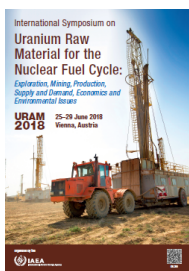


International Symposium on Uranium Raw Material for the Nuclear Fuel Cycle: Exploration, Mining, Production, Supply and Demand, Economics and Environmental Issues (URAM-2018)



Contribution ID: 165

Type: ORAL

REGIONAL FRAMEWORK FOR THE CLASSIFICATION OF URANIUM DEPOSITS: AFRICA'S APPROACH TO ADOPTING UNFC-2009 THROUGH IMPLEMENTATION OF AFRICAN MINING VISION

Thursday, 28 June 2018 15:00 (20 minutes)

INTRODUCTION:

Minerals are found where they occur! The existence of minerals does not necessarily look at nearness to the supporting infrastructure such as energy, roads, railways, water, human capital and many other requirements. Existence of particular minerals in an area is wholly dependent on the geology of the area. It requires Host Countries of any mineral(s) to know where exactly these minerals are found, their quantities and qualities which can determine the mineral's possibility to be exploited and even the expected environmental considerations to be taken on board.

To know the existence and quantities of a particular mineral, it takes intensive work of geological experts and associated technology. It is widely known that, knowing the occurrence of a mineral alone is not adequate for any potential investor to come up with an investment decision. There is always a great need for comprehensive studies on the mineral deposit to determine quantities and qualities. It is until the investor is fully convinced on these two key parameters that he can classify them as reserves or resources.

Due to inadequate geological information in Africa, companies across the globe make decisions to invest in the African region on a high risk base. They invest with an expectation that they will conduct exploration activities up to the point where there will be huge certainty of occurrence of the ore deposit. Despite this, as a legal requirement in most governing Laws in Africa, companies are required to classify their mineral deposits and report them so that Host States can make sound decisions on the investment arrangements. In some cases, companies prepare the National Preparedness Matrix to check the stage at which they are and their readiness to exploit such a resource. Uranium deposits have often times been treated the same.

For many years, investors in Africa have been using different reporting and classification frameworks and this further showed the challenges of Host State Government to understand such technical reports and report the same to all other stakeholders. In most sectors in Africa, there has been chaos in the way the sectoral reports on Uranium has been reported to institutions requiring such information. This has resulted into the receiving party to have inconsistent information from a single deposit or from different deposit which were classified and reported using different reporting frameworks.

In Africa, the investors have been using frameworks such as the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC CODE), the South African Code For the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (SAMREC), Committee For Mineral Reserves, International Reporting Standards (CRIRSCO), Canadian Instrument 43- 101 and many others. Unfortunately, these have been considered as frameworks used for purely commercial purposes. In this regard, African member states considered this challenge and through the African Mining Vision which was adopted by African Heads of States in 2009 that a regional reporting and classification instruments should be developed.

Considering the urgent need for such a regional reporting framework and the associated long period which can be taken to develop a 'home-grown' framework, a decision was made through African Minerals Development Centre (AMCD) which is an organ of the African Union to consider adopting the United Nation Framework for Classification of Mineral Resources (UNFC 2009).

The AMDC noted that member states are fully aware of the existence of the UNFC 2009 and that some African experts took part in developing it. The continent's participation was supported by the International Atomic Energy Agency (IAEA) with an intention of using the framework for reporting the Uranium deposits in Africa. Through AMDC, African geologists decided to extrapolate its usage from purely Uranium deposits to all other minerals where necessary.

UNFC 2009 was crafted in such a way that it supports the African Mining Vision and hence, it was easy for Africa to consider its immediate adoption. Even though this is the case, Africa organized several regional meetings on Harmonization, Adaptation, Implementation and Development of the framework in line with the AMV. In this case, it was proposed that the UNFC 2009 will be the benchmark which will be supported by the African Minerals Resources Classification and Management System (UNFC- AMREC) and that this will be used in reporting Uranium and other mineral deposits at national level in Africa.

It is following this development that this paper will tackle the genesis of AMREC and Pan African Reserve and Resources (PARC) Codes for reporting of these minerals. Emphasis will be put on how the AMREC- PARC Code will be used to report Uranium deposits.

UNDERSTANDING UNFC 2009- AMREC AND PARC AND THEIR RELATIONSHIPS

The United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources 2009 (UNFC-2009) is a universally acceptable and internationally applicable scheme for the classification and reporting of fossil energy and mineral reserves and resources. It is currently the only classification in the world to do so. The UNFC-2009 reflects conditions in the economic and social domain, including markets and government framework conditions, technological and industrial maturity and the ever present uncertainties. It further provides a single framework on which to build international energy and mineral studies, analyze government resource management policies, plan industrial processes and allocate capital efficiently. UNFC 2009 has mainly three classes which are abbreviated as E,F,G and they mean:

E: Economic and Social Viability

F: Feasibility and field project status, and:

G: Geological knowledge.

UNFC 2009 Classes classifies each and every mineral deposit using these three classes which have categories and subcategories.

On the other hand, as a way of simplifying Mineral Reporting tasks and making sure that UNFC 2009 is adopted with an African consideration as supported by several continental strategies for development, a plan to set up an African Minerals Resource Classification (AMREC) was born. Spearheaded by the African Minerals Development Centre (AMDC), AMREC is the continental framework that will harmonize, adapt, and develop the UNFC 2009 according to the principles of the Africa Mining Vision (AMV). Further do the development of AMREC, a proposal to develop a Pan African Resources Code (PARC), which will be a code for transparent financial reporting was discussed and agreed.

Both AMREC and PARC were in line with the UNFC 2009 provisions which greatly support the AMV 2009.

DISCUSSION AND CONCLUSION

Mineral Resource reporting is very crucial and vital to any resource rich country. Most countries in Africa lack capacity in areas such as interpretation and usage of the available reporting frameworks which are normally used for commercial purposes. As is the case, the submitted reports are used for commercial purposes and national (public) purposes. On the part of public usage, the reports can enable the State make exploration and exploitation plans. The reports can also be used by some other international institutions to raise awareness of a particular country's resource and investment potential. Such institutions includes the United States Geological Surveys (USGS) which produces mineral potential, exploration results and production records of almost every member states. Failure to report correctly leads to misinforming the potential investors or any other interested party (stakeholders).

The African Mining Vision (AMV) supports the idea of public resource reporting and the linkages which exists to frameworks such as UNFC 2009 and AMREC-PARC, addresses this need. Currently, most African States are using UNFC 2009- AMREC to report Uranium reserves and resources for easy development of a Country Preparedness Matrix and hence plan for a strategic exploitation of the Yellow Cake.

After considering the African challenges at hand, and the need to have a user friendly resource reporting framework, this paper highly commends in adoption of the three frameworks thus UNFC 2009- AMREC/PARC.

1- (United Nations. Economic Commission for Europe, 2014)
(UNECA), 2nd October, 2017)

2- (United Nations. Economic Commission for Europe, 2014)
(UNECA), 2nd October, 2017)

Bibliography

(UNECA), U. N. (2nd October, 2017). Workshop on African Mineral Resource Classification . Ethiopia, Addis Ababa: UNECA.

United Nations. Economic Commission for Europe. (2014). United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources 2009 Incorporating Specifications for Its Application. US: University of Minnesotae.

Country or International Organization

Malawi

Primary author: Mr CHIWAMBO, Cassius (Chief Mining Engineer)

Presenter: Mr CHIWAMBO, Cassius (Chief Mining Engineer)

Session Classification: Economic Evaluation of Uranium Projects

Track Classification: Track 5. Economic evaluations of uranium projects