IGF

INTERGOVERNMENTAL FORUM
on Mining, Minerals, Metals and
Sustainable Development

TRAINING WORKSHOP FOR UEMOA MEMBERS STATES OFFICIALS ON MINING ECONOMICS

BAMAKO, MALI JULY 3–7, 2017

INTRODUCTION

The training workshop for government agency officials from the member states of the West African Economic and Monetary Union (UEMOA) was held at the Radisson Blu Hotel in Bamako, Mali, from July 3–7, 2017 on the subject of mining economics.

This training workshop was organized by the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF), in partnership with the UEMOA Commission, in the context of implementing the Memorandum of Understanding between the UEMOA Commission and the International Institute for Sustainable Development (IISD).

The workshop was attended by 32 officials from UEMOA member states' government agencies in charge of mining, economy and finances.

The training seminar was moderated by Benjamin Roux, financial expert and Mission Director from Fair Links, and Dr. Suzy Nikièma, International Law Advisor and IISD Africa Regional Coordinator for the Economic Law and Policy Program. The training was held in French.

OPENING CEREMONY

The opening ceremony was presided over by Professor Tiémoko Sangaré, Mali's Minister of Mines. It was marked by two speeches: the first from Ayi Atayi-Agbobli, an advisor to the UEMOA commission representation office in Bamako, and the second from Professor Sangaré.

PRESENTATION OF THE TRAINING OBJECTIVES

Following the opening ceremony, Dr. Suzy Nikièma presented the seminar's aims and the main issues for discussion. She reminded those present that the training program had been designed to share knowledge on the concepts, tools and techniques necessary to achieve fair distribution of mining income between the member states and mining companies operating in the UEMOA area, in particular the financial modelling of mining projects.

By the end of the workshop, participants could expect to have a critical overview of feasibility studies and financial assessments, test the economic sensitivity of mining companies' financial models with a critical overview and understand all the possibilities of implementation.

Dr. Nikièma emphasized that the common thread of the training program was the fair sharing of mineral resource rents. Participants were also invited to reflect on this concept over the course of the training session. To this end, she presented the participants with two ways of asking the question of how to justly share mineral resource rents: (1) What is the right level of taxation for the government? (Everything else goes to the investor) or (2) What is a fair rate of return for the investor? (Everything else or almost everything else goes to the state). She referred back to discussions concerning the correct answer on the last day of the workshop.

IGF PRESENTATION

Dr. Nikièma gave a presentation on the IGF. She reflected on the establishment of the IGF in 2002 at the World Summit in Johannesburg, before presenting the objectives, working pillars and services offered by the organization. In particular, she highlighted IGF's working pillars: engagement and partnership, the Mining Policy Framework's six pillars and capacity development. After commenting on the fact that four UEMOA member states are already members of the IGF (Burkina Faso, Mali, Niger and Senegal), Dr. Nikièma took the opportunity to provide preliminary information on the IGF membership process.

TRAINING MODULES

1. INTRODUCTION TO HOW MINING PROJECTS ARE FINANCED

This module was presented by Benjamin Roux. After remarking that the two main sources of financing for mining projects are equity financing and debt financing, he focussed on the advantages, constraints and risks for the investor that are associated with each type of financing method. He also tackled the potential impact of the way in which mining projects are financed by the state, in particular the link between debt repayment conditions and dividend payments to the state as a result of its free minority capital share. Mr. Roux also drew attention to the interest in verifying the profile and credibility of the financial institution financing the project as part of the state's assessment of the project. Lastly, he emphasized a mining project's equity–debt ratio and the implications for mining companies' operating strategies and the tax revenues expected by the state.

2. ECONOMIC PRINCIPLES FOR MINERAL RESOURCE RENT SHARING AND FISCAL POLICIES

At this juncture, Mr. Roux explained that the conditions for the fair share of mineral resources rent are based on a remuneration of each party according to what it has contributed and the risks it has taken. He also pointed out that the state provides, among other things, mineral resources, a legal and political framework, infrastructure and security. The investor, on the other hand, brings the capital, skills and know-how, technology, a skilled workforce and its ability to support risks.

The risks involved are primarily geological, price volatility, operational, regulatory, political and security risks. As each risk implies an increased cost to the investor, to some degree, the investor will need to be remunerated for the value of the costs incurred. Therefore, it is up to the state to ensure that certain costs are not overestimated by the investor, in particular in the context of discount rate calculation.

As part of this module, Mr. Roux was also able to discuss the concept of "windfall profits" and the importance of states having flexible fiscal regimes that are able to ensure that the sharing of mineral resource rents remains fair despite any possible fluctuations in commodity prices.

3. ROUNDTABLE DISCUSSIONS

This session, which was hosted and moderated by Dr. Nikièma, allowed participants to share information and experience about the following issues in their respective countries:

- The permitting process in which investors must submit the project feasibility study
- The requirement/presence of a financial model for the project in the feasibility study
- The formal procedure for analyzing feasibility studies and the state agencies involved
- The agency that receives the financial statements and how they are used

It emerged from the exchanges that, in almost all member states, a feasibility study is required to obtain an exploitation permit. In all member states, the economic and financial mining project models are provided by mining companies as part of feasibility studies, usually in the format of a PDF table (with some exceptions). The departments in charge of taxes are those that receive and use the financial statements at the government level. Finally, the capacity for carrying out an in-depth analysis of financial models submitted, in addition to the close collaboration between the ministerial departments for using and following up of the various documents submitted, is a challenge for every state.

Participants were given the opportunity to discuss their challenges in accessing, analyzing and using project feasibility studies, financial models and financial statements by sharing best practices and innovative solutions tested in some countries.

4. IDENTIFYING CRITICAL ELEMENTS OF A FEASIBILITY STUDY

As part of his presentation, Mr. Roux identified the main sections present in any good feasibility study, specifically the geology and the economy/finances sections. He then weighed in on the financial section to identify the key elements that government agencies should always pay attention to when analyzing the document. This involves evaluating the project's fiscal resources for the project, the level of production; operating cost projections, mineral price projections; economic models for the project and its main indicators; and, last but not least, analysis of the sensitivity of the financial model to the variations of different parameters.

5. INTRODUCTION TO FINANCIAL MODELLING OF MINING PROJECTS: THEORY AND PRACTICE

This session allowed Mr. Roux to address one of the main components of the financial part of a feasibility study in detail: the financial model. He began his talk with a description of the investment cycle and underlying economics for modelling a mining project, including determining cash flow, the calculation of the discount rate and the choice of hypothesis for the model's sensitivity analyses. Participants were also introduced to the main indicators underlying investment decisions made by mining operators: the investment value, the return on investment and the cost of capital. Mr. Roux also described the main data present in any financial model, drawing attention to incomplete or abridged models that are sometimes submitted. The issues of estimating the price of minerals, Opex, Capex, cost of capital and income data were also mentioned. Mr. Roux then explained how to transcribe this data into Excel and how to use it as part of the investment decision. In addition, the key indicators for a financial model are the project's Net Present Value (NPV), the internal rate of return (IRR) and the weighted average cost of capital (WACC). It is also important for the state to consider the effective tax rate (ETR) and to make an informed analysis. Lastly, Mr. Roux highlighted some limitations to be considered as part of building and using an economic model, in particular the sensitivity of the model's results to the hypothesis chosen.

This session ultimately allowed participants to understand investor psychology. Participants were reminded that the investment decision is intrinsically linked to the concept of profitability. Thus, when a project's IRR is lower than its cost of capital (WACC), it is unlikely that the investment will be implemented since the project's NPV will be subsequently negative and the project will not create value for the investor.

The different types of tax levers applicable to the extractive industries were specified by emphasizing their respective advantages and disadvantages. Beyond traditional tax levers that are indexed to profits or production, participants had the opportunity to discuss signature bonuses. In particular, it is clear that, although not specifically provided for in the tax systems of the member states, it is still possible to negotiate a signature bonus on a case-by-case basis with an investor. This can result in a fairer share of mineral resource rents when the tax system in place proves unsuitable for a particular project.

6. GROUP WORK ON A PRACTICAL CASE

In preparation for this session, an Excel-based financial model about a fictive gold mining project in West Africa was created and distributed to participants. The aim was to introduce them to the project's economic assumptions, to build the financial model in Excel, to interpret the model's economic results and to use the model's features.

To this end, six working groups were set up and participants worked on the following exercises:

- Exercise 1: Sensitivity analysis of the model to gold prices
- Exercise 2: Sensitivity analysis of the model to operating costs
- Exercise 3: Sensitivity analysis of the model to investments costs
- Exercise 4: Impact analysis of a 5-year tax holiday
- Exercise 5: Impact analysis of a royalty rate increase
- Exercise 6: Impact analysis on the implementation of a signature bonus

Generally speaking, for each hypothesis proposed, each group:

- Calculated and analyzed the NPV for the investor and for the state, IRR and the ETR
- Performed simulations and compared the value of these indicators in each of the proposed cases with their initial values
- Presented the share of the extractive income for the state and the investor
- Assessed the adaptability of the financial model in relation to the fiscal levers provided for in the model

Going over these practical exercises again revealed that all groups had a good understanding of the exercises and that they had tackled them appropriately. This exercise allowed them to understand the fundamentals of a mining project's profitability calculations and the impact of economic and fiscal variables on the project. It was also shown that financial models are particularly sensitive to the underlying hypothesis, and especially to commodity prices. The ability to vary the hypothesis of an economic model is also decisive in the negotiation process between the state and the investor. Similarly, the ability of government agencies to interpret the results of models, particularly on the issue of fair distribution of mineral resource rents, is decisive. As such, it is essential that the different government agencies involved communicate effectively regarding the use of models and their underlying hypotheses.

This session also made it possible to highlight the fact that financial models in the format of a PDF table are of very limited use for the state, and do not necessarily allow testing of the reliability of the model and doing the sensitivity analyses. Therefore, in PDF format, a financial model cannot be a real tool for decision making, supervision and monitoring of mining activities.

Mr. Roux also briefly presented financial models rebuilt on the basis of two real anonymous mining projects in a UEMOA member state. Participants were able to discuss the conclusions that emerged from analyzing these economic models.

Participants were given the opportunity to discuss the challenge of defining a tax system that is flexible enough to adapt to each mining project. Negotiating a signature bonus has emerged as a possible option for a non-negotiable tax system; but this option should be used with caution and in compliance with transparency rules and good governance. The importance of investing time and resources in any negotiation and renegotiation processes of a mining contract was also emphasized.

7. UNDERSTANDING, MONITORING AND EVALUATING FINANCIAL STATEMENTS

During this session, participants were introduced to approaches to reading and analyzing financial statements in line with financial models.

Mr. Roux also reiterated the importance of monitoring mining operations through: physical control (of imported and exported goods and physical presence during stock taking), financial control (reconciliation methods, additional audits, etc.) and the use of reference databases to control the price of mining company transfers. These controls must be both quantitative and qualitative in order to ensure their effectiveness. He also explained the role and importance of financial models and balance sheets in monitoring and tracking mining operations.

This session also reveals that the principles of fairness, transparency and simplicity are the foundation of effective tax administration. The difficulties inherent in implementing an efficient tax administration are mainly based on the state's ability to ensure the reliability of the levels of income and costs declared by companies. Participants were given the opportunity to share their experiences on the difficulties they face in their jurisdictions, but also on the steps taken to try to remedy them.

8. STABILIZATION CLAUSES: ISSUES AND RISKS FOR OPTIMIZING TAX REVENUES

Dr. Nikièma presented on the concept of stabilization clauses and the various legal issues related to these types of clauses in developing countries. She first established the typology of stability clauses, before presenting the origins and statistics concerning these clauses, as well as the evidence provided by investors and some financial institutions to defend their necessity. Dr. Nikièma then analyzed the risks and problems raised by the stabilization clauses, stressing the controversies linked to the appropriateness of this type of clause. She concluded her remarks by referring back to the fact that there was nevertheless a consensus on the refusal of broad stabilization clauses, whereas clauses limited to tax regimes were tolerated. Her final recommendation, based on the many disadvantages of stabilization clauses, is to no longer include such clauses in laws, regulations and mining contracts. Otherwise, stabilization should at least be limited to the tax system, as well as being specific in terms the fiscal element stabilized, and with a limitation on the stabilization period.

The role that financial models can play in determining the scope of stabilization clauses was also discussed, in particular in terms of their duration.

Finally, Dr. Nikièma presented recently proposed alternatives to stabilization clauses, such as price-indexed royalty rates, while pointing out the need for rates to be established on the basis of economic analyses using the financial models for mining projects in the country.

Participants had the opportunity to discuss if stabilization clauses are necessary, and possible alternatives.

CONCLUSIONS AND KEY MESSAGES

At the end of the workshop, Dr. Nikièma returned to the key messages from the training session, focusing in particular on the use of financial models during negotiations with mining companies and during the process of reviewing national mining regulations. As a matter of fact, analyzing these instruments could put the government in a better negotiating position thanks to the economic data on the impact of the modifications envisaged on the projects' profitability. She also commented on financial models possibly being very useful in fixing progressive royalty rates indexed to the price of raw materials.

Furthermore, she re-emphasized the two issues relating to the fair distribution of mining income that were introduced on the first day. The participants were asked to choose between the following two questions, necessary for defining the fair share of mineral resources rent: (1) What is the right level of taxation for the government? (Everything else goes to the investor) or (2) What is a fair rate of return for the investor? (Everything else or almost everything else goes to the state). The majority of participants felt that, over the course of the workshop, they had changed their perspective on the right question to ask themselves, from question (1) to question (2).

Therefore, a fair rate of return for the investor, notably by means of IRR in the financial model of mining projects, is now perceived as an essential element to consider in the question of the fair sharing of mineral resource rents. Similarly, several participants stated that they understood the importance of using financial models as decision-making tools as part of their day-to-day work.

CLOSING CEREMONY

The closing ceremony was chaired by Mr. Bangraogo Emile Kaboré, Director of Mines and Oil at the UEMOA Commission. Certificates of participation were issued to all participants at the end of the ceremony.

For more information about the IGF please contact the Secretariat:

220 Laurier Avenue West, Suite 1100
Ottawa, Ontario Canada K1P 5Z9
Email: Secretariat@IGFMining.org
Phone: +1 613-778-8767 (Ext. 105)

IGF
IGFMining.org
@IGFMining

Secretariat hosted by IISD

Secretariat funded by Canada