of stresses and changes related to weather and hence classified as one of the highest class for construction materials. The above minerals are stable and can not be changed in to another type of minerals when exposed at the prevailing climatic conditions of the Irobland.

2. Marble reserves of decorative importance in the Irobland

In scientific parlance, marbles are limestones that have suffered metamorphic recrystallization, and are used for decorative rather than for structural purposes. The best out crops of marble in Irobland are known in Alitena area particularly at 14° 32'N, 39° 35' E, Geta terrain of Siralo locality of Arae (Da-buda) administrative unit, at the southern slope of Arae-koma that slopes towards Misdado water point, Dawhan valley striking towards Sibida terrain, Madore area (Dawhan), Ado-Mela (dawhan), and Gebidawo particularly Ududa ridge (with of course small marble presence

indications at Ududa, Gibedawo and Madore area , Dawhan), etc. However, the amount of its reserve differs at respective localities with the highest amount of reserve that can easily and highly exploited for commercial purposes being located at Geta terrain of the Seralo locality of Arae administrative unit. Marble which is located at this and the above mentioned vicinities of the Irobland is one of the best and highest quality decorative stones in Ethiopia.

Because of the above mentioned critical reasons, construction of a factory that produces granitic building/construction and decorative (marble) stones that can serve to exploit these precious reserves is highly recommended at one of the above listed localities. The factory to exploit these reserves would easily be set up and be used to cut, shape marble and granitic reserves making ready for sale, and ship out the products to the trade professionals and other regional (and national) customers. The trade professionals would have full trade accounts with well dedicated sales that encompass technical departments. Their customers also could encompass builders, carpenters, joiners, electricians, plumbers, and other trade professionals who need materials and supplies quickly at cost effective prices. This would create ample employment opportunities for the helpless and futureless youngsters in the Irobland so as to re-discover their hopeful future that was darkened to them, improving their livelihood standards, and contributing important steps in alleviating the current financial problems of Irob youth.

To implement this, all Irobs in Diaspora and back home must form tight and hand in glove type of network to coordinate the efforts of individual citizens so as to serve their people by contributing money to build this small factory that can cut and shape the granite and marble and make them ready for sale. If all Irobs in Diaspora and home could contribute small amount of money and build the factory, all the income generated (obtained) from this factory would be re-invested in further exploitation of these precious reserves or could be invested in agricultural expansion, reforestation activities etc. that can bring sustainable change in the current status of Irobland and its people's food dependence.

To be continued.....