

## ***Opportunities***

- Columbo – tantalite showings have been traced along the regional structure south and north of Kenticha
- Tantalite is being exploited by small scale miners but not supplied to EMDSC
- Other rare metal indications are also reported in eastern Ethiopia and the Ethio – Somalia border near Hargessa, and uraniferous province may also be found
- Upgrading the Kenticha plant by extracting additional commodities (oxides) from the ore and tailing could be the focus of mining

## **Recommendation to Li – bearing resources**

- A number of samples' analysis is required
- Erratic or homogenous nature of the ore-bearing pegmatite
- Monomineralic contents of spodumen and lepidolite be determined
- The grade of  $\text{Li}_2\text{O}$  of the ore to be known
- The size of the deposit in terms of  $\text{Li}_2\text{O}$  to be estimated

## ***Uranium Exploration Efforts***

- Efforts to discover uranium deposits in all favorable geological terranes of Ethiopia are very minimal
- The most systematic exploration activities so far known are implemented in the southern part of the country in the late 1960s around Wadera (Sidamo), and very recently in Werri areas (Bale)
- From these activities, the favorable geological environment is represented sediment-hosted and pegmatite vein-related mineral indications
- The most known anomalies are related to accessory minerals (except carnotite reported from Harar)
- The joint cooperation activities between JSC and GSE should be strengthened in order to define the uranium resources of the country
- The initiation of proposals and consideration by GSE to include the Airborne Geophysical Survey in the Growth and Transformation Plan of the country is encouraging to solve the most challenges of uranium resource definition

# **GEO-SCIENCE SURVEYS COVERAGE**

## ***Geological Survey of Ethiopia***

***Geoscience Information* contribution comprises:**

- **56.8% of the country is mapped at 1:250,000 scale, and the maps and accompanying reports, Geological Map of Ethiopia (Second edition) at 1:2,000,000 scale**
- **85% the country's coverage at 1:500,000 scale by ground gravity survey and the products are under preparation for publication**
- **2.7% of the country at 1:250,000 – 1: 100,000 scale geochemical maps and reports**
- **49.5% of the country at 1:250,000 hydrogeological map and full-coverage at 1:2,000,000 hydrogeological map with accompanying reports and other detail scales information generated**
- **Geosciences information of potential target areas generated at detail scales for 51 industrial, 42 metallic and 12 coal and oil shale**

- **Engineering geological map and reports of 12.8% country's coverage produced at 1:250,000 scale**
- **Geothermal resource detail surface exploration at so far covered 15% of 16 target areas from which Aluto-Langano and Tendaho geothermal fields reached at advanced stage**
- **Airborne radiometric and magnetic surveys at variable scales and airborne gravity survey coverage with a line interval of 10km for geodetic purposes as a research activity are available**

<b>Status and Program Goals of Data generation in Ethiopia</b>		
<b>Program</b>	<b>2010/2011</b>	<b>2014/2015</b>
<b>Geological mapping at 1:250,000</b>	56.8%	100%
<b>Ground gravity coverage at 1:500,000</b>	85%	100%
<b>Geochemistry at 1:100,000–1:250,000</b>	2.7%	4%
<b>Airborne geophysics (Very diverse purpose and quality)</b>	30%	95%
<b>Geo-hazard study coverage at 1:250,000</b>	12.8%	27.1%
<b>Hydro-geological mapping at 1:250,000</b>	49.5%	83.7%
<b>Detail Geothermal investigation</b>	15%	68%
<b>Detail industrial minerals exploration</b>	51 in No	77 in No
<b>Detail metallic minerals exploration</b>	42 in No	60 in No
<b>Geoscience data on-line service</b>	100 per annum	5000 per annum



Status of 1:250,000 scale Regional Geological Map coverage in the country.

# Regional Geochemical Survey Coverage

