OVERVIEW OF UNFC-AMREC SYSTEM

INCORPORATING PARC

BY

TUNDE M. ARISEKOLA

NIGERIAN GEOLOGICAL SURVEY AGENCY, ABUJA NIGERIA
VICE CHAIR EGRC
- **United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources**

- **Global, generic, principles-based system**
  - Applicable to solid minerals and fluids (both energetic and non-energetic minerals and deep sea minerals)

- **Based on three criteria**
  - Economic and social viability
    - Field project status and feasibility
  - Geological knowledge

- **Significant progress to broaden application to renewable energy and injection projects for geological storage (of CO$_2$ & natural gas)**

- **Also applicable to groundwater & secondary/anthropogenic resources**

- **Developed by Expert Group on Resource Classification at UN Economic Commission for Europe, Geneva – with a global mandate**
CRITERIA AND CATEGORIES

Numerical coding system based on the three criteria, sub-divided by categories:

- **Economic and social viability**
  - E1
  - E2
  - E3

- **Field project status and feasibility**
  - F1
  - F2
  - F3
  - F4

- **Geological knowledge**
  - G1
  - G2
  - G3
  - G4
WHY THREE CRITERIA?

Proved reserves must be …

- Economic to extract (commercially feasible)
- Geologically well defined (with high confidence)
- Technically feasible to extract
UNFC-AMREC — WHAT IS IT?

The UNFC-AMREC is a comprehensive system for sustainable management of all mineral and energy resources in Africa.
Africa is a major destination for oil, gas and minerals. Yet, no country in Africa (except South Africa) has a comprehensive mineral and energy management system. No country in Africa has a code for reporting mineral and energy resources to stock exchanges and financial institutions.
LACK OF A RESOURCE MANAGEMENT SYSTEM LEADS TO . . .

- Poor integration of policies, law and regulations across minerals and energy sectors
- Challenges in the strategic planning of the development of oil, gas and mineral resources
- Insufficient and inefficient capital allocation in the mineral and petroleum value chain
- Inadequate plans for developing infrastructure in resource regions
- Missed opportunities in up-, side- and down-stream value addition
- Slow introduction of innovative technologies
- Lack of clear appreciation of social and environmental issues
- Challenges in contract negotiation capacity
- Issues in full recovery of resource rents and revenues
- Reduced investor confidence
- Non-participation in African share markets and other investment instruments
- Absence of a clear capacity building strategy and its implementation
A WORLD LEADER

- United Nations Framework Classification – African Mineral and Energy Resources Management System (UNFC-AMREC) aligned to African Mining Vision and Agenda 2063

- A unique continental system for the management of the whole mineral and energy value chain

- First-time real application of a system anywhere in the world that includes oil, gas, minerals and renewable energy

- First-time implementation of a code for transparent financial reporting, Pan-African Reporting Code (PARC)
**HARMONIZES FIVE CRITICAL AREAS**

Total resource industry life-cycle

- **System-wide**
  - Policy framework aligned to SDGs and AMV

- **Government / Industry**
  - Resource management system

- **Economic**
  - Capital allocation

- **Business process**
  - New models

- **Operational**
  - Capability

Tailored to African situation

A single management framework to integrate policy, implementation, financial capital, business process and human capability.
AIMS FOR HOLISTIC VALUE CHAIN AND INDUSTRY LIFECYCLE MANAGEMENT

Removes fragmentation of industry life-cycle and integrates it to the value chain for structural transformation and global competitiveness in Africa.
Defines a clear pathway for projects from exploration all the way through production to achieve effectiveness in implementation.
PARC — THE FIRST EVER PUBLIC REPORTING CODE FOR ENTIRE AFRICA

A game-changing unified stock exchange and financial reporting code to spur growth in mining, petroleum and renewable energy investments.
Fully integrated within the overarching Africa Mining Vision to provide national mineral and energy management framework as well as an investor oriented public reporting code.
AFRICA FIRST APPROACH

- **UNFC-AMREC** is a system tailored for Africa to support good governance:
  - Timely and proactive decision making in resource development
  - Integrated resource management policies and strategies
  - Better business process management for companies
  - Effective capital allocation by prioritizing the development pipeline
  - Promoting stable growth and resilience

- Integrates mineral, petroleum and renewable energy into a single framework, that will bring in dynamism in the sector
- Introduces a new paradigm of comprehensive recovery and the objective towards ‘zero waste’, through innovative approaches
- Address social and environmental issues from the earliest stages of resource development
- Increase the availability of finances through an internationally compatible public reporting code - PARC
AFRICAN LEADERSHIP

Aims to build a globally recognized and respected professional workforce through a force multiplier effect that links business process, gender justice and capability.
THE START OF A NEW DAWN

Skeleton of UNFC-AMREC system

Skeleton of PARC code

Capacity building and training strategy and roadmap

Committed expert working group

Partnership with professional bodies – Geological Society of Africa and others

UNFC-AMREC Working Group (UNAWG) has been set up and domiciled with AMDC as the Secretariat

Development of an African mineral resource classification system now underway

The African-based framework, which is based on the UNFC and AMV, will enhance regional cooperation in sustainable development by providing a classification framework for management all energy and mineral resources on land, continental shelf, and seabed. A pioneering initiative to set up an African Mineral Resource Classification (AMREC) system based on the United Nations Frameworks Classification for Fossil Energy and Mineral Reserves and Resources (UNFC) is now underway. Spearheaded by the African Minerals Development Centre (AMDC), AMREC is the continental framework that will harmonize, adapt, and develop the UNFC according to the principles of the Africa Mining Vision (AMV).

The African-based framework, which is based on the UNFC and AMV, will enhance regional cooperation in sustainable development by providing a classification framework for management all energy and mineral resources on land, continental shelf and seabed. With energy and mineral sectors facing a myriad of challenges related to economics, environmental and social aspects, including the commitments of the Paris Accord and aspirations of Sustainable Development Goals (SDGs), the AMREC, like UNFC, will be an efficient system that will serve as an important tool; especially for stakeholders with sustainability as its core concept and foundation.
# Geological and Mineral Information System (GMIS) Strategy

**African Mineral Development Centre (AMDC)**

**Geological and Mineral Information System (GMIS) Strategy Plan of Activities**

## Purpose

Strengthen the African Union (AU) Members States capacity to produce, manage and disseminate geological and mineral information

1. Coordinate and provide strategic operational support for AU Members States to improve geological and geospatial information and its use in mining and broad development processes in Africa

2. Set direction, create alignment, build commitment, promote collaboration; establish trust and mobilize supporters from different GMIS initiatives in Africa

## Objectives

### Areas of Activities

1. Establishment of legal and regulatory framework for African GMIS activities
   - Elaboration of GMIS Principles
   - Preparation of background studies, draft recommendations and guidelines:
     1. Financing GSOs from mineral revenue
     2. GMIS for contract negotiation, taxation and tenders
     3. Transfer of corporate geodata to national GSOs
     4. Mechanisms data sharing and distribution

2. Development of GMIS at national level (domestication of the CMV)
   - Elaboration of background studies, recommendations and guidelines
   - Support capacity building of the national GSOs:
     1. Lesotho
     2. Guinea
     3. Kenya
     4. Malawi
     5. Tanzania
     6. Sierra Leone
     7. Ghana
     Others
   - Support and strengthening of GMIS at African Universities

3. GMIS at regional and continental levels (domestication of the AMVC)
   - Support the capacity building of activities from the AMGC
   - Support and strengthening of GMIS facilities at the RECs
   - Support and strengthening of the OAGS
   - Standardization, harmonization of nomenclatures, resource classification
   - Development of PPP and South-South and triangular cooperation

4. Development of GMIS in areas of special interest
   - Blue Economy (continental shelf and adjacent oceanic areas):
     1. Guidebook prospecting
     2. GIS African continental shelf
     3. Centers of excellence
     4. Exploration Intl. Seabed
   - Artisanal Mining:
     1. GMIS best practice
   - Minerals for development (industrial minerals):
     1. GMIS best practice
     2. Identification of exploration areas

## Expected Results

Improved geological and geospatial information and its use in mining and broad development processes in Africa
“Far from being hostage to an incurable resource curse, this generation of political leaders has an opportunity to harness resource wealth for a transformation in human development.”

Kofi Annan, Africa Progress Report, 2013
THANK YOU FOR YOUR ATTENTION