

附属資料

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Mauritania

1. Mining Legislation

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| 1) Mining Law: | Law No. 99/013 related to Mining Code (June 23, 1999) |
| 2) Implementation Rule: | Mining Policy Declaration (March 6, 1997), Decree No. 99.160 on Mining Title (December 30, 1999), Decree No. 139/2000 on Mining Inspectorate (November 21, 2000), Law No. 2002/02 related to Model Mining Convention (January 20, 2002), Decree on Mining Environment (Draft), Decree on Quarry Mining (Draft) |
| 3) Relevant Laws and Regulations: | Investment Code, Labor Code, General Tax Code, Customs Code |
| 4) Government Contract and Agreement: | Model Mining Convention ¹ (MMC ² , Art. 1) |
| 5) Government Authority: | |
| Ownership of Minerals | State ³ (MC ⁴ , Art. 8) |
| Regulatory Government Authority | Direction of Mining and Geological Administration ⁵ , Mining Cadastre Department of the Ministry of Mines and Industry ⁶ , Ministry of Rural Development and Environment, Office for Geological Research ⁷ |
| Granter of Title(s) | PL ⁸ – Minister of Mines and Industry (MC, Art. 16); EL ⁹ – Council of Ministers (MC, Art. 20); ML ¹⁰ - Council of Ministers (DMT, Art. 65) |
| International Arbitration | Allowed (MC, Art. 103) |
| 6) Restriction of Mineral Activity on: | |

¹ All exploration license holders must accept the content of the model mining convention.

² Law No. 2002/02 related to Model Mining Convention (January 20, 2002)

³ Quarry minerals belongs to land owners (MC, Art. 9)

⁴ Law No. 99/013 Relating Mining Code (June 23, 1999)

⁵ Direction of Mining and Geological Administration has four units which are the Geological Service, Mining Service, Mining Environment Service, and Hydrocarbon Service.

⁶ The Ministry of Mines and Industry supervise the activity of four public company: National Industrial and Mining Co. (SNIM); Arab Metallurgical Industries Co. (SAMIA); Arab Company for Mining at Inchiri (SAMIN); and Guelb Moghrein Co. at Akjout (GEMAK) which are in charge of exploiting iron ore, gypsum, copper, and copper, gold and cobalt respectively.

⁷ Office of Geological Research (OMRG) is an independent and autonomous agency of geological survey and exploration and fully funded by the Government.

⁸ Prospecting license for land prospecting and airborne surveys (MC, Art. 16).

⁹ Exploration license

¹⁰ Exploitation License that confers its holder the exclusive right of prospecting, exploring and exploiting the mineral resources mentioned. It shall also confer the right of carrying out any operation of concentration,

Foreign Direct Investment	None
Commodities	None ¹¹
Application Area	Promotional zones ¹² and reserved zone ¹³ (MC, Art. 1)
7) Coverage of the Mining Law:	Prospecting, exploration, exploitation of mineral resources with the exception of liquid and gaseous hydrocarbon, processing of tailing, and marketing (MC, Art. 2)
8) Exploration Stage:	
Title Acquirement	Apply to the Mining Cadastre Department of the Ministry of Mines and Industry ¹⁴ (MC, Art. 16; DMT, Art. 7)
Duration for Approval	PL – 15 days; EL – within 2 months
Necessary Conditions for Permitting	PL – none ¹⁵ (MC, Art. 15); EL – yes ¹⁶ (MC, Art. 19 and 24).
Title(s) Exclusivity	PL – none ¹⁷ (MC, Art. 18; DMT, Art. 28); EL – yes ¹⁸ (MC, Art. 19)
Initial Term for Exploration	PL – 6 months for all mineral groups (MC, Art 16); EL – 3 years for a specific mineral group (MC, Art. 23)
Renewal(s)	PL – yes, 6 months x 1 (DMT, Art. 19); EL – 3 years x 2 (MC, Art. 23)
Extent of Concession	PL – no limitation; EL – 1,500 km ² and 10,000 km ² for the Group 7 mineral ¹⁹ (MC, Art. 21).

treatment, and marketing (MC, Art 30).

¹¹ Mining Code classifies mineral resources into 7 groups: Group 1 – iron, manganese, titanium, etc; Group 2 – base and rare metals; Group 3 coal; Group 4 radioactive minerals; Group 5 – industrial minerals; Group 6 – precious stones; and Group 7 – diamond (MC, Art. 5).

¹² The State, the Minister of Mines, may create promotional zone where a public national operator will realize prospecting and reconnaissance works in a limited period to promote the development of mining exploration (MC, Art. 1 and 26). Its maximum area shall not exceeding 5,000 km². Its duration shall not exceed two years. No more than two promotional zones may simultaneously exist (MC, Art. 26). At the end of the period of the promotional zone, the date and the results of the works thus achieved shall be made public. Exploration license shall be granted according the normal procedure indicated in the Article 24 of the Mining Code (MC, Art. 28).

¹³ Reserved zone is for national park, environmental protection area, ecological zone, and military area that are reserved from mining and not from an economic purpose.

¹⁴ The exploration license shall be granted by virtue of a decree approved by the Council of Ministers (MC, Art. 20).

¹⁵ Any physical person may carry out prospecting activities (MC, Art. 15). The applicant should submit its technical experiences, work plan, incurred minimum expenses, bank statement, registration in the Register of Commerce (DMT, Art. 30).

¹⁶ The Exploration license may be granted to any physical or legal entity (MC, Art. 20). However, the exploration license shall be granted to the first applicant who has the required technical and financial capabilities to carry out exploration and to meet the environmental requirements (MC, Art. 24).

¹⁷ Prospecting license holders do not have a exclusive right to obtain an exploration license.

¹⁸ The granting of the exploration license does not forbid, during its validity, the granting of another exploration license partly or totally superposing upon the first, if the new license is for another group of resources (MC, Art. 20).

¹⁹ For Groups 1 to 6, a physical or legal entity may not have, simultaneously, more than 20 exploration licenses. For Group 7, a physical or legal entity may not have, simultaneously, more than 10 exploration licenses (MC, Art. 22).

Shape of Concession	grid based mineral title recording system ²⁰ (MC, Art. 13 and 14)
Reporting Obligation	PL – yes within 18 months after the end of the works (MC, Art. 17); EL - yes as an annual report of activities (MC, Art. 51)
Relinquish Obligation	PL – not specified; EL – voluntary relinquishment (MC, Art. 23)
Transfer of Concession	PL – not specified; EL – yes ²¹ (MC, Art. 25)
Concession Holding Fee	PL – none; EL – UM ²² 250 per km ² for the first validity period, UM 500 per km ² for the second validity period, UM 1000 per km ² for the third validity period, annually (MC, Art. 87)
Minimum Expenditure Obligation	None
9) Security of Tenure:	
Exclusive Rights to Mining	Yes ²³ (DMT ²⁴ , Art. 59)
Accompanied Documents to the Application	Technical report, work and investment plan, bank statement, feasibility report, environmental impact study, rehabilitation plan, agreement with private land owners (DMT, Art. 59)
Duration for Approval	4 months
10) Mining Stage:	
Maximum Extent of Concession	Not exceed exploitable deposit and its possible extension ²⁵ (MC, Art. 30)
Initial Term for Mining	30 years (MC, Art. 32)
Renewals	10 years for several times (MC, Art. 32)
Concession Holding Fee	UM 25,000 per km ² , annually (MC, Art. 87)
Minimum Production Requirement	None ²⁶
Mining Rights Transfer	Yes ²⁷ (MC, Art. 34)

²⁰ The Mauritanian surface is divided into squares of one kilometer. Every mining title shall made up of a certain number squares, having one side, at least, in common (MC, Art. 13 and 14).

²¹ Transfers of exploration license may not be refused except for the reasons prevailing in the procedures of their granting. Transfers shall come into effect after the issuing of an authorization by virtue of a decision of the Minister of Mines (MC, Art. 25).

²² Mauritanian currency

²³ The exploitation license shall be granted only to a company created under the Mauritanian laws (MC, Art. 29 and 31). No one is entitled to get an exploitation license if he does not have the technical and financial capabilities to carry out exploitation works and to meet environmental requirements of the national and international laws as well as international principles of international laws (MC, Art. 33).

²⁴ Decree No. 99.160 on Mining Title (December 30, 1999)

²⁵ The exploitation license may only cover the inner zone of the exploration license and the resources belonging to the group for which it was granted (MC, Art. 31).

²⁶ The mining operator must apply the most confirmed methods likely to make the deposit yield the best final results that are compatible with local economic conditions as well as those of the market (MC, Art. 53).

²⁷ The transfer or the leasing of the exploration license shall not come into force as long as it is not authorized by the virtue of a decree. The Minister of Mines should give the answer within 60 days commencing as of the date of the receipt of the request (MC, Art. 34).

Mortgagability	Yes (MC, Art. 34)
Compensation Requirement	Yes (MC, Art. 68 and 69)
EIA Requirement	Yes (MC Art. 33)

2. Fiscal Regimes

1) Corporate Income Tax:	25% ²⁸ (MMC, Art. 7) ²⁹
2) Dividend Withholding Tax:	16% on repatriate dividends and 30% for local partner
3) Royalty:	Group 1 and 2 (other than gold) – 1.5 to 2.5%; gold and Groups 3 and 5 outside industrial and ornamental rocks – 3%; Groups 6 and 7 – 3 to 7%; industrial and ornamental rocks – 1 to 1.5%; and quarries – 0% on sales (MC, Art. 88)
4) Import Duty:	Complete exemption during exploration and exempt for the first five years of exploitation and applied 5%, thereafter, on all imported goods and products (MC, Art. 85)
5) Export Duties on Minerals:	None
6) Value Added Tax:	Zero rated value added tax (MMC, Art. 44)
7) Tax Holiday:	3 years income tax holiday commencing as of the first financial years of an exploitation license (MC, Art. 90; MMC, Art. 6) ³⁰
8) Exchange Control:	None, but through the Central Bank of Mauritania (BOM)
9) Foreign External Account:	Allowed
10) Tax Stabilization:	Yes, during the end of exploitation license (MMC, Art. 5 & 54)
11) Government Equity Requirement:	None
12) Accelerated Depreciation	Allowed

5. Environmental Regulations

1) Environmental Law:	Decree No. 139/2000 on Mining Inspectorate (November 21, 2000), Decree on Mining Environment (Draft)
2) Environmental Administration for Mining:	Ministry of Mines and Industry
3) Inspection and Monitoring Agency:	Ministry of Mines and Industry
4) Emission/Effluent Standards:	None
5) Community Consultation Obligation:	Yes (MC, Art. 67)
6) Mine Close/Reclamation Bond:	Yes (Draft Decree on Mining Environment)

²⁸ The holder of an exploitation license shall be entitled to settle depletion allowances. The amount shall not exceed the fifth of the taxable profit of each financial year (MC. Art. 93).

²⁹ Loss carry forward of 4 years.

³⁰ Accelerated depreciation is available in the General Tax Code. Pre-exploitation stage expenditures (exploration expenditures, feasibility studies) are depreciated in two years at the exploitation stage.

Questionnaire for Mining Sector Reform

Questions	Answer
1. Legal Regime	
a) Security of tenure	
Q1: Legal relation between exploration and mining license	
A1: one licensing scheme	
A2: guaranteed right to obtain mining license subject to set and transparent criteria	X
A3: priority right to apply for mining license but approval is discretionary	
A4: weak legal linkage between exploration and mining license	
Q2: Transferability of exploration and mining licenses	
A1: transferable without prior approval from the government	
A2: transferable with prior approval from the government	X
A3: non-transferable	
Q3: Maximum duration of exploration license, including renewals	
A1: 7 years or more	X
A2: 4 - 7 years	
A3: less than 4 years	
Q4: Duration of mining license	
A1: 50 years or more	X
A2: 25 to 49 years	
A3: less than 25 years	
Q5: Discretionality of mining law	
A1: clear, transparent, and consistently applied criteria for approvals	X
A2: unclear, discretionary, and inconsistently applied criteria for approvals	
Q6: Freedom to sell the mining products internationally	
A1: yes	X
A2: no	
b) Requirements for local participation	
Q1: Participation of domestic or state owned companies	
A1: no requirement for participation	X
A2: requirement for paid (working) minority participation	
A3: requirement for free project minority (carried) participation	
A4: requirement for free (carried) majority participation	
Q2: Nationality requirements to obtain license	
A1: no nationality requirements for exploration or mining license	
A2: no nationality requirements for exploration but local nationality requirements for mining license	X
A3: nationality requirements for both exploration and mining license	
c) Access to the mineral resources	
Q1: Government "reserved" or "strategic" areas for mineral activities	
A1: no reserved or strategic areas for economic interest by the government	X
A2: limited reserved or strategic areas for economic interest by the government	
A3: reserved country wide area for economic interest by the government	
Q2: Application for exploration license	
A1: licensing based on "first come - first served" principle	
A2: approval based on set criteria re: technical and financial capacities of applicant	X
A3: approval at the discretion of government based on unspecified technical, financial and work program criteria	
Q3: Recording of mining titles	
A1: "quadrangles" (grid based mineral title recording system)	X

A2: rectangular oriented North-South and East-West (UTM or latitude/longitude coordinates)	
A3: irregular shape	
Q4: Approval process to obtain mining license	
A1: no or limited government approvals required	
A2: license granted subject to government approval only of environmental impact statement	
A3: license granted subject to government approval of feasibility study and environmental impact statement	X
d) Operational aspects	
Q1: Requirements for government approval of	
A1: no government requirements	X
A2: preference to local personnel and vendors/suppliers	
A3: mining methods, production rates, use of local equipment, hiring of personnel, etc.	
Q2: Minimum production requirements	
A1: no	X
A2: yes	
2. Financial and Taxation Aspects	
a) Financial regimes	
Q1: Use of offshore accounts	
A1: yes	X
A2: no	
Q2: Guaranteed right to repatriate profits	
A1: yes, in foreign currency or no restrictions (open market availability)	X
A2: yes, in foreign currency subject to availability through Central Bank	
A3: no guaranteed right to repatriate profits	
Q3: Exchange control	
A1: minor administrative controls but market based exchange rates	X
A2: significant controls and non-market based exchange rate	
Q4: Predictability and stability of mining taxation regime	
A1: mining legislation or contracts guarantee stability of taxes for certain periods	X
A2: some changes to taxation arrangements but country track record is acceptable	
A3: frequent changes to taxation arrangements	
b) Tax burden for mining projects	
Q1: Tax structure.	
A1: predominantly profit based taxes only with no or moderate ad valorem royalty	X
A2: predominantly output or input based taxes (royalties, customs duties, VAT, employment taxes)	
Q2: Tax rates	
1: Royalty	
A1: none or less than 2% ad valorem	
A2: 2 - 4% ad valorem	X
A3: 4% or more ad valorem	
2: Corporate income tax	
A1: less than 30%	X

A2: 30 - 40%	
A3: 40% or more	
3: Dividend withholding tax	
A1: less than 10%	
A2: 10 - 18%	X
A3: 18% or more	
4: Value added tax	
A1: none, exempt, or recoverable from clients or upon export of product	X
A2: applied and not recoverable from clients or upon export of product	
5: Import taxes and duties (excluding VAT)	
A1: none or exemption granted for mining industries	
A2: applied less than 10%	X
A3: applied 11% - 20%	
A4: applied, greater than 21%	
6: Taxes/fees/other levies due on exports (in addition to royalties)	
A1: none	X
A2: yes, but less than 1%	
A3: yes, 1 - 3%	
A4: yes, greater than 3%	
7. Accelerated Depreciation	
A1: allowed for calculation of income tax	X
A2: not allowed for calculation of income tax	

3. Institutional Arrangement

a) Mining institution

Q1: Institutional capacity of the government to administer the mining legislation	
A1: Reasonably good institutional and human capacity	
A2: Weak institutional and human capacity	X
Q2: Time required to obtain exploration license	
A1: less than 3 months	X
A2: 3 - 6 months	
A3: more than 6 months	
Q3: Specialized office for mining cadastre	
A1: yes	X
A2: no	
Q4: Computerized mining cadastre system	
A1: yes	X
A2: no	

b) Geological information

Q1: Adequacy of geological map coverage	
A1: good up-to-date country wide coverage of 1:200,000 scale or better	X
A2: poor country coverage, out-dated, scale greater than 1:200,000 scale	
Q2: Accessibility of geology information at reasonable cost.	
A1: yes	X
A2: no	

c) State Owned Enterprises

Q1: Situation of State Owned Mining Enterprise (SOE)	
A1: no SOEs or being privatized in a credible manner	
A2: SOEs are profitable, world class operation, no plans to privatize	
A3: SOEs are profitable (leaves some room for improvement) partially privatized or in process of privatization	X
A4: Some SOEs profitable and are privatized or privatizable, but many SOEs are still	

in government hands losing money

A5: Most SOEs unprofitable and not privatizable

d) Institutional arrangement for Environmental Impact Assessment

Q1: Office responsible for environment

A1: Environmental unit within Ministry of Mines responsible for approval of EIA **X**

A2: Environmental unit within Ministry of Mines advises Environment ministry
which has final EIA approval authority

A3: No environmental unit with Ministry of Mines, only environment ministry

A4: no EIA submission or review requirements

資料-3 収集資料リスト

1. Mining Policy Declaration (March 6, 1997)
2. Law No. 99/013 related to Mining Code (June 23, 1999)
3. Decree No. 99.160 on Mining Title (December 30, 1999)
4. Decree No. 139/2000 on Mining Inspectorate (November 21, 2000)
5. Law No. 2002/02 related to Model Mining Convention (January 20, 2002)
6. Law No.01/2002 related to General Tax Code (January 22, 2002)
7. Decree on Mining Environment (Draft)
8. Decree on Quarry Mining (Draft)
9. Decree on Mining Environment Protection (Draft)
10. Mining Journal Supplement “Mauritania” (December, 2000)

Minutes of Meeting
for
The Project Formation Study
on
Strategic Plan Survey of Mineral Resources Development
in the Islamic Republic of Mauritania

Agreed Upon Between

Mauritanian Office for Geological Researches (OMRG)

and

Japan International Cooperation Agency (JICA)

Nouakchott, Thursday, September 19, 2002



Mr. Djimera Oumar
Director General, OMRG
(Mauritanian Office for Geological
Researches)



Mr. Masato Koie
Leader,
The Project Formation Study Team, JICA

The Project Formation Study Team (hereinafter referred to as "the JICA Study Team") for the Study of Strategic Plan Survey of Mineral Resources Development in the Islamic Republic of Mauritania (hereinafter referred to as "the Study") dispatched by the Japan International Cooperation Agency (hereinafter referred to as "JICA") had a series of discussions on the Study in Nouakchott with the officials of Mauritanian Office for Geological Researches (hereinafter referred to as "OMRG"), and other relevant officials in Mauritania from 14th September 2002 to 19th September 2002.

The salient results of discussions mutually agreed are as follows.

1. Outline of the Study

The JICA Study Team and the relevant organizations in Mauritania discussed the possibility of cooperation under the JICA Development Study Program and the tentative Scope of the Study. The detailed Scope of the Study, including work schedule, needs to be determined on the basis of further discussions between both parties. The agreed tentative Scope of the Study is shown below.

2. Tentative Scope of the Study

The Study will cover the activities of (1) compilation and production of economic geology information of the country, (2) integration of all the earth science information as a GIS database, and (3) ore deposits modeling and metallogenic interpretation.

The Terms of the Reference of the Study will be as follows:

Study of Strategic Plan Survey of Mineral Resources Development

- (1) Compilation and review of economic geology information
 - 1) review of geology publications and exploration reports in Mauritania
 - 2) remote sensing data analysis
 - 3) review of infrastructure and environment (road, mine locations, water point, national park, land mine area, etc.)
- (2) Data analysis of the compiled and produced data
 - 1) field geological survey and mineral deposits assessment
 - 2) integration of earth science data (geology, geophysics, geochemistry, hydrology)
 - 3) upgrade of the existing GIS
- (3) Ore deposits modeling and metallogenic interpretation
 - 1) ore deposits modeling of each type of ore species
 - 2) metallogenic interpretation
 - 3) strategic prospectivity review
- (4) Strategic planning for mineral exploration promotion
 - 1) establishment of economic geology survey policy
 - 2) publication of book and CD on Mauritanian economic geology and mineral deposits
 - 3) promotional seminar for Mauritanian mineral sector

3. Others

(1) OMRG has requested the urgent needs of field survey, mineralogical and chemical analytical equipment and OMRG staff training in Japan.

(2) To avoid overlaps with the ongoing and the next World Bank mining projects (PRISM: Projet de Renforcement Institutionnel du Secteur Miner), OMRG will appropriately report their progress to JICA.

(3) JICA will examine the Tentative Scope of the Study thoroughly with the relevant ministries and institutions in Japan and inform the possibility of the further study by the end of December 2002.

**PROJECT FOR INSTITUTIONAL
REINFORCEMENT OF THE
MINING SECTOR
(PRISM)**



PRISM is a project to provide technical assistance to the mining sector in the Islamic Republic of Mauritania with joint funding by the World Bank, the Islamic Development Bank, the French Co-operation Agency and the Mauritanian Government. The total cost of PRISM is in excess of US\$ 20 million.

The project commenced during the first half of 1999 when IDA credit 3206-MAU, granted by the World Bank to the Mauritanian government, entered into force. PRISM aims at attaining the following development goals:

1. Improving Mauritania's capacity to attract private investment in the mining sector.
2. Strengthening institutional capacity to deliver efficient and transparent administration services in this sector.
3. Creation of an environmental management capacity for the mining sector.
4. Production and dissemination of basic geological information (airborne geophysical surveys and geological maps)

The long term goal of the Project is to diversify and increase Mauritania's mineral production. This will in turn increase the State's tax revenues from this sector and contribute to the social and economic development of the country.

The Project consists of the following four components:

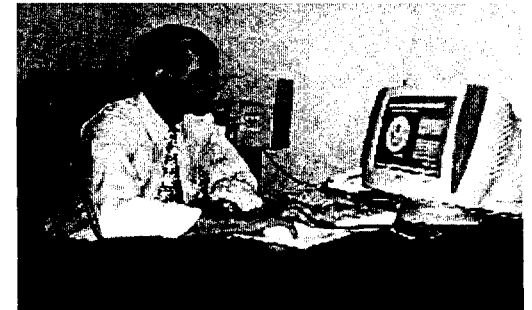
- A. Institutional Reform (*Implementation of a new institutional framework to manage the minerals sector*)
- B. Developing the geological infrastructure (*Airborne geophysical surveys, geological surveys, a programme of geochemical exploration sampling and setting up of a GIS*)
- C. Creating an environmental management capacity for the minerals sector (*Studies of the social and economic impact of mining operations and basic environmental conditions*)
- D. A co-ordination unit " Unité de Coordination du Projet Minier " (UCPM) (*Project Management and Co-ordination*)

The main activities related to Component A: "Institutional Reform" are:

A.1 Institutional reform focussed on the adjustment and the implementation of the new institutional framework which was defined during preparation for the Project, and the adaptation, within this framework, of the functions of state institutions to the new role of the State as a regulator and promotor of private investment in this sector in the course of a participatory process involving all stakeholders in the development of the sector. On-the-job training, supplemented by courses abroad, is provided to assist the management and staff of state institutions in

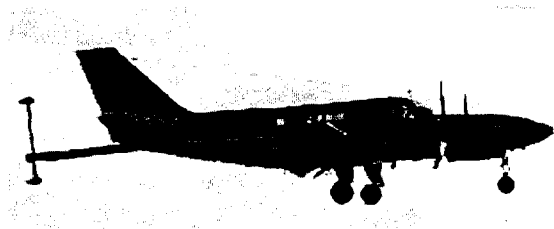
adapting to their new functions.

A.2 The Mines Registry (Cadastre): Strengthening the cadastre is the cornerstone in establishing a climate favourable to private investment. An efficient cadastre and transparent procedures guarantee legal and technical security of mining titles. The 'Unité du Cadastre Minier' (UCM), a technical institution of mines administration directly responsible to the Minister, has been functioning since December 1999. The Project also financed the checking of the geodesic network, and its calibration to the WGS84 datum, making it possible to use GPS for the mining titles register and for a modern computerised system (GIS technology) to be implemented, so that the precise location of mining titles can be registered.



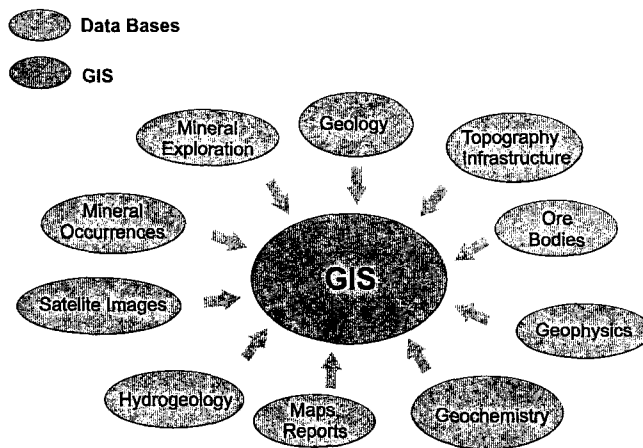
The goal of Component B: "Updating of Geological Infrastructure" is to provide private investors with the essential basic geological and geophysical information to evaluate the mineral potential of the country and thereby to encourage investment in exploration. This component has six facets:

B.1 An Airborne Geophysical Survey of 371 000 line km financed by the World Bank, covering about 155 000 km² over the Rgueibat Shield in northern Mauritania and a survey over 125 000 km², financed by the Islamic Development Bank, in southern Mauritania on the border with Mali. Airborne geophysics is used in support of geological mapping as well as to attract investment in exploration.



B.2 A geological survey producing 1: 500 000 metallogenic maps of the entire country (90 square degree sheets), supplemented by more detailed 1: 200 000 maps of the zones with enhanced mining prospectivity (32 sheets or 40% of the national territory). In the northern zone this activity is co-financed by the French Co-operation Agency, while co-financing by the Islamic Development Bank has been made available for the southern zone.

B.3 Implementation of a Geological and Mineral Information System (GMIS) which will enable rapid access to existing information or information which will be generated by the Project. The GMIS will be the principal tool for the dissemination of the results of the surveys and will be at the disposal of potential investors.



Architecture of the GMIS

B.4 Multi-element and gold analyses of the samples collected during the surveys to identify mineral occurrences.

B.5 Technical supervision of the work by a consulting engineer to ensure the quality of the products and the co-ordination of the different facets of this Component and the contractors carrying out the work.

B.6 Publication of maps in paper copy format for mass distribution of the results of the surveys.

Component C : "Development of an Environmental Management Capacity in the Mining Sector", with the following facets:

C.1 Execution of base line studies into the basic environmental conditions and the social and economic impact of mining activities, so as to increase basic knowledge about the environment pertaining to the mining sector and to develop appropriate environmental evaluation and control methods for Mauritania.

C.2 Implementation of an Environmental Information and Management System (EIMS) to assist in the administration of environmental procedures in the mining sector and to ensure the proper storage and retrieval of technical information.

C.3 Creation of institutional capacity for environmental control within the Department of Mines and Geology (DMG).

Work is in hand on all components of the PRISM programme and the main results which have thus far been obtained, two years after the commencement of the Project, are described in the brochures relating to each component.

Among the main results are: a) the modernisation of the legal and regulatory framework (a new mining law and regulatory texts as well as a standard agreement); b) institutional reform of the public mining sector; c) the creation of a functioning Mining Cadastre Unit, which has seen an increase in the number of mining companies which are operating in Mauritania, and a crystallisation of the interest of major mining companies such as Rio Tinto, De Beers (Anglo American plc) and BHP Billiton in the form of increased investment in exploration; d) the completion of the airborne geophysical survey over the Rgueibat Shield, with 371 000 line km of digital data already available, and; e) 35% of the geological survey of the northern zone of Mauritania already completed.

For further information, please contact: Unité de Coordination du Projet Minier (UCPM), Mr Samory Ould Soueidatt, Directeur du Projet, Boite Postale 4530, Nouakchott, Islamic Republic of Mauritania.
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ISLAMIC REPUBLIC OF MAURITANIA

Honor - Brotherhood - Justice

MINISTRY OF MINES AND INDUSTRY

NOTE ON MINING SECTOR

MINERAL RESOURCES OF MAURITANIA AT A GLANCE

1. Iron ore proved reserves at 1st January 2000

- Naturally rich ores	190 Million tons
. Kédia Idjill	90 Million tons
. M'Hawdatt	100 Million tons
- Ferruginous quartzites	660 Million tons
. Guelbs (Rhein, Arwagen & Merizet)	
Total	850 Million tons

There are also billions of tons of ferruginous quartzites in Tiris and Tasiast areas.

2. Copper ore (Moghrein Mine)	22.6 Million tons
3. Phosphates (Bofal-Loubboira)	160.0 Million tons
4. Gypsum (Ndrahamcha)	9.0 Billion tons
5. salt (Lekcheime)	450.0 Million tons
6. sulfur (Cuprit)	up to 1.0 Million tons
7. Peat	0.4 Million tons
8. Gold (Moghrein Mine)	30.0 metric tons

9. Dimension stones - many sites have been identified and will be developed shortly by a company, subsidiary to SNIM, named «Granites & Marbres de Mauritanie».

Various other potential minerals are under study and the main ones are Diamond, Gold, B.P.G.C (blend, pyrite, galena and chalcopryrite), chromite, rare earth minerals, black (heavy) sands, dolomite, limestones, dimension and semi-precious stones as well as hydrocarbons.

MINERAL BASED INDUSTRIES

- Iron ore production by SNIM in the Tiris Zemmour area up to 12 million Tons per year and will be raised to about 14 MTPY starting the year 2001 ;
- Rock and solar Salt industries under development by SOMISEL and SNIM ;
- Plaster plant run by SAMIA for gypsum treatment with an annual capacity of 100,000 Tons.
- Copper Mine at Akjoujt under developement by GEMAK.

INTRODUCTION

The Islamic Republic of Mauritania has a territory covering more than one Million square kilometers in area, lying between the Atlantic Ocean on the west and Mali in the east, whilst on its north are Western Sahara and Algeria and on its south Senegal and Mali (see appendix 1).

Mauritania is one of the rare young democracies in Africa with a President elected by direct universal suffrage and with a two –chambers Parliament (National Assembly and Senate).

Rich deposits of the good quality iron ore were discovered in the north at Kediat in the 50s, which were estimated to be about 200 million tons, minable by open pit.

A railway line to transport the iron ore was laid out from the Mineral Harbor of Nouadhibou to the mining town of Zouerate, 650 km (419 miles) away. The railroad was extended from Zouerate by 30 km in 1984 to the Guelb Rhein site and by 60 km in 1994 to M'Haoudatt site. The port has also been developed into the only deepwater port on the Sahara coastline, which can accommodate ships of up to 150,000 tons.

Production rose from 1.3 million tons in 1963 to 9 million tons in 1970 and is presently about 12 million tons per year.

The former company (MIFERMA) was nationalized in December, 1974. Peak production of 11.7 million tons was reached in 1975 and the company was renamed COMINOR (Complexe Minier du Nord) then SNIM (Société Nationale Industrielle et Minière) in 1978.

Mauritania harbors a significant potential of mineral resources, which for most require detailed studies and research.

Mining is very important for the national economy. The exploitation of iron-ore and copper played a major role up until the 1980s. This helped in particular employment and was a source of hard currency and made a well-known contribution to the GDP (12% in 1999). It also had various socio-economic spin-offs.

A geological map to the scale of 1/1 000 000 covers the whole of the national territory since 1968 and there are also more or less recent sectorial maps at various scales (1/500.000 et 1/200.000).

A - THE MINING SECTOR TODAY

A.1 - The mining sector and legal framework

The Ministry in charge of Mining has been working for developing the sector on a mining policy, which was adopted by the Government on March 1997. The Ministry ensures the application of mining regulations and coordinates all the activities in the mining sector throughout the country.

For this purpose the Ministry has a central department, the "Department of Mining and Geology". «The Mauritanian Office assists it for Geological Research", a survey office set up in 1980. The Office is in charge of promoting the research for solid mineral substances.

The Ministry supervises the activity of four public companies: the National Society for Industry and Mining (SNIM); the Arab Society for Metallurgical Industries (SAMIA), the Arab Society for Mining in Inchiri (SAMIN) and the Society of Guelb Moghrein in Akjoujt (GEMAK) respectively in charge of exploiting iron ore, gypsum, copper and Copper, gold and cobalt.

So as to ensure that mining can develop freely, the Ministry in charge of Mining constantly adjusts the legal framework. In this regard, a new mining law was adopted on 23rd June 1999.

This Mining Law took into account in particular the need for:

- providing a competitive, legal and fiscal framework fitting the investors;
- harmonizing and simplifying laws and procedures regulating the granting of mining titles;
- limiting to a reasonable number the mining titles that can be held by a single operator, so as to favor competition;
- setting up a sole fiscal and customs regulation for mining operations instead of the case by case negotiated conventions;
- stabilizing these fiscal and customs regulations over an acceptable period so as to make investment more profitable;
- promoting for investment in small scale mining operations meant to encourage the participation of the national private sector;
- introducing the payment of modest annual surface fees on prospecting Licenses, royalties and taxes on commercial and industrial profits.

A.2 - Geology

Mauritania covers an area of 1.085.000 km² and four main geological areas can be distinguished (cf. appendix 1). They are:

- 1 - the Atlantic sedimentary basin, of tertiary age to present, which is situated to the West of the country along the Atlantic coastline;
- 2 - the Mauritanide Caledonian-Hercynian Belt, situated on the East Side of the Atlantic basin;
- 3 - the pre-Cambrian crystalline shield which covers the north of the country;

- 4 - the infra-Cambrian sedimentary basin of Taoudeni which stretches from the Center over the whole of the eastern part of the country.

Numerous mineral and mining indicators are itemized through out the national territory.

The main concentrations of mineral indicators can be found on the axis of the Mauritanide Mountains and in the crystalline basement. These formations have large metallogenic potential. The mining in Zouerate and Akjoujt lead to the discovery of numerous indicators in surrounding areas.

A.3 - Mining

The situation in the mining sector as of 29 February 2000 is as follows (cf. appendix 2):

- two mining concessions for iron-ore (SNIM) and copper (GEMAK) in the Regueibatt ridge and the Mauritanide chain respectively;
- three mining licenses for iron ore in the Regueibatt ridge (SNIM), for salt in the coastal basin (SOMISEL) and for phosphates (SIPIA);
- four prospecting licenses for hydrocarbons under the form of Petroleum Sharing Contracts (PSC) with Australian and UK oil companies namely WOODSIDE, HARDMAN, BRITISH BORNEO and DANA PETROLEUM in the offshore of the Atlantic basin;
- thirty one prospecting licenses for gold and base metals (group 2) ;
- thirty two prospecting licenses for diamond (group 7);
- four prospecting licenses for various minerals (group 5) like salt, gypsum, kaolin and dimension stones ;
- three quarries mining permit for gypsum, clays and sand in the coastal basin.

Furthermore the Mauritanian Office for Geological Research (OMRG) has a permanent prospecting permit for all solid mineral substances on the whole national territory not covered by the prospecting licenses.

The OMRG is therefore working on following projects at the moment:

- Peat in the wilayas of Brakna and Trarza in the Atlantic basin;
- Gold of the Ouassat project at the North West of Regueibatt Ridge;
- Sulfur at Cuprit in the Atlantic basin.

The list of Mining operators in the country is at attachment 3

A.4 - The state of research - main mining and mineral indicators.

Among the numerous substances, which could be mined, a particular attention is to be paid to the following indicators:

1 - Phosphates

At Bofal-Loubboïra area, large reserves of good quality minerals and phosphates (160 million tons of which 21% P2O5) have been discovered. At the present time, a local operator named SIPIA is carrying out development studies.

2 - Peat

Several peat bogs are the object of an in-depth survey by the OMRG in the wilayas of Trarza and Brakna.

3 - Sulfur

The surveys of the Cuprit indicator in sebkha N'drahamcha, are being run by OMRG.

4 - Iron ore

In the basement rocks, the following formations can be generally found:

- . Tiris guelbs;
- . TASIAST formations;
- . Sfariat-Zednes guelbs.

5 - Copper

In addition to the known formations in the Moghreïn guelb, which are being developed by GEMAK, numerous indicators appeared further to the south in the Mauritanide Mountains (Moudjeria-Diaguily axis).

6 - Lead and Zinc

In the Regueibatt ridge, numerous lodes of blende, pyrite, galena and chalcopyrite (BPGC) are listed.

7 - Chrome

Chromite has been identified in the North and Central formations of the Mauritanide Mountains.

8 - Manganese

There are numerous indicators in the Regueibatt ridge and in the iron crusts (gossam) of various formations in the Mauritanide Mountains.

9 - Titanium and black sands

They are being found along the Atlantic coastline.

10 - Gold

It is in the form of native gold in the lodes of Conchita-Florence and TASIAST in the birrimian part of the Regueibatt ridge ; in the form of associated gold in the cupriferous formations of the Moghrein guelbs in the Inchiri alluvia, in the wadi khleijat and in Bou-Zraïbe and Ghabra. Numerous licenses are granted to different companies in The Rgueibat Shield and in Mauritanide Belt.

11 - Uranium

It was prospected in the Regueibatt ridge in particular near Bir-Moghrein where numerous indicators were reported in particular at Tenebdar and Tigsmat areas.

12 - Rare earths

They can be found in the Bou-Naga alkaline complex (Eastern Mauritanide chain).

13 - Beryllium and lithium

They are found in the Tasiast and Amsaga pegmatites.

14 - Salt

Its presence is known in Sebkhah d'Idjill, Trarza and Lekcheime (Sebkhah N'Drahamcha) brine pits. There is also a potential for rock and solar salt along the Atlantic coast.

15 - Diamond

There are also numerous licenses granted throughout the country and good results are being recorded (commercial size diamond grains and kimberlites).

16 - Dimension stones

« Granites et Marbres de Mauritanie » a subsidiary of SNIM is in charge of this project in the northern part of the country.

17 - Hydrocarbons

There are shows in the coastal sedimentary basin and the Taoudeni basin.

Promotional campaigns are being constantly undertaken. These campaigns are based on follow up reports including:

- An atlas containing all available data on both basins with main prospects already identified;
- The legal framework for the petroleum operations (production sharing

contracts) and various booklets on the oil potential in Mauritania.

These reports has been circulated to many oil companies and also distributed within EAPG and AAPG conferences.

This list is not exhaustive, other minerals are present in the country's diverse geological formations.

A.5 - Mines

There are the following mines actually being developed in Mauritania:

1 - Iron-ore

It was first mined in 1961 and is being mined at the moment by SNIM; thus to face the depletion of original mine sites of Kedia, SNIM launched in 1984 the Guelbs project (475 Millions tons of ferruginous quartzites at 37% Fe) and more recently the M'Hawdatt project (100 Millions tons of naturally rich ore -hematite).

2 - Copper

Since the discovery of the Moghreïn indicator in 1946, different companies (MICUMA and SOMIMA) have been interested in developing the mine.

Somima run the exploitation of the mine by the so-called TORCO process (Treatment of Refractory Copper Ores).

In 1981, the concession was transferred to SAMIN, but the activity at the mine developed very little.

In 1991, SAMIN entered into an association with Australian partner GGR and World Bank International Finance Corporation and recovered till early 1996 over 5 tons of gold from the tailings of the old mine and were also to bring up to date the feasibility study on the copper, gold and cobalt mine in Akjoujt. Presently, a new Joint venture (GMJV) is considering ways to reopen the mine site and was recently granted mining licenses in the surrounding areas in seek of increasing the potential.

3 - Gypsum

Between 1973 and 1978 it was mined by SNIM, and SAMIA took over from 1984 onwards. SAMIA was recently reinforced to increase its production of gypsum and its transformation into plaster for West African and European Union markets.

4 - Salt

Traditionally it was mined in the Trarza and Sebkhâ d'Idjill brine pits, at present time, industrial development is under course by SOMISEL at the Lekcheime brine pit.

B – Perspectives of development of the mining sector in Mauritania.

Beside the updating of the mining code, the World Bank assistance has also allowed to settle, recently (on April 1999) within the Ministry, a Unit for Mining Cadaster and it is the sole and unique responsible for the administration of the mining titles. So as to delineate precisely the perimeters of the mining titles (with error margin less than 1 meter) in the field, a nation wide geodesic network has been set up with 32 reference points, linked with each other and checked by GPS. This makes Mauritania to be the first in the Continent to have such a complete network (cf. appendix 4).

These developments resulting from the Department's endeavors should be encouraged and followed up to ensure a greater diversity in mining. In this respect, an important World Bank funded project is underway for mapping the whole country at bigger than present scale (1/500.000 and 1/200.000), for an airborne geophysical survey of the most metallogenic areas (Regueibatt Shield and Mauritanide Belt) and for setting up mining and geological GIS and Data-Rooms.

The actions for the development of the sector are as follow:

- Production of infrastructures and data bank through :
 - Establishment of geological maps at bigger scales (1/500.000 and 1/200.000) with airborne geophysics on areas with high metallogenic potential.
 - Updating of mineral plan
 - Building and equipment of documentation center with all available mining and geological data.
- Reinforcement of capacities for institutions in charge of the mining sector through :
 - Au Introduction of computer system for data management, collection and processing ;
 - Equipment with technical means for the needs of laboratory analyses, drilling and exploration activities.
- Updating the legal framework : Beside the decree on mining titles signed on 30th December 1999, the other application decrees of the law N° 99.013 related to the mining code will shortly be finalized and submitted to the approbation of the Government.

All these actions will be undertaken within the project fort institutional reinforcement of the mining sector whose loan agreement was adopted by law n° 99.015 of 8th July 1999.

CONCLUSION

The Islamic Republic of Mauritania, already known by the atmosphere of stability and democracy, has large potential mineral resources open to development in a mutually advantageous cooperation with any party willing to invest in the mining sector in the country.

Thus, the mining policy, already characterized by the openness to investors, goes hand in hand with the Department constant efforts to find ways and means to establish a coherent strategy for developing the sector.


The efforts of the Mauritanian Government toward to the settlement of infrastructures and improvement of the investment climate have led to encouraging results of the mining activity. In this respect, mining operators of various nationalities are working in Mauritania in full safety and confidence.

Based on its important mining potential, its attractive legal framework and its modern means for clear and transparent regulations of the mining titles, Mauritania welcomes all interested parties willing to invest in the mining sector of the country.

**ISLAMIC REPUBLIC OF MAURITANIA
MINISTRY OF MINES AND INDUSTRY
MAURITANIAN OFFICE FOR GEOLOGICAL EXPLORATION
O . M . R . G**

**GENERAL INFORMATION ABOUT MINES AND GEOLOGY IN
MAURITANIA**

August 1999



Mauritania is located in the west African coast and has an area about 1,085,000 km². It's bordered in the north by Algeria and Morocco, in the East by Mali, in the south by Senegal and in the west by the Atlantic Ocean .

Two third of the country have a desert climate and quite rare rains (100 mm/year).

According to the last census the Mauritanian population is 2,277,766 peoples, the majority of which are nomadic and small farmers.

The official language is Arabic. The National Languages are: Arabic, Pulaar, Soninke, and Wolof.

The Administrative languages are : Arabic and French.

I - An outline of the economic situation of the country

The economy of the Islamic Republic of is based on main three (3) sectors:

- The traditional sector (essentially stock-farming)
- The industrial sector (fishing and mining)
- The sector of services which is the most developed

The mining sector's contribution to the Gross Domestic Product (GDP) is between 13 and 15% , depending upon the period. From 19963 to 1975, iron ore and copper were the principal export from Mauritania and constituted, therefore, its principal source of foreign exchange.

Between 1975-1983, the economic situation of the country deteriorated substantially due to the recession in the mining sector.

In 1985 a convention between the Government and the IMF defined the terms of an economic boosting program scheduled for three (3) years.

During the period 1989-91, a program for consolidation and boosting was adopted to support the efforts made on the level of the above mentioned program .

Since 1991, Mauritania has fulfilled all its commitments vis a vis international financial institutions (World Bank, IMF, etc.....), and regained a sustained growth and could repay all it's fallen due debt.

Owing to an exemplary political stability in the sub-region, Mauritania could benefit from the strong support of all its economic partners (EEC, World Bank, IMF, the Arab Bank for Development , the Islamic Bank for Development, OPEC, etc...). All the financed projects were realised in excellent conditions.

II - THE MINING SECTOR IN MAURITANIA

From 1963 to 1980 the iron ore extracted from Zouerate mines constituted the main exportations of Mauritania as well as its main source of foreign currency. However, from 1980 , the sector became outdistanced by the fishing one.

II. 1 - Mines in Mauritania (sheet n° 1)

II.1.1 - Tiris iron

The mining sector, in Mauritania, has always been predominated by the exploitation of the Tiris's iron ore .

It's an exploitation that started in 1963 and whose total exportation from that date to the end of 1995, have reached 284 millions tons , the equivalent of US \$ 4.1 billions.

Iron ore is worked by SNIM (the Industrial and National Company) on three (3) mine sites :

- The Kedia d'Idjill, located near Zouerate city, mainly produces rich iron ore. It is the oldest site in the region.
- The Guelb Rhein which produces enriched iron ore,

- The Kedia of M'haoudat which is the most recent site and which produces rich iron ore.

In 1995, SNIM has produced and exported 11.05 millions tons of iron, thus placing Mauritania in the first rank of Arab and African countries producing and exporting iron ore.

II.1.2 - Copper and gold of Guelb Moghreïn mine (Akjoujt)

Guelb Moghreïn's ore has been, since 1971, worked for its copper by SOMIMA (Societe des Mines de Mauritanie).

SOMIMA only worked oxidised copper according to an original process called TORCO (Treatment of Refractory Copper Ore).

The mining was stopped in 1978 in consequence of the drop of the copper prices. From 1971 to 1978, SOMIMA produced 141 000 tons of concentrated copper, the equivalent of US \$ 100 millions.

The tailings of the TORCO's treatment, which represents 2,5 millions tons of ore at 3.5 gr/t Au, were worked from 1992 to 1996 by MORAK (Mines d'Or d'Akjoujt).

MORAK was owned by the following shareholders:

- SAMIN 45 %
- GGR 42.5 %
- SFI 12.5 %

MORAK has produced about 5 tons of gold.

After the completion of the tailing treatment , SAMIN and GGR established a new mining company called GEMAK for mining of the Cu-Au-Co ore body.

The reserves of Guelb Moghreïn ore body are estimated at :

- 452 000 tons of metal copper
- 1.1 millions once of gold
- 3800 tons of cobalt

II.1.3 - Salt exploitations

Salt exploitation is very ancient in Mauritania . It has been traditionally worked in sebkhas , the most important of which are:

- The sebkha of Idjill : is located near the mine city of Zouerate .Its reserves are estimated to 10 millions tons.
- N'Terert sebkha : is about 140 km south of Nouakchott .Its dimensions are more modest.

One should however, mention the discovery in 1992 of a large salt ore body at the N'Drahamcha sebkha , 120 km north of Nouakchott. Its reserves are more than one (1) billions tons of outcropped salt.

II.1.4 - Gypsum exploitation

An important gypsum ore body is now exploited near the N'Drahamcha sebkha , 150 km north of Nouakchott. Ore reserves are estimated to 4 billions tons of good quality outcropped gypsum.

That ore body, worked by SAMIA is destined to a plaster plant located at Nouakchott.

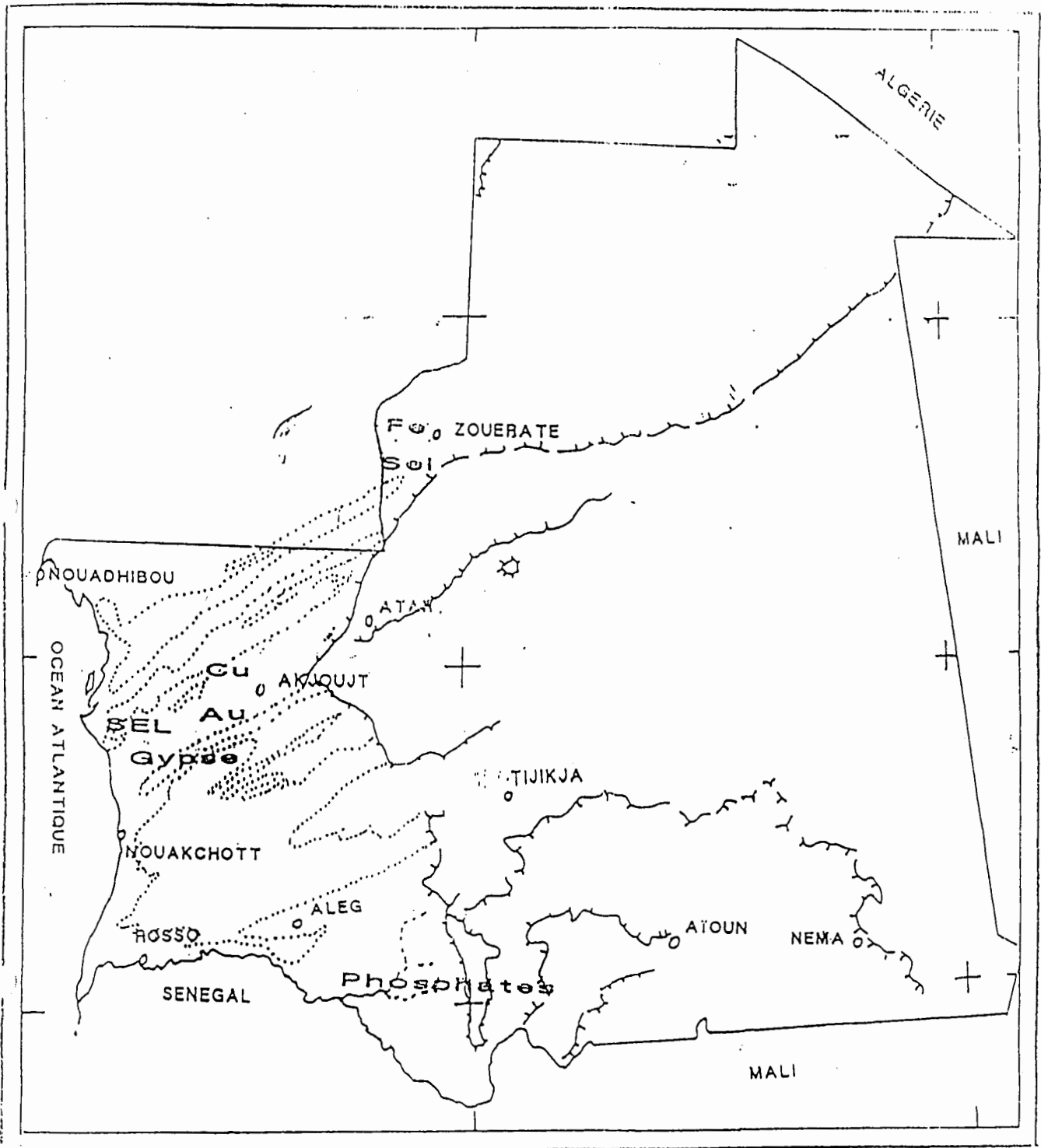
Recently, SNIM has bought State Mauritania's shares and taken up the company's management.

II.1.5 - The Phosphates

There is a good quality phosphate ore , at 300 km south-east of Nouakchott and at only 25 km from the Senegal river. Its reserves are estimated to 130 millions tons .

That ore is not yet mined , but it is under a feasibility study by the company MAOA, the greatest import of fertiliser in Mauritania.

Indeed a company was established to mine that ore body in favour of local use.



Sheet N° 1 : Mines in Mauritanie

- *Validity duration: Three (3) years, renewable twice for three (3) years every*
 - *time.*
 - *Fiscal and customs rights are totally exempted , a payment of a tax on*
 - *delivery, renewal and transfer.*
- With the support of the World Bank , a very large geological mapping program and air-mag survey will be executed next year in some area of the country .
- With the financing support of the European Union, the "Office Mauritanien de Recherches Geologiques " (OMRG) will launch a new exploration project for gold in Archean green stone belt located in the north of Mauritania.

III - PRESENTATION OF THE MAURITANIAN OFFICE FOR GEOLOGICAL EXPLORATION (OMRG)

With the goal of reactivating the mining sector, the government created the "Mauritanian Office for Geological Exploration" (OMRG) in 1980.

This office is the government operator in the field of mining exploration.

Experience has shown that only the State can finance the first step of mining exploration such as geological mapping , geophysical airborne survey, field reconnaissances, etc....

For this purpose, OMRG has a permanent licence for mining exploration for all the country and for all mineral substances except the hydrocarbons.

The main objective of OMRG is to promote optimal use of the country's mining potential, mainly through:

- the initiation of small-scale geological mapping projects,
- the implementation of small-scale mining exploration projects in areas which have mining potential
- values' assessment of known or recently discovered mining occurrences through detailed work like large scale geochemistry, geophysics, drilling, etc....

The ultimate goal of all the works implemented by OMRG is to make available to mining societies the most recent and complete geological and mining data of all the country.

III.1 - Organization and means of OMRG

The OMRG is depending on the Ministry of Industry and Mines and is managed by a board of directors headed by a high official of the State and comprises, besides, representatives of different ministries and mining companies (SNIM, SAMIA, SAMIN).

The board of directors draws up the general policy of the office with respect to the investment and the staff.

The internal organisation of the OMRG is made according to an organisational chart approved by the Ministry of Industry and Mines on the 14th April 1984 which is appended to this document.

Besides the general direction, the OMRG is divided into two (2) directions

- An administrative and financial direction : It is a functional direction with three (3) department :

the staff

the accountancy department

the administrative department

- A direction for technical studies : It is an operating direction that has three (3) important technical departments:

- A department of studies and geological and mining projects. It is in charge of the conception, the following up and the realisation of projects.
- A logistic department in charge of the maintenance of vehicles and drilling
- A library in charge of the management of the public and original documentation and all reports related to the activity of mining exploration.

The staff of the OMRG is now made up of 97 people among which :

- 12 geologists
- 02 chemists
- 07 prospectors
- 10 laboratory assistants
- 06 drillers

In this respect, it should be reminded that the majority of the projects initiated by the OMRG are conducted and realised by Mauritanian.

Technical assistance is generally required for short periods or for high valued specialisations.

OMRG had also adequate and appropriate material means to complete in good conditions, all mining exploration projects. Among the means available are:

- a mineral analysis laboratory; it allows for complete mineral analysis in response to project needs as well as petrographic and mineral analysis.
- drilling rigs consisting of two (2) Longyear rigs (type 24 and 34) capable of drilling depths of 100 and 300 meters respectively.
- geophysical and topographical equipment capable of responding to all requests for geophysical exploration, and particularly for radiometric, magnetic, electromagnetic, electric and gravimetric methods.
- truck fleet consisting of 4 WD trucks , lorries, fuel and water tanks, etc...

III. 2 - Projects completed by OMRG

With the goal of promoting the mining sector, the OMRG, since its inception , has initiated several mining exploration projects, including :

- The Copper and Gold Research project in the southern part of the Mauritanides Range .This multi-year project (1983-1991) was co-financed by the European Union and the Mauritanian Government. It was provided geological mapping scale 1/50 000 of this area and resulted in the discovery of several gold occurrences.

- Since 1988, OMRG initiated also a sulphur exploration project in Mauritania, the first step of which consisted of an exploration around a small occurrences located 60 km north of Nouakchott. With the support of UNDP financing, this project was continued and extended to cover the Atlantic Coastal Basin.
- In 1989, OMRG initiated a peat exploration project in the South-West of Mauritania, near the Senegal River. This project was fully financed by the Mauritanian Government. This project resulted in the discovery of numerous peat deposits. peats were put under testing in the removal of sand and carbonisation by EKONO, a finish mining company.
- In 1994-1996, a three years gold exploration project was carried out by OMRG in the Tasiast and the southern part of the Mauritanides Range. This project was jointly financed by Mauritanian Government and the European Union. The project has been completed in 1996 and the results are, in the aggregate positive, with the discovery in the Tasiast and the Tijirit of several gold anomalies located in Archean greenstone belt.
- In 1991, a joint venture (Groupement de Recherche de l'Inchiri) was created between OMRG, BRGM (France) and GGR (Australia) for exploration of gold and other mineral in the northern part of the Mauritanides Range (Inchiri area). Exploration started in 1992 and is actively going on after the discovery of new gold occurrences.

III. 3 - New projects by OMRG

There are new project prepared by OMRG and for which requests were prepared and sent to different financing source. These projects are :

- *Diamond exploration in the two Hodhs (East of Mauritania) :*
This project was initiated by the OMRG for research of diamond bearing pipes similar to those known in Mali. It was a test project for that substance which has never explored in this part of Mauritania. The project was submitted to the Islamic Bank for Development for its financing.
- *Gold exploration in the Ouassat-Sfariat region (Dorsale Reguibat):*

That project is conceived by OMRG for gold and base metal exploration in the Archean greenstone belt of the Dorsale Reguibat. (north Mauritania). That project will start next year with a financing of the European Union and the Mauritanian Government.

- *Gold exploration in the Ghallaman area (Dorsale Reguibat):*

This project was jointly conceived by OMRG and BRGM (France) for gold exploration in Archean granites of the Dorsale Reguibat .

It was submitted to the FAC (France) for its financing.

III. 4 - The financial resources of the OMRG

In accordance with article 7 of decree 84.202 dated September 1984, creating the OMRG, the latter one has, at its disposal , the following resources for reaching its goal:

- The State's subventions
- All other resources granted by the State
- The OMRG's own receipts from its activity
- Subventions, loans, gifts or legacies from private persons, national, international, private and public institutions.

Thus the OMRG was invested from 1981 to 1995, 1451.8 millions of Ouguiyas for the development of mining exploration in Mauritania. The amount corresponds to more than US \$ 10 000 000.

According to its statutes, the investment comes from several sources, the most important of which are:

- The Mauritanian State that provided the OMRG with 642 millions of Ouguiyas, 250 millions for the functioning of its office, 392 millions for the direct financing of projects in the framework of national counterparts.

Indeed in each exploration project financed by a foreign institution or a state, the Mauritanian Government brings its own contribution that may reach 50% of the total cost of the project.

The foreign contributions reached 810 millions Ouguiyas corresponding to 56% of the total amount.

IV - AN OUTLINE OF THE MAURITANIAN GEOLOGY

In Mauritania there are four (4) large structural units, of quite unequal surface. From the oldest to the newest, there are: (sheet n°4)

- The crystalline shield of the Dorsale Reguibat
- The Taoudeni's Basin and a small fringe of the Tindouf's Basin
- The Mauritanides Range
- The Atlantic Coastal Basin

IV.1 - The crystalline shield of the Dorsale Reguibat:

The northern part of Mauritania is mainly occupied by the Dorsale Reguibat shield that develops into a large scarf from the Tasiast and Amsaga to the Eglabs in the north-east in Algeria.

In fact, that represents only a small part of a large crystalline unit made up with the West African Craton which takes up an important place in the whole structure of the west African geology.

This old basement is very metamorphosed and fractured. It dates back to the precambrien C and D (2.6 to 1.6 billions years). It offers a nice range of eruptive, metamorphic and sedimentary rocks largely dominated by granites.

These antecambrien formations are skimmed over and partly recovered by more recent deposits such as reg, dunes, sebkhas and hamadas.

IV.2 - The Taoudeni Basin :

The Taoudeni sedimentary basin extends over the half surface of the country. It develops in the north-east in Algeria, in the east in Mali and to the south, an apophysis of the basin constitutes an eastern part of the Senegalese and of Guinea's plateaus.

This basin is made up with sedimentary deposits, largely constituted with continental carboniferous sandstone of the infra-Cambrian and Paleozoic period and whose thickness may reach or even go beyond 5000 m.

These sedimentary series are usually crossed by mafic rocks of the Paleozoic period, which indicates the existence of a fissured volcanism.

These volcanic manifestations mainly represented by dolerites are like dykes, sills, etc ..in the Hank, the Adrar and the Hodhs.

IV. 3 - The Mauritanides Ranges

It is a chain that borders the Taoudeni's Basin from the west and which is a curved area of north-south general orientation that extends from the meridional extremity of the crystalline basement to the Senegal River.

This Chain is constituted with volcanic, metamorphic, sedimentary and volcano-sedimentary rocks that date back to the cambrian and cambro-ordovician period and that are influenced by three (3) main folding phases.

IV.4 - The Atlantic Coastal Basin

It is a sedimentary north-south oriented basin whose terrestrial part leans, in the east on the Mauritanides Range and whose maximal extension is offshore on the present continental platform and talus . To the south the basin continues and becomes wider in the Senegal.

The basin originates from a rift filled with sediments, the majority of which is of the tertiary and the secondary periods and whose thickness can be more than 4000 m. At the surface and all along the basin, the tertiary and secondary formations are greatly masked by deposits of the continental terminal in the East, by the quaternary and sub-present deposits in the west.