

# Project Development Facility Investment Manual

Unlocking Financing for Nigerian Mining Projects









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# AFC-SMDF Project Development Facility

## Introduction to the AFC-SMDF Partnership

The Africa Finance Corporation (the "AFC") and the Solid Minerals Development Fund of Nigeria (the "SMDF" or the "Fund") have entered into a partnership aimed at co-funding and co-developing mining projects in Nigeria, with the long-term aim of catalyzing the growth and development of the mining sector and contribute to overall economic development of Nigeria. An initiative of this partnership is the mining project development facility, which has been launched to fast track the development of mining projects in Nigeria.

This document outlines the nature of the project development facility and provides a guide to potential Project Sponsors and interested stakeholders in the sector, on the investment approach being taken by the AFC and the SMDF, the objectives of this facility and the high-level

requirements for potential projects to be undertaken.

Any projects to be considered under the project development facility will remain subject to the internal reviews and approvals of both the AFC and the SMDF. This manual serves as a guide to the adequate level of project preparation and investment readiness required by both institutions for potential investee projects and developments to be undertaken.

### Objectives of the Project Development Facility

Research indicates that the bulk of mining projects in Nigeria remain in the exploration stage of development, with very few making it to full feasibility, construction and operations. Despite the immense resource potential of Nigeria, this lack of progression is mainly due to several

factors, such as a lack of capital to fund exploration and feasibility works and technical expertise required to deliver large commercial projects.

The approach adopted by the AFC and SMDF involves first identifying high-potential assets in development and providing these projects with the requisite funding and technical support needed to complete bankable feasibility studies and raise the necessary long-term financing for construction and subsequent operations.

It is expected that this facility and the approach outlined above will increase the pipeline of investment-ready mining projects in Nigeria, attracting capital into the sector, thus creating new economic opportunities, jobs, and much-needed industrial development.









## The Mining Development Lifecycle

To further highlight the scope of the Project Development Intervention, this section provides an overview of the mining project development lifecycle, and the development process required to attain bankability and deliver on high quality, investment-ready projects.

The traditional development process for mining projects progresses from exploration to feasibility and financing and is well established in the mining sector. In particular, the feasibility process, which progresses from concept studies to Bankable Feasibility Studies. This process serves to identify and mitigate risk appropriately, and determine the most profitable and efficient mining scenario, before a project is financed and built. Typically, and at a high-level, projects follow the steps which are illustrated in Fig.1 below:



Fig.1. – The Mining Development Lifecycle

### Exploration Phase

The developer or project owner begins by identifying the appropriate area to explore. At this stage the use of the host country's geological survey services, remote sensing technique, geochemical and geophysical analysis and previous exploration data is critical. At this stage, when the exploration program is advanced, the project owner obtains an exploration license, and conducts more advanced exploration drilling and sampling. This exploration process culminates in the production of a resource statement which should be the ultimate objective of the exploration program and helps to delineate the project's resources and reserves. It is expected that a resource statement, prepared by a Competent Person (often a company of technical mining consultants).

### Feasibility Phase

Following the completion of the exploration program and the preparation of a resource statement (preferably in line with global reporting standards such as JORC) it is imperative that the project owner seeks to establish the project's viability by conducting a feasibility study. The feasibility study is typically carried out in phases to progressively eliminate risk and identify the most efficient method of production. The feasibility studies fall into the following phases:

**Concept/Scoping Study** – At the concept phase, a “back of the envelope” estimate is prepared by the owner to ascertain the economics of the project at a high level. This estimate is often very inaccurate but serves to eliminate

<sup>1</sup> Common reporting standards for resource statements include: JORC (Australia), 43-101 (Canada); SAMREC (South Africa); SME Code (USA) and several others.



very marginal projects. The scoping study is more accurate and is prepared by a Competent Person. This is sometimes called a Preliminary Economic Assessment or PEA;

**Prefeasibility Study (PFS)** - The objective of the PFS is to select the most technically viable and financially robust operating scenario to a Definitive Feasibility Study. Previous assumptions from the exploration/scoping study phase are further refined at each subsequent stage, along with the overall accuracy level of designs and cost estimations.

**Bankable/Definitive Feasibility Study (BFS or DFS)** – The BFS serves as a study of sufficient detail, that is may be the basis for which the project will be financed, whereas the DFS provides a more accurate estimation level for the Project.

The Feasibility Studies of any mining project are the most complex and detailed studies of the mining project before an investment decision is taken. They may include engineering and construction plans for a mine but are less

detailed than actual construction drawings. The feasibility studies cover all aspects of a mining project, in particular the assessment of:

- Reserves and resources
- Technical viability of the mine and the mining schedule
- Mining and processing methods and metallurgy
- Capital and operating cost of the future mine
- Environmental and Social Impact (ESIA study)
- Supply/demand market balance for the commodities mines and price projections/assumptions
- Economic viability of the whole project (Payback, cash flow, NPV, IRR)
- Project sensitivity to various factors (metal prices, cost overruns, exchange rates, errors in resource estimation)

Feasibility studies can cost millions of dollars and take up to two (2) years or more to complete. On average their costs can be up to c.6% of the total capital cost required for the Project.



Fig.3 below shows the typical considerations within each of the above stages and the expected accuracy level:

Stage	Concept	Details	Accuracy
<b>Scoping Study (FEL1)</b>	<b>What COULD the project be?</b> identify project concepts	<ul style="list-style-type: none"> <li>• High level assessment of technical characteristics</li> <li>• Justified by Resource potential &amp; mining options</li> <li>• Identifies fatal flaws</li> <li>• Includes assumptions</li> <li>• Market potential</li> <li>• Simple cash flow</li> </ul>	30 - 50%
<b>Pre-Feasibility Study (FEL2)</b>	<b>What SHOULD the project be?</b> assess viable options for mining	<ul style="list-style-type: none"> <li>• Data collection</li> <li>• Upgrade to geology and Resources</li> <li>• Modifying Factors across multiple disciplines</li> <li>• Fewer assumptions</li> <li>• Assess multiple options for a Go-Forward Scenario</li> <li>• Permits, regulations &amp; stakeholder engagement</li> </ul>	20 - 25%
<b>'Definitive' Feasibility Study (FEL3)</b>	<b>What WILL the project be?</b> develop single option in high detail	<ul style="list-style-type: none"> <li>• Progress the Go Forward Scenario</li> <li>• Eliminate assumptions</li> <li>• Demonstrate economic viability with detailed financial model Business plan &amp; marketing document to spark investor</li> <li>• Interest Consider upfront &amp; ongoing costs, and prevailing market conditions</li> <li>• Implementation planning</li> </ul>	10 - 15%

Fig.2 – details of the feasibility development stages

### Financing, Construction and Operations

Upon completion of the bankable feasibility study the project will need to raise a mix of debt and equity (or other alternative instruments such as streaming and royalties etc.) financing for the construction of the project. Sponsors would often require the services of financial, legal and technical advisers to support the structuring, due diligence and negotiation of terms at this stage. This is a critical

success factor for successfully closing financing in a timely and efficient manner.

It is expected that the construction and operations strategy is also well defined prior to closing the long-term funding, and the contractors are selected competitively to ensure the cost-efficiency of the Project. The services of third-party advisers (technical, legal and financial) are also critical to this process.







## An Overview of the Investment Process

The facility is aimed at providing support to projects which are within the development phase, to accelerate their development and successfully attract financing for construction and operations (financial close).

### The facility aims to provide:

- a. Funding for often expensive and complex (post-PFS) feasibility work, in addition to costs for advisers to support the fundraising, negotiation of project agreements, and due diligence; and
- b. Technical support through active co-development

and participation in the governance and decision-making process.

Although the preference of this co-development program is to support project which have at a minimum a Resource Estimate (to global standards) and a PFS, the AFC and SMDF may also consider providing funding aimed at completing exploration programs, however a clear concept needs to be defined, in addition to completion of early-stage exploration works and a clear economic imperative for the mineral being considered. Details of the requirements and appraisal process are outlined further below.

## Investment Process



Fig.3 – Investment Process

1. **Origination** - Projects are submitted for consideration, through a dedicated portal following the standard appraisal checklist (see Appraisal Requirement section below), where an initial project screening will be carried out by an independent adviser for suitability.
2. **Project Evaluation and Due Diligence** - Following clearance of the initial screening, the transaction is evaluated in further detail and presented to Sub-Investment committees for approval, culminating in the negotiation and signing of an indicative term sheet for development funding.
3. **Deal Structuring and Negotiation** - Following agreement on broad terms, the financial package is structured and definitive agreement is executed. Subsequently, a Joint Development Agreement is negotiated and then signed following approval of AFC and SMDF's respective Investment Committees and Boards (as applicable).
4. **Monitoring/Joint Development** - Following approval and signing of the definitive agreement, a Steering Committee will be established to drive the development activities and ensure compliance with agreed implementation plan and milestones.
5. **Co-development** - The Steering Committee (comprised of AFC, SMDF and the Project Sponsor) will drive the development of the Project through the project lifecycle until financial close, where AFC and SMDF will lead long-term fundraising for the Project, thus providing an exit for the development stage funding, and providing financing for the construction of the Project.





## Governance Structure

The Governance for the Project is led by the Steering Committee (the SteerCo). The SteerCo, following signing of definitive Joint Development Agreement with AFC and SMDF, will provide a joint management and oversight framework allowing AFC and SMDF to drive the development of the Project and ensure compliance with terms, milestones and workplans under the Joint Development Agreement.

As part of the governance framework, key strategic decisions will be vested within the SteerCo, to ensure joint decision making with respect to risk mitigation, project management, financial discipline and legal matters. Some of the typical key decisions to be vested within the SteerCo include:

- Changes to the Project's financial requirements/budget
- Selection of strategic partners
- Appointment and replacement of third-party advisers
- Allocation and revision of development responsibilities
- Consultation on government related matters
- Third party disputes
- Development workplan management
- Project contracts
- Project (long-term) fundraising for the construction of the project







## What kind of projects are we looking for?

Projects considered under the project development facility need to fit into four broad strategic pillars: good management and governance, technical soundness, compliance with regulations and ESG standards, and alignment with priority minerals for the program. Fig.5 below provides further clarity on each of these:

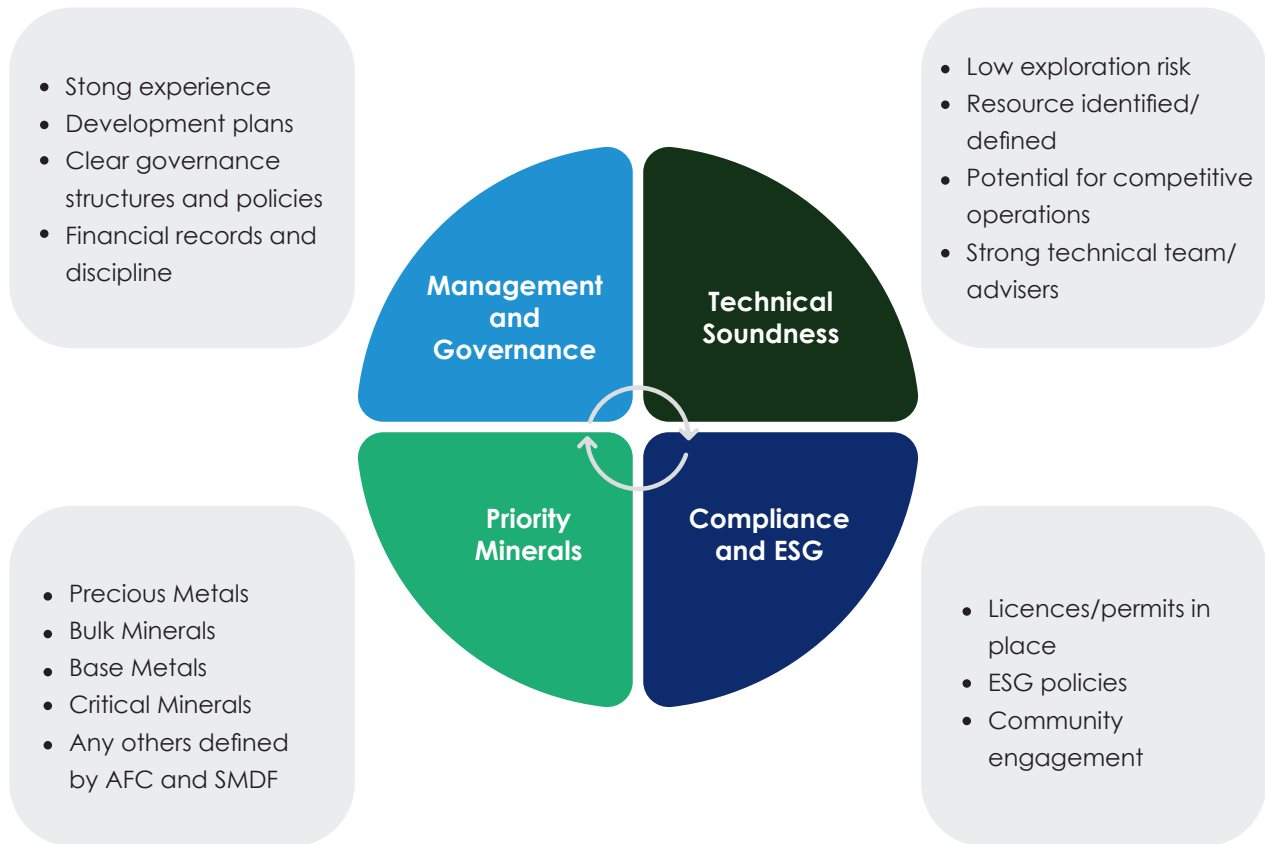


Fig.4 – Investment Process







## Risk Acceptance Criteria

This section outlines the framework under which the facility will evaluate and seek to manage project risk across various dimensions. Crucial aspects such as management and corporate governance, technical risk assessments, market risk assessments, financial discipline, logistics, and regulatory compliance, are outlined below:

### Management and Corporate Governance:

- a. The management team should have a history of successful participation in the mining industry, with credentials from either individuals (at least 10 years of relevant experience) or corporates
- b. At least one member of the company's Board of Directors and Management should have a pure mining sector background (this could be either commercial, legal, or technical).
- c. A member of the management team should have a demonstrated history of successful management of community and environmental issues in previous projects.
- d. The company should have a well-articulated business plan which demonstrates understanding of key issues and risks associated with the project. The business plan should also articulate mitigation strategies for the identified risks.

### Technical Criteria:

- a. A level of preliminary exploration studies must have been completed, and should be presented as a Scoping Study or Preliminary Economic Assessment, which is in line with the Global mining industry's standards and best practices. The project development facility will make exemptions for minerals that are critical to the energy transition.
- b. A level of preliminary assessment of the Environmental and Social issues associated with the Project.
- c. Sponsors should provide an information memorandum

which describes the development concept and project development budget.

### Market Risk Assessment:

- a. The sponsor should provide a marketing study which includes an overview of the historical price movements on the commodity, demand and supply analysis, and general market outlooks.

### Financial Discipline:

- a. The sponsor should submit detailed records and auditable historical development expenditure incurred for the Project.
- b. A detailed development budget for all outstanding studies and third-party work to attain financial close.

### Logistics:

- a. The Preliminary Economic Assessment should include information on the site and utilities that a project will require, including a site infrastructure cost estimate. These include:
  - i. Infrastructure Requirements;
  - ii. Energy and Power Supply Requirements;
  - iii. Water Supply Requirements;
  - iv. Waste Management and Tailings; etc.

### Regulatory Compliance:

- a. The sponsor should provide details around the mining Licenses and permits, including environmental compliance.
- b. A detailed plan around the community engagement and management strategies for the project should be submitted. This includes any agreements including resettlement agreements, community agreements, etc., that are in place for the Project.









## Appraisal Checklist

<b>Technical</b>	<ul style="list-style-type: none"> <li>• Reconnaissance report</li> <li>• Resource estimation</li> <li>• Scoping or feasibility studies</li> <li>• Laboratory results</li> <li>• Geological reports</li> <li>• Independent technical Report</li> <li>• Metallurgical test report</li> <li>• Plant design and description of processing method (if applicable)</li> <li>• Project development workplan</li> </ul>
<b>Financials</b>	<ul style="list-style-type: none"> <li>• Cash flow or financial model</li> <li>• Audited historical expenditure (split in to third party costs and internal costs)</li> <li>• Project budget to complete development up to DFS/financial close, validated by third party technical consultant</li> </ul>
<b>Corporate Governance</b>	<ul style="list-style-type: none"> <li>• Corporate incorporation documentation</li> <li>• Organizational and shareholding structure</li> <li>• Detailed information on ultimate beneficial owners</li> <li>• Details of all Politically Exposed Persons related to the company (shareholders, directors, and management)</li> <li>• CVs of key promoters and management personnel</li> <li>• Internal management policies</li> <li>• Detail of engagement with local communities and demonstrable buy-in (e.g., minutes of community engagement meeting, community participation agreement, etc.)</li> </ul>
<b>E&amp;S</b>	<ul style="list-style-type: none"> <li>• E&amp;S scoping</li> <li>• Environmental audit compliance</li> <li>• E&amp;S workplan</li> </ul>
<b>Logistics</b>	<ul style="list-style-type: none"> <li>• Site and utility access study</li> </ul>
<b>Regulatory Compliance</b>	<ul style="list-style-type: none"> <li>• Applicable exploration/mining licenses</li> <li>• Community Development Agreement</li> </ul>
<b>Marketing</b>	<ul style="list-style-type: none"> <li>• Independent market report</li> <li>• Project pricing model, prepared or verified by an independent consultant</li> </ul>
<b>Other</b>	<ul style="list-style-type: none"> <li>• Project investment memo, summarizing all key aspects of the project and funding requirement</li> <li>• Details of all consultants engaged across all workstreams</li> </ul>

**The requirements and investment processes outlined in this document are not exhaustive, nor do they cover the full breadth of due diligence required by the project development facility.**

<sup>2</sup> Internal costs refer to costs such as travel, salaries, accommodation, G&A etc., whereas external of third-party costs refer to costs associated with service providers to produce project deliverables (e.g., legal/technical/financial advisers, exploration work etc.).



## About AFC and SMDF



### About the Africa Finance Corporation

The AFC is an Africa-focused infrastructure and development financing institution established by treaty between sovereign states. With total assets of US\$10.1 billion and equity of US\$2.24 billion, AFC is the second highest investment grade rated multilateral financial institution in Africa with an A3/P-2 rating from Moody's Investors Service. Since 2008, AFC has disbursed more than US\$12.7 billion across various infrastructure projects across Africa, has an investment footprint across 35 African countries and has 42 member countries.

AFC adds significant value to the development of major natural resource and industrial projects in Africa, by leveraging its in-house technical expertise, vast international reach, and relationships for the raising of funds from private and development finance institutions alike.

The Corporation has several long-term debt and equity investments in the Mining sector across several African Countries in addition to investments in a range of infrastructure projects in its other core sectors: transport and logistics, oil and gas, heavy industries, and telecommunications.

AFC currently has investments of c.US\$1 billion in the natural resources sector, across Oil and Gas, and Mining, and has invested in a wide range of projects across key mining jurisdictions on the continent. Some of AFC's investments in the mining sector include gold, bauxite, manganese, copper, cobalt, and diamond projects.

### About the Solid Minerals Development Fund

The Solid Minerals Development Fund (the "SMDF" or "Fund") is a sovereign Fund established by the Government of Nigeria to drive and catalyse private sector-led investments in Nigeria's mining sector. The SMDF's objectives are to actively pursue investments that will de-risk the Nigerian mining sector, to be the partner of choice for opportunities, and to empower the economic development and diversification of the Nigerian economy through the mining sector.

The Fund's mandate is to unlock financing to promote the growth of Nigeria's mining sector and improve economic parameters such as job creation and mining sector contribution to GDP while ensuring sufficient returns to the Fund. The Fund's approach is to provide flexible financing options, build economic partnerships, deliver extensive contact networks, and complete in-house technical evaluation and support teams dedicated to advancing projects. The SMDF invests mainly across three funds: SMDF Growth, SMDF Opportunities and SMDF Responsible Mining.

The Fund prioritises investments in the mining sector that will deliver economic and social impact, unlock increased private sector participation and mobilise additional capital. The three Fund invests across the entire mining lifecycle, including: Data Development and Targeted Exploration, Mine Development and Production (greenfield and brownfield and Enabling Infrastructure (processing, power etc.)





**Note: This manual is subject to periodic changes  
Please visit [africafc.org](http://africafc.org) or [smdf.gov.ng](http://smdf.gov.ng) for regular updates of the manual**





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