



REGIONAL WORKSHOP ON THE APPLICATION OF UNITED
NATIONS FRAMEWORK CLASSIFICATION 2009 (UNFC-2009)
FOR URANIUM RESOURCES. **RAF/2011/001**

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UNFC-2009 AS A REPORTING
TOOL FOR CAMEROON

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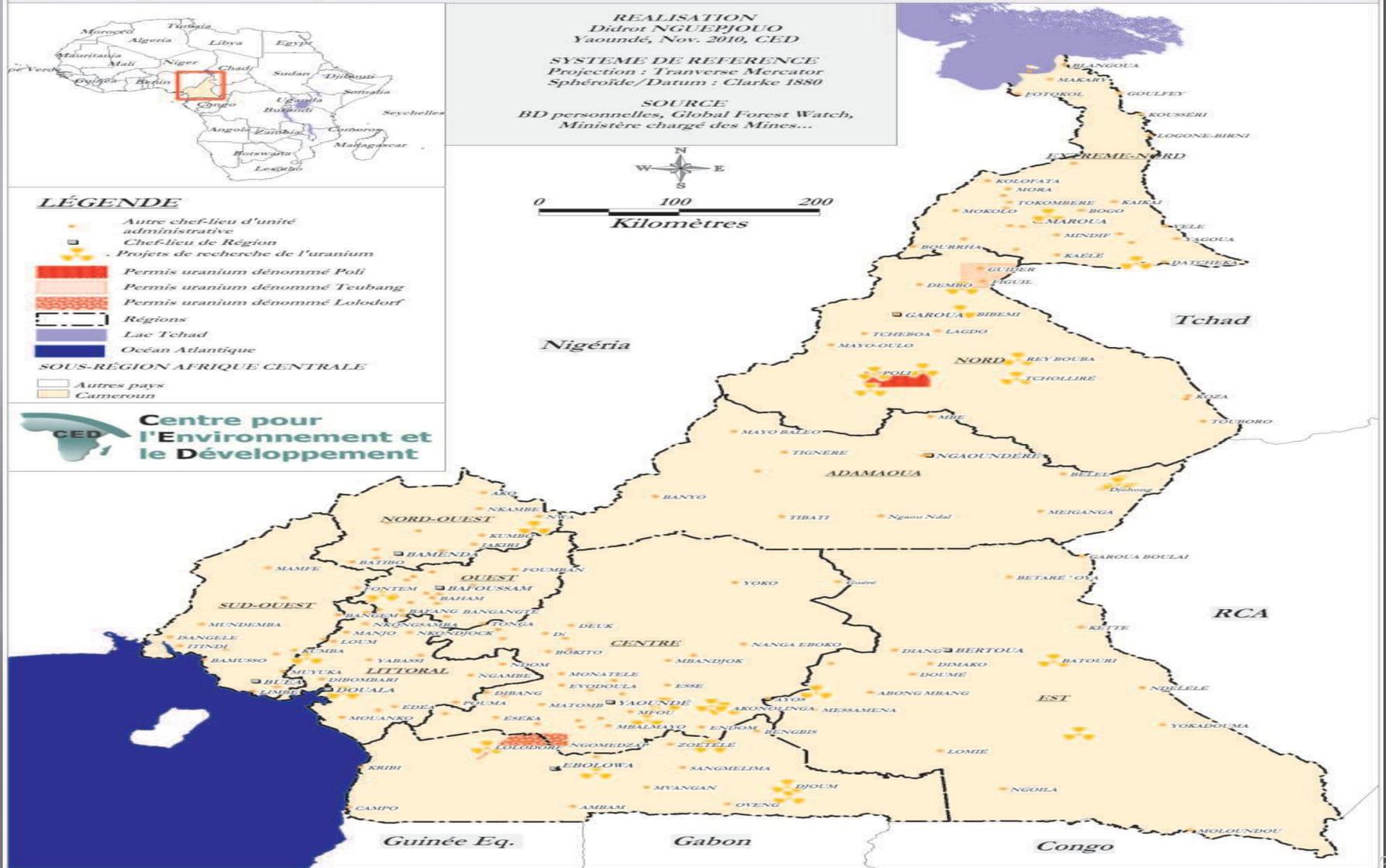


OUTLINE

- ▣ LOCATION OF POTENTIAL URANIUM PROVINCES IN CAMEROON/COMPANIES INVOLVED
- ▣ THE MAIN URANIUM DEPOSITS IN CAMEROON
- ▣ APPLICATION OF UNFC-2009 FOR URANIUM IN CAMEROON
- ▣ BENEFITS OF UNFC-2009 TO CAMEROON
- ▣ CHALLENGES, PROSPECTS AND NEEDS
- ▣ CONCLUSION

LOCATION OF POTENTIAL URANIUM PROVINCES IN CAMEROON/ COMPANIES INVOLVED

QUELQUES PROJETS DE RECHERCHE DE L'URANIUM AU CAMEROUN





LOCATION OF POTENTIAL URANIUM PROVINCES IN CAMEROON/COMPANIES INVOLVED

- ❑ Cameroon is found on bedrock that consist of metamorphic rocks, sedimentary and Igneous origin.
- ❑ Uranium is present in many parts of the country sometimes as indicators and at other times as deposits.
- ❑ The three main uranium deposits existing in Cameroon are in Kitongo (Poli, Salaki, Voko and Gouna) located in the North, Lolodorf in the South and Teubang in the Nord-East of Cameroon. The main potential uranium reserve in Kitongo (Poli) is estimated to be 13, 125 tons, and in Lolodorf, 11,000 tons.
- ❑ The minimum uranium concentration of these deposits is 0.1%. The uranium concentration of other mines worldwide is estimated between 0.05 and 0.5%, so these two reserves are considered to have a fairly high concentration.
- ❑ Currently, there are no projects actually exploiting (extracting) uranium in Cameroon. However, many companies are in the research/prospection phase (as shown in the map on the previous page). The size of many reserves is still unknown.



LOCATION OF POTENTIAL URANIUM PROVINCES IN CAMEROON/COMPANIES INVOLVED

COMPANIES RESEARCHING ON URANIUM IN CAMEROON

N°	Compagnies	Localisation	Minéraux recherchés	Type de permis	Pays d'origine
01	African Aura Resources	Batouri	Uranium...	Recherche	Grande Bretagne
02	African Aura Resources	Rey Bouba	Uranium...	Recherche	Grande Bretagne
03	African Aura Resources	Tcholliré II	Uranium...	Recherche	Grande Bretagne
04	Caminex	Akonolinga	Uranium...	Recherche	Grande Bretagne
05	Caminex	Djoum III	Uranium...	Recherche	Grande Bretagne
06	Caminex	Ntem	Uranium...	Recherche	Grande Bretagne
07	East Mining Corporation (EMCO) S.A.	Medoum	Uranium...	Recherche	Cameroon
08	Fer du Cameroun	Bateka	Uranium...	Recherche	Cameroon ?
09	Mega Uranium	Gouna	Uranium...	Recherche	Canada
10	Mega Uranium	Lolodorf	Uranium...	Recherche	Canada
11	Mega Uranium	Poli	Uranium...	Recherche	Canada
12	Mega Uranium	Salaki	Uranium...	Recherche	Canada
13	Mega Uranium	Teubang	Uranium...	Recherche	Canada
14	Mega Uranium	Voko	Uranium...	Recherche	Canada
15	Ridgeway Energy Sarl	Bantadjé	Uranium...	Recherche	Grande Bretagne
16	Ridgeway Energy Sarl	Mbanga	Uranium...	Recherche	Grande Bretagne
17	Ridgeway Energy Sarl	Ekomedion	Uranium...	Recherche	Grande Bretagne
18	Ridgeway Energy Sarl	Essong	Uranium...	Recherche	Grande Bretagne
19	Uranex S.A. (Resource Generation Ltd)	Monguelé	Uranium...	Recherche	Australie
20	Uranex S.A. (Resource Generation Ltd)	Badekok	Uranium...	Recherche	Australie
21	Uranex S.A. (Resource Generation Ltd)	Nki	Uranium...	Recherche	Australie
22	Xplor-Tech	Teubang II	Uranium...	Recherche	?
23	Xplor-Tech	Mayo Oulo	Uranium...	Recherche	?



COMPANIES RESEARCHING ON URANIUM IN CAMEROON

The above table shows the various companies that have been directly or indirectly involved in Uranium research/exploration in Cameroon.

We can see that uranium exploration in Cameroon was mainly done by Mega Uranium Corporation Cameroon PLC (Canadian Company). She obtained her permits through the acquisition of NU Energy Corporation in August 2007. This company had three projects consisting of six concessions with a total area of 4654 km² in Cameroon namely: Kitongo (Poli, Salaki, Voko and Gouna), Lolodorf and Teubang concession.

This company stopped exploration works due to lack of adequate finance. However, the Government has begun carrying out its own exploration of the mineralogical potential of Cameroon, which includes uranium.



THE MAIN URANIUM DEPOSITS IN CAMEROON



Figure showing the geographical location of the Kitongo Uranium deposit in Cameroon.

The Kitongo : Under Kitongo, we have the Poli, Salaki, voko and Gouna concessions.

Following Mega's news release of March 3 2009, the best intersections in Mega's holes were; 3.4m @ 0.10% U₃O₈, 3.0m @ 0.13% U₃O₈ and 41.9m @ 468 ppm U₃O₈. Therefore, uranium mineralization is concentrated in zones of albitised granite lying parallel to the ENE-trending Kitongo fault, and also occurs to a lesser extent along crosscutting faults of a NW trend. The uranium mineralization occurs as uraninite in the form of disseminations in wide zones of albitised granite, and in high grade veins.



- **The Poli Concession.** The survey area offers a sole natural transect that enables a geological cross-section of granite contact zone over a maximum length of 64m.
- **The Salaki Concession:** *Its is* located 22 km WSW of the Kitongo mineralisation. Ground radiometrics, delineated a 500m long zone of elevated values in the range 100 to 12000 cps in volcanics and intrusive rocks along a major NW-tending fracture. *This* showed that the uranium mineralisation occurs mainly in zones hosted predominantly by albitised microdiorite.
- **The Voko and Gouna Concession:** Located in northern Cameroon, southeast of the small village of Poli. Access is achieved via two east-west dirt roads that connect with Cameroon's main north-south sealed road, east of the project area. Exploration had to stop here due to conflict on the Chad Cameroon border.



THE MAIN URANIUM DEPOSITS IN CAMEROON

□ *The Lolodorf:* Uranium project is located in Southern Cameroon, approximately some 100 Km by road south of the capital city Yaounde. The Uranium mineralization at Lolodorf is hosted in a 2 – 5km wide zone of syenitic intrusive rocks, that extends over a length of 80Km east of the town of Lolodorf.

In 2008, Mega conducted ground radiometrics and trenching of a prominent and easily accessible radiometric anomaly in the Ngombas sector, but planned follow up drilling in 2009 was deferred in order to test higher priority targets in the Salaki prospect. In 2011, field work focused on ground assessment of other significant radiometric anomalies elsewhere, along the 70km long belt with a view to delineating additional targets for drill testing done in 2012.



THE MAIN URANIUM DEPOSITS IN CAMEROON

▣ *The Teubang*: Located in North East Cameroon adjacent to the Chad borders, some 60Km North East of Garoua. The Uranium mineralization in the Teubang province is hosted by Potassic-rich granitic intrusions, of late proterozoic, hence Uranium occurs at varying grades between 200 to 1900ppm.

In October 2007, Mega conducted a detailed helicopter-borne magnetic-radiometric survey over the area comprising 8900 line km at a line spacing of 150m and flying height of 30m. The survey highlighted numerous radiometric anomalies and other areas of interest, but due to uncertainties about the precise location of the Cameroon-Chad border, ground follow-up was delayed until January 2009. Since then, a number of anomalies have been investigated by ground radiometric surveys, trenching and chip sampling with encouraging results.



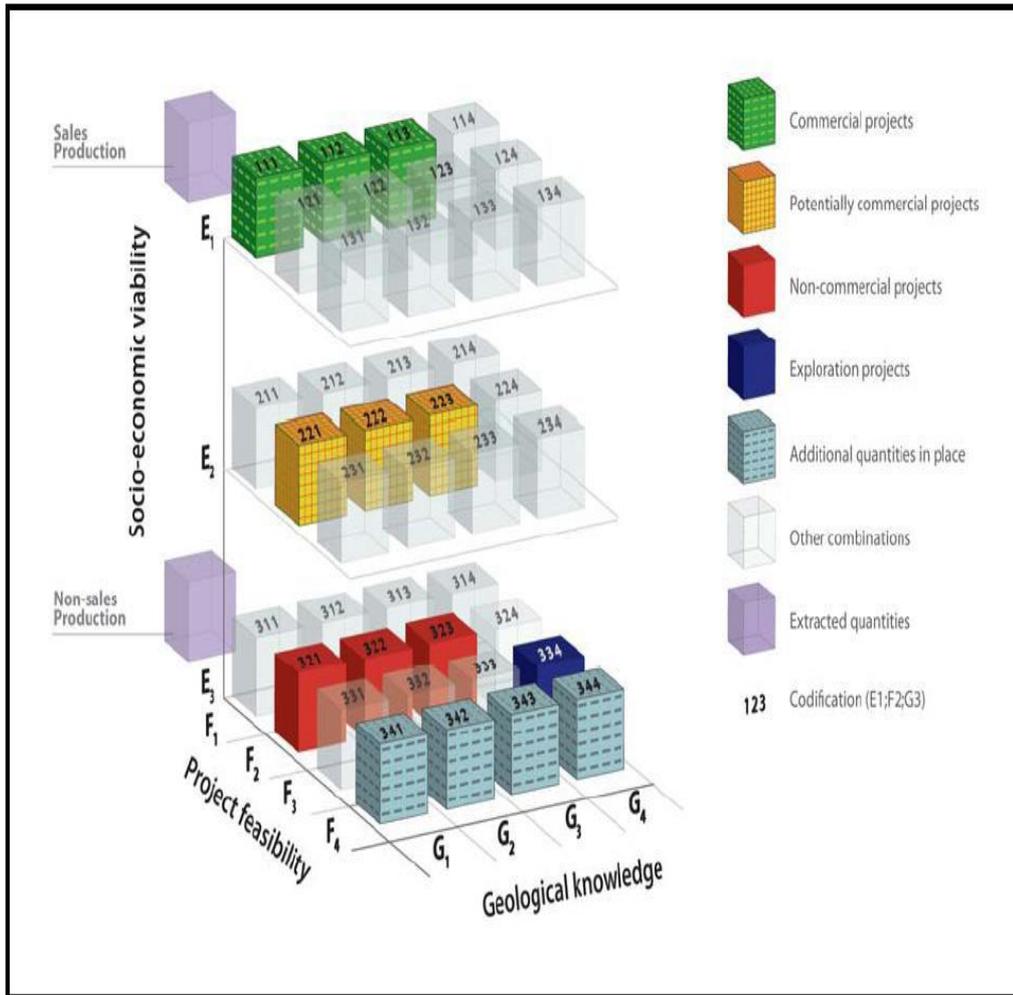
REGULATORY FRAMEWORK

Relevant Laws are;

- ▣ Law No 95/08 of January 30, 1995 on Radiation Protection.
- ▣ Decree No 2002/250 of October 31, 2002 creating the National Radiation Protection Agency (NRPA).
- ▣ The new Mining code of April 16, 2001 by the Ministry of Mines promotes and secures private and International investment by lightening the procedure of acquisition of licenses, by limiting the shareholding of the state at 10%, by exonerating custom duties of technical equipments, and by direct transformation of exploration licenses into exploitation licenses.



APPLICATION OF UNFC-2009 TO URANIUM RESOURCES IN CAMEROON



THE PLACE OF UNFC-2009 IN CAMEROON MINING SECTOR.

Presently in Cameroon, there exist no local official and standard classification system for fossil energy and mineral reserves and resources. Therefore, the application of UNFC-2009 in Cameroon mining sector is an unavoidable tool for development.



APPLICATION OF UNFC-2009 TO URANIUM RESOURCES IN CAMEROON

TABULA OUTLINE OF URANIUM DEPOSITS IN CAMEROON

N°	CONCESSION NAME	STATUS
1	Poli	<p>Project is still at exploration phase.</p> <p>-Economic viability of extraction cannot be determined due to insufficient information. Evaluation is at very early stage.</p> <p>-Feasibility of extraction cannot be determined due to limited technical data.</p> <p>-Estimated quantities associated with a potential deposit based primarily on indirect evidence.</p>
2	Salaki	
3	Voko	
4	Lolodorf	
5	Gouna	Radiometric data collected in the main targets indicate very low uranium potential that are not very motivating for a uranium exploration project. However, this concession is exceptionally promising for a silver-lithium exploration project
6	Teubang	Most of the drilled sites are not very motivating for a Uranium exploration project. However, some other mineral occurrences (zirconium, lanthanum and cerium) in radiometric elevated zones may motivate alternative exploration plans.



APPLICATION OF UNFC-2009 TO URANIUM RESOURCES IN CAMEROON

Classification using UNFC-2009 to Uranium from basic knowledge available

N°	DEPOSIT	OPERATOR	RESOURCES (TU)	AVERAGE GRADE (%U/ppm)	UNFC CLASS	E	F	G
1	Poli	Mega Uranium Corporation	13,125	more than. 0.10 % U (28.9 million pounds U308)	Potentially Commercial Project	2	2	3
2	Salaki		-	324-8293 ppm.	Exploration Project	3	3	4
3	Gouna		-	-	Exploration Project	3	3	4
4	Voko		-	-	Exploration Project	3	3	4
5	Lolodorf		11 000	-	Potentially Commercial Project	2	2	3
6	Teubang		-	Varies between 200 to 1900ppm.	Exploration Project	3	3	4



BENEFITS OF UNFC-2009 TO CAMEROON

- It is a global communication tool which facilitates international comparison thereby attracting foreign investors.
- It facilitates reassessment of energy and mineral resources according to the criteria used in market economies.
- It is developed to meet the needs of all classes of operators in the mining sector.
- It Promotes effective management of limited resources by accurately assessing its supply base.
- It Enhances transparency through a clear mastery and classification of mineral resources at all categories.



CHALLENGES

- ▣ **Level of Exploration:** The main company involved in exploration has stopped exploration works due to lack of adequate finance.
- ▣ **Human Resource:** The Government does not have enough qualified personnel to carry out exploration works and other related activities. The classification above is lacking because of lack of appropriate information and knowledge on U.
- ▣ **Material and Equipment:** There is also lack of adequate material and equipment for exploration works. No local official and standard Classification system.



PROSPECTS

- ▣ The mining sector is expected to contribute 25% to the country's Gross Domestic Product (GDP) by 2020. Currently, its contribution is at 7% only. Therefore, more efforts are being made in every area of mining in order to boost up activities.
- ▣ The Government recently has begun carrying Airborne Geophysical Surveys to determine potential indices of uranium and other minerals.
- ▣ More information on minerals will permit us carry out an appropriate UNFC-2009 classification for uranium and eventually, other minerals. It will also permit us update Cameroon's information in the **RED BOOK**.



NEEDS

- ▣ -Field and Laboratory Equipment
- ▣ -Training and capacity building
- ▣ -Funding of local projects.
- ▣ -Expert visits.



Conclusion

- ▣ UNFC-2009 as a reporting tool in the mining sector of Cameroon will facilitate the mastery of the state of mineral reserves and resources thereby creating an attraction for foreign investors.
- ▣ Cameroon's adherence to international bodies such as the IAEA and UNECE, increases her chances to grow in reporting activities in the mining sector.



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Attention