

FEDERAL REPUBLIC OF NIGERIA
MINISTRY OF MINES AND STEEL DEVELOPMENT

MINERAL SECTOR SUPPORT FOR ECONOMIC DIVERSIFICATION
PROJECT (MinDiver)

Terms of Reference

**Engagement of a Technical Expert Consultant to design and
implement a safer and cleaner mining program, efficient technologies
& practices and advise on reforms within Ministry of Mines and Steel
Development to achieve sustainability in the Mining and Steel Sector**

1.0 INTRODUCTION

The Federal Government of Nigeria has obtained a credit from the International Development Association (IDA) to fund the Mineral Sector Support for Economic Diversification (MinDiver) Project. The project has the following development objectives:

- a. To improve the attractiveness of the Nigerian Mining sector, as a driver for economic diversification, for long-term private sector investment in the exploration and production of minerals.
- b. To create a globally competitive sector capable of contributing to wealth creation, providing jobs and advancing our social and human security.

2.0 BACKGROUND

The Federal Government of Nigeria has embarked on an economic diversification campaign with the aim of leveraging on the Nation's vast natural resources to diversify the economy from the oil and gas sector to achieve economic emancipation.

The sector's growth and contributions to GDP have remained less than ideal, accounting for only about 0.33% in 2015. To address this, the Ministry of Mines and Steel Development (MMSD) recently developed a roadmap for mining growth and development with objectives to deepen sector reforms, attract new investors and collaborate with a wide network of partners and stakeholders to rejuvenate the sector and build a prosperous economy propelled by inflows from the solid

minerals sector. The overall objective of the MinDiver Project is to link with the Roadmap and enhance the mining sector's contribution to the economy by strengthening key government institutions, improving information infrastructure and knowledge, and fostering domestic investment in the sector. The Project consists of the following parts:

Part A. Establishing a Strong Foundation for Mining Sector Development

1. Carrying out of a program of activities designed to strengthen the MMSD's capacity for governance and administration of the mining sector;
2. Carrying out of a program of activities designed to strengthen the Nigerian Geological Survey Agency as well as geological knowledge and information infrastructure for the mining sector,
3. Implementing a program of activities designed to strengthen the Recipient's capacity for management of environmental, health and social impacts in the sector

Part B. Facilitating Downstream Sector Development and Enhancing Competitiveness

1. Strengthening administration of the artisanal and small scale mining sub-sector,
2. Implementing a program of activities designed to leverage the mineral sector for regional development
3. Implementing a program of activities designed to enhance value addition to mineral products (including upstream development of industrial minerals and dimension stones domain) in the mining sector,
4. Implementing a program of activities designed to advance proof-of-concept investments and to attract private sector investments

Part C. Project Management and Coordination

1. Strengthening the capacity of the MMSD for implementation, supervision and management of the Project through the provision of goods, consulting services, non-consulting services, operating costs and training for the purpose.
2. Supporting quality control of Project activities and outputs as well as monitoring and evaluation of Project outputs and results.

The key results of the project will include:

- i. Increased availability of precompetitive geo-science data enhancing mineral transactions;
- ii. Institutional information systems integrated with multi-sector planning tools;
- iii. Incentives created for Artisanal and Small-Scale Mining (ASM) formalization;
- iv. Improved environmental and social compliance by mining industry operators

3.0 OBJECTIVES

The ASM sector constitute over 90% of the mining activities in Nigeria. Despite the efforts of MMSD to organize and register them for better and safer operations, the ASM activities still remain very worrisome.

It is against this background that the MMSD is engaging the services of a Consulting Firm to support the ASM and Mines Environmental Compliance (MEC) Departments of MMSD to entrench a robust and sustainable ASM sector that is profitable in a healthy, safe, and environmentally acceptable manner. Specifically the objectives of this engagement are to:

- i. Design and implement a safer and cleaner mining program, to influence Environmentally, Healthy and Safer (EHS) conscious extraction, production and processing methods in line with best practices for responsible mineral supply chains;
- ii. Introduce better and more efficient technologies and practices for safer extraction, production and processing which are easy to use and maintain, whilst allowing increased productivity;
- iii. Support MMSD in their reforms to achieve sustainable improvement in policies and practices governing environmental compliance throughout the mining life cycle;
- iv. Build on the successes recorded in containing the outbreaks of lead poisoning in Zamfara and Niger States achieved through active collaboration of all tiers of government and development partners, in particular, that of Medicins San Frontieres (Doctors Without Borders) in

establishing effective and sustainable prevention measures in Zamfara and Niger States.

4.0 SCOPE OF WORK

The main role of this Consultancy is to provide technical advisory support to the ASM and MEC Departments of the MMSD in realizing the objectives of the project. The scope of the consultant's duties, responsibilities and activities include the following:

- i. Evaluate and analyze gaps in the present state of mining and mineral processing methods being employed by ASM operators responsible for low mineral production output and which undermine safety, health and environmental protection;
- ii. Provide technical assistance to miners, Federal and State Government MDA's in the identification, monitoring and mitigation of environmental and occupational exposure to hazardous materials in order to protect public health and the environment;
- iii. Carry out an extensive Environmental, Health and Safety (EHS) study/assessment of existing ASM mining and mineral processing methods adopted across the country;
- iv. Make recommendations for appropriate changes to existing mining, processing techniques and methods and mineral chain activities to achieve the desired EHS improvement;
- v. Study the efforts of MSF in the establishment of a Safer Mining Pilot Project Platform in Shikira, Niger State, with the possibility of reciprocating this effort in all gold producing areas of Nigeria.
- vi. Assess and make recommendations for the sustainability of the MSF Case Study Sites in Nigeria;
- vii. Design models for small-scale mines, adopted for the extraction of a range of mineral commodities (e.g. gold, kaolin, gemstones, dimension stone, granite) commonly mined by artisanal workers;
- viii. Design models for modular mineral processing plants and simple mining tools for ASM operators for the mining and processing of selected industrial minerals;

- ix. Provide recommendations detailing the size, location, commodity and equipment specifications for the establishment of mineral support centres across the country;
- x. Identify locations for the trial and development of simple to operate, easy to maintain, more efficient small-scale mining operations, that will meet the requirements for improved EHS performance;
- xi. Facilitate the introduction of safer, cost effective and more productive mineral processing technologies (e.g. iGoli, borax and gravity methods) that mitigate against the use of toxic or hazardous chemicals;
- xii. Facilitate and promote safer mining practices and technologies shown to be effective for safer and cleaner mineral extraction, production and processing;
- xiii. Develop a framework reporting mechanism for providing an effective and rapid response to environmental, health and safety incidents dealing in particular with reporting, management, control and mitigation measures for the ASM sites and the associated effected community;
- xiv. Advise on effective and active collaboration measures to be taken by and across relevant government ministries and agencies and development partners (e.g. MMSD, Federal Ministry of Environment, Federal Ministry of Health, associated departments and agencies, State Governance and Local Governance) to achieve best practice;
- xv. Facilitate the training of selected miners and technical staff of ASM Department on the selected mineral processing and mining technologies through, but not limited to, study tour/s abroad where practical demonstration can be experienced.
- xvi. Organize enlightenment stakeholders' training/workshops in six geo-political zones where ASM activities is prevalent.
- xvii. Produce a manual to guide operators and government officials on Health and Safety procedures in the mining site
- xviii. Develop Health and Safety inspection procedure and template to guide mines inspectors on supervision in the mining site.
- xix. Design a communication strategy on safer mining in Nigeria.

5.0 CONSULTANT'S QUALIFICATON:

The Consultant's team shall include all the necessary expertise required to complete the work as specified within the terms of reference for the assignment.

The experiences required of the firm are as detailed below:

- a. Knowledge of the mining sector and conversant with ASM practices and fully conversant with mining, mineral processing, environmental, health and safety practices in the mining sector;
- b. Skills and experience in assessing artisanal, small-scale mineral operation activities, environmental and social management, health & safety hazard identification and prevention in the mineral sector and in the sub-saharan Africa. Having such experience in Nigeria is an added advantage; Fluency in spoken and written English is mandatory

i). **Project Manager (1No)** in the Consulting firm should have relevant university degree in Mining/Mineral processing Engineering, or Geology and at least 15 years of relevant experience. He / she must have a proven track record in managing similar projects especially in countries at a similar state of development, particularly in Africa. Knowledge of the mining value chain and Skills and experience in assessing artisanal, small-scale mineral operation activities, This senior position will involve responsibility for the day-to-day management of the project and for all negotiations and joint planning with the officials of the MMSD. Good interpersonal skills will be essential, including the ability to work with the staff of MMSD and other stakeholders involved in steering the reform program.

The key staff (4NOs) under the Project Manager they should have relevant university degrees and relevant experience in the respective areas of discipline that they lead.

ii). Mining Engineer (1 No), He/ She must possess a minimum of a university Degree in Mining Engineering or related discipline with professional qualification and at least ten (10) years' practical experience in the mining sector particularly in the ASM operations and undertaking monitoring and audit activities. Must have demonstrable Knowledge of the mining and minerals sector policy and regulatory compliance regarding HSE issues in the mining sector.

iii). Mineral Process Engineer (1No), He/ She must possess a minimum of a university Degree in Mineral Process Engineering or related discipline with professional qualification and at least ten (10) years' practical experience in the mining sector value chain particularly in the ASM operations and undertaking

processing activities. Must have demonstrable Knowledge of the mining and minerals sector policy and regulatory compliance regarding HSE issues in the mining sector.

iv). Environmental Expert (1 No); He/ She must possess a minimum of a University Degree in Environmental Resource Management, Environmental Sciences/Economics, Environmental Engineering or related discipline with professional qualification and at least ten (10) years' experience in environmental assessments preferably related to Mineral Development projects, a significant portion of which has been in Sub-Saharan Africa. He/She should possess demonstrated expertise in most aspects of environmental and/or social impact assessments including SESAs, ESMFs, ESIA's and ESMPs together with experience in institutional issues. She/he should have demonstrated skills working effectively with public sector clients and delivering products in a timely and professional manner.

v). Occupational Health and Safety (1 No). He/ She must possess a minimum of a University Degree in occupational health, safety and or related scientific or technical field such as engineering or geology and at least ten (10) years' experience. Experience as an occupation health and safety professional in the mining sector will be an added advantage.

vi). Communications strategist (1NO). With at least a degree in mass communications, public policy, development studies or other relevant discipline and at least ten (10) years' experience. The expert should have professional experience in designing and delivering communications and media relations strategies particularly in rural mining communities will be an added advantage. Good interpersonal skills with strong verbal and written communication as well as above-average listening skills and ability to speak and interface with people of diverse background.

6.0 REMUNERATION AND PAYMENT TERMS

Remuneration of the consultant is attractive and commensurate with those offered by international bodies for similar assignments. The assignment will be based in Abuja. However, the consultant will also be reimbursed for operational expenses such as travel, accommodation, and telephone incurred while carrying out this

assignment and in line with World Bank guidelines and procedures. Before reimbursement can be made, the consultant will need to submit a statement of expenses supported by valid documentation.

The successful consultant would be paid a lump sum amount, on monthly basis, in accordance with an agreed schedule of deliverables, on the agreed rate of professional fee and reimbursable expenses, subject to satisfactory performance timely receipt and approval of project reports.

7.0 DURATION OF SERVICE

It is expected that the service of the Consultant is required for a period of eighteen (18) months subject to adequate consultation periods with stakeholders.

8.0 DELIVERABLES

The consultant will produce the following reports:

- a. **An Inception Report** to outline the work plan of the consultant, define its tasks and the planned implementation periods and schedules, identify target submission dates on each task. Particular attention will be given towards the planned coordination within other teams and preparation of a detailed schedule. Stakeholder mapping will be included in the Inception Report. The inception report will be submitted within one month of the commencement of the assignment and once approved and issued in its final form, will serve as the consultancy's baseline for the management and monitoring of the tasks;
- b. **Monthly Progress Reports** on engagements and findings with stakeholders in the industry; The Consultant shall prepare consolidated Monthly Progress Reports covering progress towards achieving the objectives in this ToR as well as identified areas of weaknesses and strategies for improvement. The reports shall provide a brief but comprehensive end-of-month progress assessment and details of impediment to the works and proposals for overcoming them. These reports shall be submitted within the first week of the succeeding month. The report will be assessed and appraised by the Director ASM, Director MEC and the Project Coordinator.
- c. **Quarterly Progress Reports** will consolidate the information contained in the monthly reports together with a summary of consultant's activities

- and conclusions on all pertinent issues concerning the assignment. In addition the Quarterly Progress Reports will outline recommendations, for amendment or solutions to issues and matters raised or found in the course of the study and any other information considered necessary in respect of service delivery. Reports of the findings of workshops held or study tour/s undertaken will be provided together with comments and observations of the participants. Quarterly Progress Reports shall be submitted at the end of the first week of the succeeding quarter;
- d. **Specific Reports**, to meet the reporting requirements for tasks set out in the numbered subject areas of the scope of works. Such advisory reports, results of surveys/fieldwork, analyses and recommendations bound in three (3) copies and an electronic copy in CD, to be prepared following duly considered review and assessment and in line with the schedule set out in the Inception Report
 - e. **A Draft Final Report**, including Project Action Plan and recommendations for implementation within the first week of the penultimate month of the assignment.
 - f. **Final Report** bound in three (3) copies and an electronic copy within the last week of the assignment.

All Reports Shall Be in English and Presented in Hard and Soft Copies for review and approval by the Project Co-coordinator

All information pertaining to this programme as well as outputs produced under this contract shall remain the property of the MMSD who shall have exclusive rights over their use. Except for purposes of this assignment, the products shall not be disclosed to the public nor used in any format without written permission of MMSD in line with the national and International Copyright Laws applicable.

THE ADVISOR WILL SIGN A CONFIDENTIALITY and NON-DISCLOSURE AGREEMENT WITH THE PIU (Project Coordinator overseen by the World Bank). Noncompliance will subject to legal penalties not inferior to the Full Cost of the Contract.

NO FINAL PAYMENT WILL BE MADE UNTIL QA/QC HAS BEEN PASSED.

9.0 SELECTION METHOD

A Consultant will be selected in accordance with the Consultant's Qualifications Based Selection (CQ) method set out in the WB Procurement Regulations