

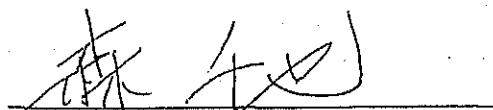
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1. Scope of Work
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3. ラオス国からの要請書
4. ラオス国の環境関連法規の規定内容

SCOPE OF WORKS
FOR
THE GEOLOGICAL MAPPING AND MINERAL INFORMATION
SERVICE PROJECT FOR THE PROMOTION OF THE MINING
INDUSTRY IN THE LAO PEOPLE'S DEMOCRATIC REPUBLIC

AGREED UPON BETWEEN THE DEPARTMENT OF GEOLOGY AND
MINES, THE MINISTRY OF INDUSTRY AND HANDICRAFT
AND
THE JAPAN INTERNATIONAL COOPERATION AGENCY

Vientiane
25 January, 2006



Mr. Senya MORI
Resident Representative
Japan International Cooperation Agency
Laos Office



Mr. Thonphat INTHAVONG
Director General
Department of Geology and Mines
Ministry of Industry and Handicrafts

1. Introduction

In response to the request of the Government of the Lao PDR, the Government of Japan has decided to conduct the Study in accordance with the relevant laws and regulations in force in Japan.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the technical cooperation programs of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned in the Lao People's Democratic Republic (hereinafter referred to as "the Lao PDR").

2. Objectives of the Study

The main objective of the Study is to develop the capability to conduct geological and mineral resources mapping and to compile data and information related to mineral resources in order to promote the mining industry in the Lao PDR. The major objectives of the Study are as follows:

- ✓ To revise the 1: 1,000,000 geological map and the mineral resource map of the whole country.
- ✓ To make 1: 200,000 geological sheet maps and undertake mineral resource assessments of areas of high potential.
- ✓ To construct and publish the GIS-based mineral information system.
- ✓ To develop the capacity of personnel necessary for above mentioned activities.

3. Study Area

The Study covers the whole area of the Lao PDR.

4. Scope of the Study

The study will consist of the following five (5) components:

- 1) A review and analysis of the available data, information and documents related to mineral resources for the compilation of geological maps and the construction of a GIS-based database, including:
 - Geological information and exploitation and exploration reports.
 - Remote sensing information.
 - Infrastructure and environmental information.
- 2) Compilation of 1:1,000,000 geological and mineral resource maps.
 - Compilation of 1:1,000,000 geological maps, based on the available geological data and from additional supplementary field surveys.
 - ✧ These will be based on 1:200,000 geological maps, 1:100,000 UNDP geological map, 1:250,000 Enterprise Oil Co. map and 1:100,000

Monument Oil Co., published reports as well as other sources of information.

- ◇ Structural interpretation of the SAR radar image.
 - ◇ Tectonic interpretation of geology.
 - Compilation of mineral resources data, based on the available data and the principle mineral deposits study.
 - ◇ Prospecting and exploration reports by the private and public mining sectors.
 - ◇ Study of principle mineral deposits to comprehend deposit geneses and metallogenic interpretation.
- 3) Compilation of 1:200,000 geological sheet mapping based on the results of the geological survey and the mineral potential survey.
- Selection of the area for geological mapping, as it will be conducted in either Ban Phu Viang district or in Attapeu district.
The Lao Team will decide the area for geological mapping.
 - 1:200,000 geological mapping.
 - Stratigraphic, petrographic, petrologic and geochronologic studies.
 - 1:10,000 geologic mapping, mineralogical and geochemical studies of the mineral occurrences.
 - ◇ 1:10,000 maps of mineral occurrences with a description of the type, style, structure, mineralogy (ore, gangue, alteration), and geochemistry of mineralized areas.
- 4) Construction of a GIS-based mineral information system, including:
- Major rivers, mountains, national and province boundaries, cities and towns.
 - Nature preservation areas and military reservation areas.
 - Geological maps.
 - Mineral resources dataset:
 - ◇ Name, location, commodity, type, style, structure, mineralogy, geochronology, geochemistry (and/or reserves) of deposits, prospects and occurrences with references.
 - ◇ Drill hole dataset.
 - ◇ Geophysical prospecting dataset.
 - UXO information.
- 5) Data dissemination to the public to promote mineral investment.
- Publish geological and mineral resources maps.
 - Upload mineral information onto the web site.

- Organize investment promotion seminars/workshops at international mining conferences. Seminar/Workshop topics will be discussed between the JICA Study Team and the Lao Team.

5. Study Schedule

The Study will be conducted in accordance with the Tentative Work Schedule shown in Appendix I.

6. Steering Committee

DGM will set up a steering committee under the chairpersonship of DGM for ensuring the smooth implementation and coordination of the Study. The committee members will be composed of, but not limited to, representatives of related organizations, such as:

- DGM
- Ministry of Industry and Handicraft

Responsibilities of the steering committee members are as follows:

- a. DGM, as the leading counterpart, will engage in overall coordination for the Study.
- b. Other members, as the collaborating counterparts, will offer necessary advice and support for the smooth and effective implementation of the Study.

7. Report

JICA shall prepare and submit the following quantity of reports to the Department of Geology and Mines (hereinafter referred to as "DGM").

- | | |
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| 1) Inception report (Ic/R) in English | 20 copies |
| 2) Progress reports (Pr/R) in English | 20 copies |
| 3) Interim report (It/R) in English | 20 copies |
| 4) Draft final report (Df/R) in English | 20 copies |
| DGM will provide JICA with the comments on the Draft Final Report within one month after its receipt. | |
| 5) Final report (F/R) in English | 20 copies |

8. Division of Technical Undertakings

The division of technical undertakings of the Study by JICA and DGM is detailed in Appendix II attached herewith.

9. Undertakings of the Government of the Lao PDR

(1) In order to facilitate the smooth management and execution of the Study, DGM shall take the following necessary measures:

- 1) Permit the members of the Study Team to enter, leave and sojourn in the Lao PDR during their assignment therein, and exempt them from foreign registration

requirements and consular fees;

- 2) Exempt the members of the Study Team from taxes, duties and any other charges on equipment, machinery and other materials brought into the Lao PDR in order to conduct the Study and to secure the safety of the Study Team;
 - 3) Exempt the members of the Study Team from income tax and other charges of any kind imposed on them or in connection with any emoluments or allowances paid to the members of the Study Team for their services in connection with the implementation of the Study;
 - 4) Provide the necessary facilities to the Study Team for remittance as well as the utilization of the funds introduced into the Lao PDR from Japan in connection with the implementation of the Study; and
 - 5) To secure permission for the Study Team to take all the data and documents (including permitted photographs and maps) related to the Study out of the Lao PDR to Japan.
- (2) DGM shall bear claims, if any arise, against the members of the Study Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Study Team.
 - (3) DGM shall act as the counterpart agency to the Study Team and also as the coordinating body in relation to other governmental and non-governmental organizations concerned with the smooth implementation of the Study.
 - (4) DGM shall take full responsibility for the implementation of the study. DGM shall, at its own expense, provide the Study Team with the following, in cooperation with other relevant organizations:
 - 1) Security related information on, as well as measures to ensure the safety of the Study Team;
 - 2) Information on, as well as support in obtaining medical services;
 - 3) Available data and information necessary for the Study;
 - 4) Counterpart personnel;
 - 5) Suitable office space with necessary equipment and facilities in the Lao PDR;
 - 6) Credentials or identification cards;
 - 7) Communication facilities such as telephones, facsimile, etc. if necessary; and
 - 8) Administrative and technical support staff and labor as needed.

10. Others

JICA and DGM shall consult with each other in respect of any matter that may arise from, or is in connection with, the Study.

Study Schedule

	2008																																			
	2007										2006										2005															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						
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4) Construction of a GIS-based mineral information system																																				
5) Data dissemination to the public for mineral investment promotion																																				

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Outline of Division of Technical Undertaking

	JICA Undertaking	DGM Undertaking
1) To review and analyze the available data, information and documents related to mineral resources for the compilation of geological map and construction of GIS-based database	Technical assistance for data collection and analysis	Data collection and analysis
2) Compilation of 1:1,000,000 geological and mineral resources maps	Technical assistance for mapping of geology and mineral resource	Mapping of geology and mineral resource
3) 1:200,000 geological sheet mapping based on the result of geological survey and mineral potential survey	Technical assistance for mapping of geology and mineral resource	Mapping of geology and mineral resource Draw geological maps
4) Construction of a GIS-based mineral information system	Design the database related to mining sector	Data input and revision of the database related to mining sector
5) Data dissemination to the public for mineral investment promotion	Design of the mineral resources website and assistance for seminars/workshops	Production of information and maintenance of website and presentation at seminars/workshops

**MINUTES OF MEETING
FOR
THE PROJECT FORMULATION STUDY
ON
GEOLOGICAL MAPPING AND MINERAL INFORMATION SERVICE
PROJECT
FOR PROMOTION OF MINING INDUSTRY
IN LAO PEOPLE'S DEMOCRATIC REPUBLIC**

November 30th, 2005
Vientiane, Lao People's Democratic Republic

The Project Formulation Study Team on Geological Mapping and Mineral Information Service Project for promotion of mining industry in Lao People's Democratic Republic (hereinafter referred to as "the Japanese Team") organized by the Japan International Cooperation Agency (hereinafter referred to as the "JICA") and headed by Mr. Koji NAKUI, visited the Lao People's Democratic Republic (hereinafter referred to as "Lao PDR") from November 21st to December 1st, 2005.

During its stay in Lao PDR, the Japanese Team had a series of discussions and exchanged views on Geological Mapping and Mineral Information Service Project for Promotion of Mining Industry (hereinafter referred to as "the Study") with the officials of the Department of Geology and Mines, Ministry of Industry and Handicraft and other relevant agencies of the Government of Lao PDR (hereinafter referred to as "the Lao Team").

Discussions were conducted in a friendly and cordial atmosphere and both the Teams agreed to record the following points as summarized conclusions of the discussions.



Mr. Koji NAKUI
Leader
Project Formulation Team
Japan International Cooperation Agency



Mr. Thongphat INTHAVONG
Director General
Department of Geology and Mines
Ministry of Industry and Handicraft

1. Confirmation of Current Situation and Facts

The Japanese Team confirmed the following facts

(1) Current Situation of Mining Sector in Lao PDR

Lao PDR has been known to have a high potential for mineral resources including gold, copper, lead, zinc, iron ore, tin and gemstones. The mining industry in Lao PDR can be an important source to obtain foreign currency as well as electricity by hydropower, and thus would contribute to poverty reduction of the country. Therefore the Government of Lao P.D.R desires to promote the mining sector by attracting mineral investments. At present, the number of foreign and domestic private companies which are doing exploration and exploitation in Lao PDR is increasing as metal prices in the world have increased.

In this environment, the Government of Lao PDR wishes to cooperate with the Government of Japan to prepare a master plan in order to promote the mining sector in Lao PDR.

(2) Reasons for the Promotion of the Mining Sector

Although Department of Geology and Mines (hereinafter referred to as "DGM") has been collecting various kinds of geological data and mineral resources information, DGM has not been systematically compiling these kinds of data since 1991. Moreover, 1:200,000 geological maps including mineral resources assessments only cover one-third of the whole country. Therefore DGM has difficulty in grasping the reserve of mineral resources in this country exactly and publishing these kinds of data and information. DGM realizes that the management of relevant information and geological mapping are very important and to publish the information is one of the most effective means to attract private companies.

In addition, the legal system for private companies to invest mining industry in this country has not established completely.

(3) Feasibility of the Study

DGM has responsibilities related to mining sector in Lao PDR including geological mapping and mineral investigation, concession of mining title, reviewing mining law, management of mineral resources information and inspection of mining activities. DGM is expected to enhance the capability in order to respond to enlarging mining activities.

The Japanese Team and the Lao Team agreed that geological mapping and compiling relevant information have the highest priority and the Study should focus on them.

2. Outline of the Study (see in ANNEX - 1)

The Japanese Team and the Lao Team discussed and drafted an outline of the Study. Both the Teams shared ideas on the tentative Scope of Work of the Study and agreed with following points

(1) Title of the Study

Ku
Muo

Geological Mapping and Mineral Information Service Project for Promotion of Mining Industry in Lao People's Democratic Republic

(2) Objective of the Study

The main objective of the Study is to develop the capability to conduct geological and mineral resources mapping and to compile data and information related to mineral resources in order to promote the mining industry in Lao PDR. Major objectives of the Study are as follows;

- ✓ To revise the 1: 1,000,000 geological map and mineral resources map of the whole country.
- ✓ To make 1: 200,000 geological sheet maps and undertake mineral resources assessments of high potential areas.
- ✓ To construct and publish the GIS-based mineral information system.
- ✓ To develop the personnel capacities necessary for above mentioned activities.

(3) Area to be covered by the Study

The Study covers the whole area of the Lao PDR.

(4) Tentative Scope of Work

1) To review and analyze the available data, information and documents related to mineral resources for the compilation of geological map and construction of GIS-based database

- Geological information and exploitation and exploration reports.
- Remote sensing information
- Infrastructure and environment information

2) Compilation of 1:1,000,000 geological and mineral resources maps

- Compilation of 1:1,000,000 geological map, based on the available geological data and supplementary field survey
 - ◆ 1:200,000 geological maps, 1:100,000 UNDP geological map, 1:250,000 Enterprise Oil Co. map and 1:100,000 Monument Oil Co., published reports, etc.
 - ◆ Structural interpretation of SAR radar image
 - ◆ Tectonic interpretation of geology
- Compilation of mineral resources data, based on the available data and principle mineral deposits study
 - ◆ Prospection and exploration reports by private and public mining sectors
 - ◆ Study of principle mineral deposits to understand deposit geneses and metallogenic interpretation

3) 1:200,000 geological sheet mapping based on the result of geological survey and mineral potential survey

- Selection of the area for geological mapping (one area)

Geological mapping will be conducted in one of the following two areas.

- B. Phu Viang area
- Attapeu area

- The Lao Team will decide the area
- 1:200,000 geological mapping
 - Stratigraphic, petrographic, petrologic and geochronologic studies
 - 1:10,000 geologic mapping, mineralogical and geochemical studies of the mineral occurrences
 - ✧ 1:10,000 maps of mineral occurrences with description of type, style, structure, mineralogy (ore, gangue, alteration), and geochemistry of mineralized areas
- 4) Construction of a GIS-based mineral information system
- Major rivers, mountains, national and province boundaries, cities and towns
 - Nature preservation areas and military reservation areas
 - Geological maps
 - Mineral resources dataset
 - ✧ Name, location, commodity, type, style, structure, mineralogy, geochronology, geochemistry (and/or reserves) of deposits, prospects and occurrences with references
 - ✧ Drill hole dataset
 - ✧ Geophysical prospecting dataset
 - UXO information
- 5) Data dissemination to the public for mineral investment promotion
- Publishing geological and mineral resources maps
 - Uploading the mineral information on the web
 - Organizing investment promotion seminars/workshops at international mining conferences. Seminar/Workshop topics will be discussed between JICA Study Team and the Lao Team.
- (5) Output of the Study
- 1:1,000,000 geological map with 1:3,000,000 tectonic division map of Laos with explanatory text that describes tectonic division, lithofacies, stratigraphy, and geological structures
 - 1:1,000,000 mineral resources map of Laos with explanatory text that describes metallogenic provinces, names, locations, commodities, types and reserves of deposits, prospects and occurrences
 - 1:200,000 geological map of the surveyed area with explanatory text that describes lithofacies, stratigraphy, and geological structures
 - 1:10,000 geologic map of prospective mineral occurrences with explanatory text that describes type, style, structure, mineralogy (ore, gangue, alteration), and geochemistry of mineralized areas
 - GIS-based mineral information system, including
 - ✧ Major infrastructures, rivers, boundaries, cities and towns
 - ✧ Newly compiled 1:1,000,000 geological and mineral resources maps and available 1:200,000 geological maps
 - ✧ Mineral resources datasets (name, location, commodity, type, shape, reserves, host rock, age if available, ore mineralogy, gangue mineralogy,

- alteration mineralogy and ore grade of each deposit)
- ◇ Interpretation of SAR radar images
- ◇ Map of concession areas
- ◇ Relevant laws and regulations
- ◇ Procedures to obtain licenses for prospection, exploration and exploitation
- ◇ Introduction of DGM
- ◇ Other data including explanatory texts
- The capacity of Lao personnel on conducting of geological and mineral mapping and compiling mineral data will be strengthened.

(6) The Study term

The Study term will be for approximately 30 months.

(7) Counterpart Organization

DGM is the lead implementing agency for the Study. DGM will organize the Steering Committee and appoint the appropriate personnel for the Study by the commencement of the Study. The organization chart is attached as ANNEX - 2.

(8) Tentative TOR of Member of the Study Team

- ✓ Leader / Compile relevant Information
- ✓ Geologist A / Geological mapping
- ✓ Geologist B / Mineral assessment
- ✓ GIS and web-site designer / GIS and web-site design
- ✓ Geochemist / Chemical analysis

The Lao Team expressed a desire JICA to dispatch experts in some special fields of geoscience supplementarily (e.g. petrologist, remote sensing experts).

(9) Tentative personnel assigned from DGM

- ✓ Library staff and mineral information staff (2)
- ✓ Mapping geologist and assistant geologist (5)
- ✓ GIS staff (3)
- ✓ Geochemist (1)
- ✓ Petrographer (1)
- ✓ Mineralogist (1)

3. Treatment of equipment in the Study

The Japanese Team explained that any equipment cannot be purchased in the Study. The Lao Team recognized this.

4. Expected Procedures and Steps for Implementation of the Study

The Japanese Team explained that final decision on the Study implementation would be subject to relevant reviews by JICA and consultation with concerned officials in the Government of Japan (hereinafter referred to as "GOJ"). After the favorable decision made by GOJ, JICA Lao Office and the Lao Team shall sign the

(Handwritten initials)

Scope of Work.

5. Steering Committee

DGM will set up a steering committee under the chairpersonship of DGM for ensuring the smooth implementation and coordination of the Study. The committee members will be composed of, but not limited to, representatives of related organizations, such as:

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Responsibilities of the steering committee members are as follows:

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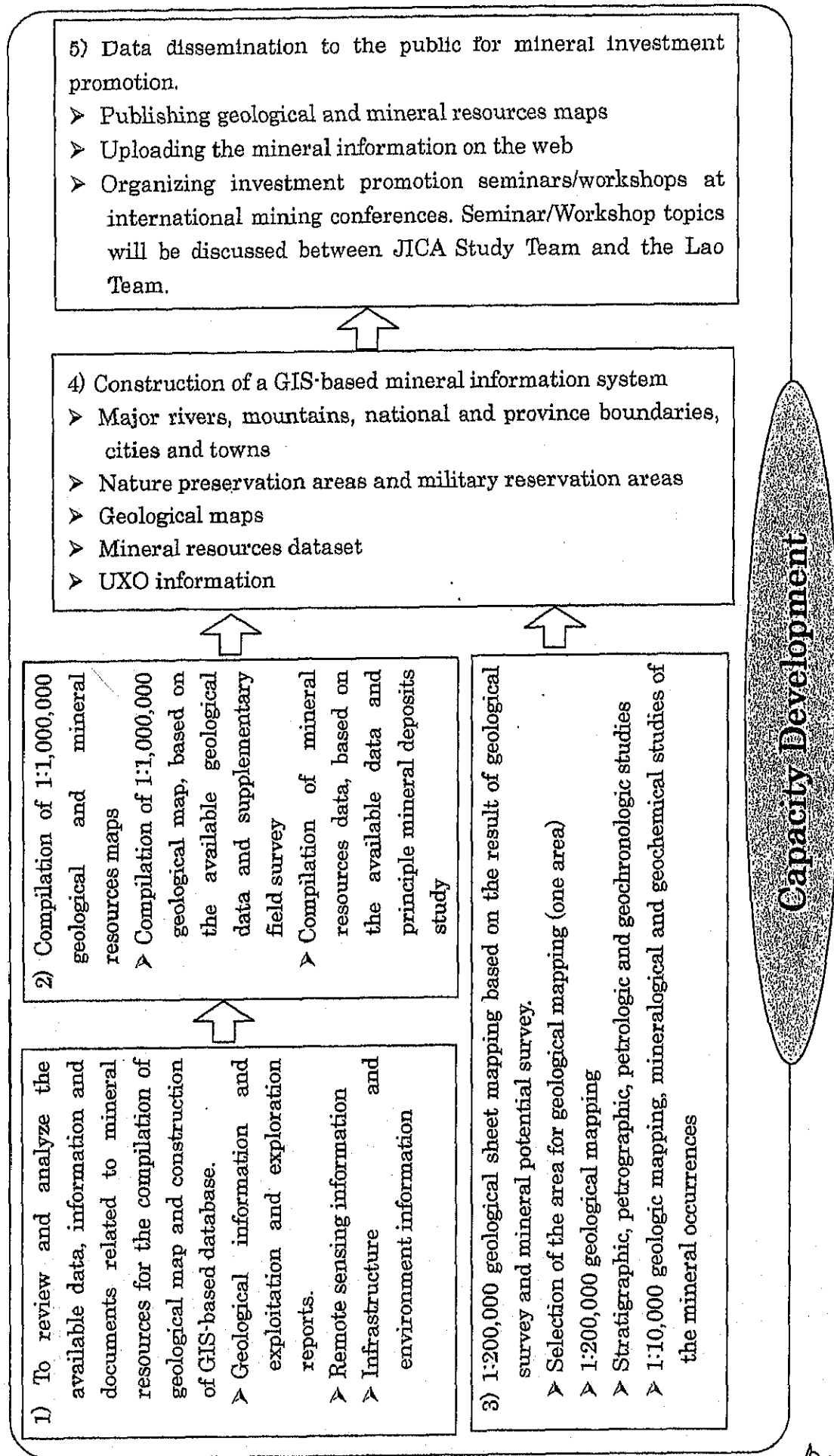
ANNEX LIST

ANNEX - 1	Outline of the Study
ANNEX - 2	Organization Chart of Department of Geology and Mines
ANNEX - 3	Organization Chart of Ministry of Industry and Handicraft
ANNEX - 4	Draft Scope of Work

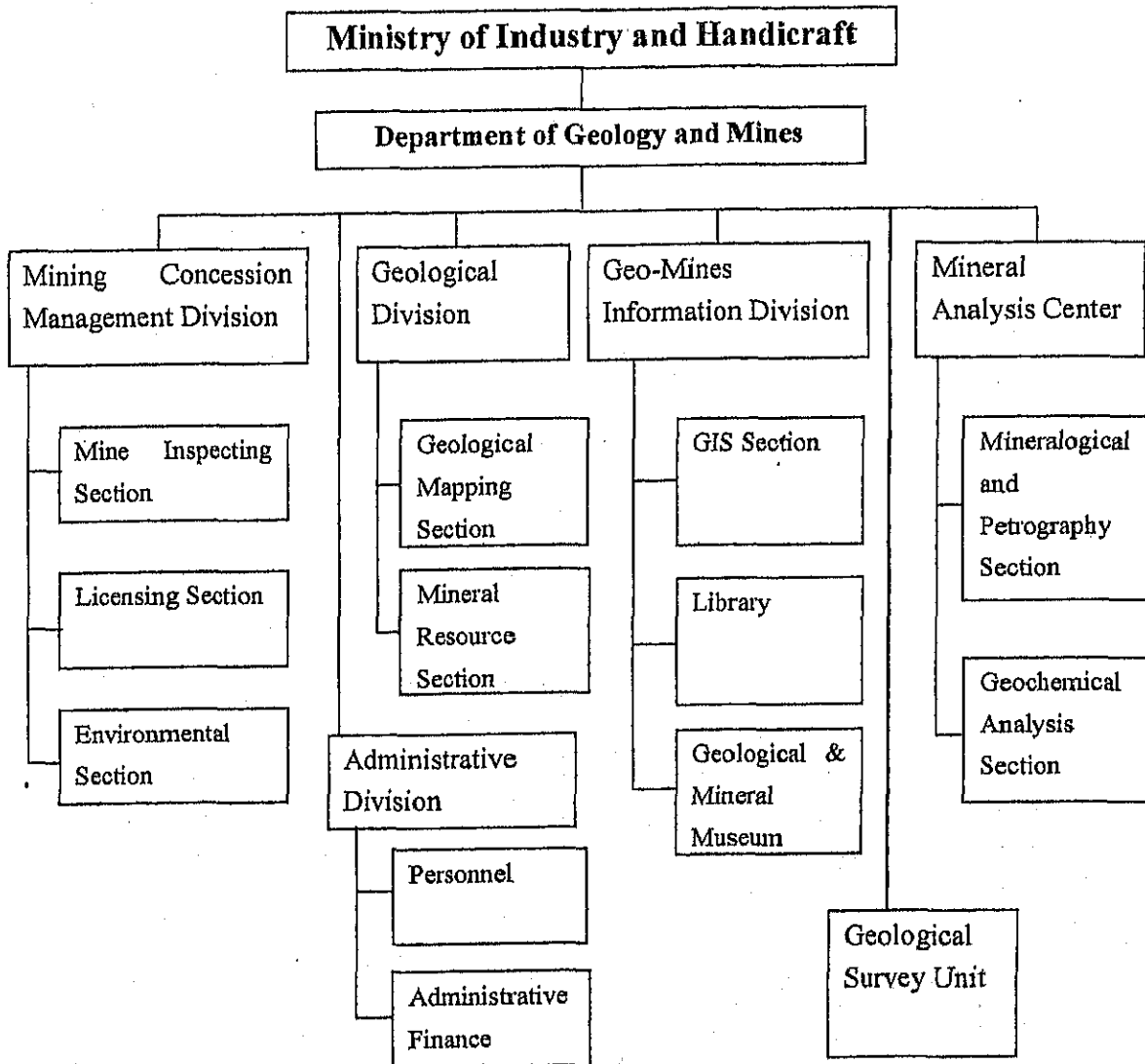
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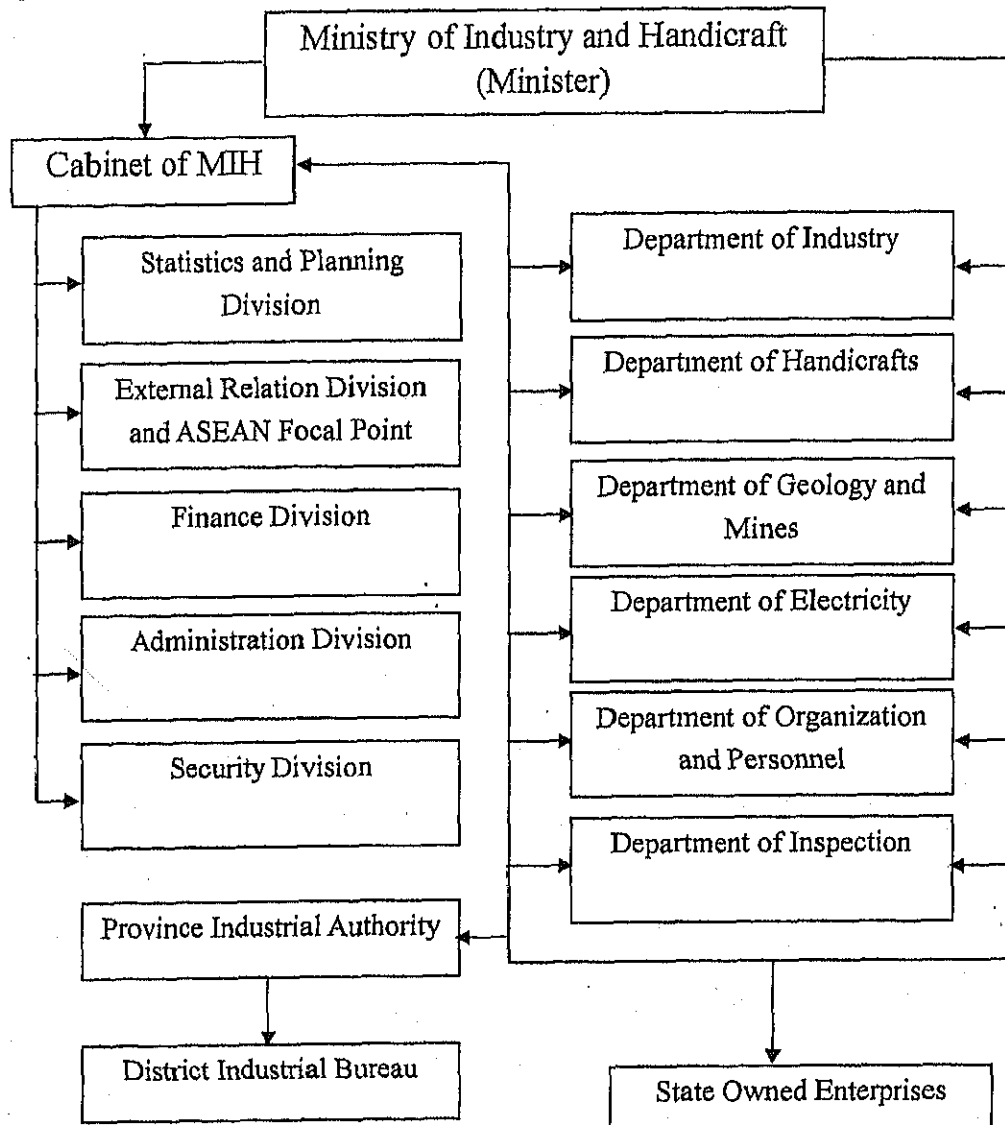
Outline of the Study



Organization Chart of Department of Geology and Mines



Organization Chart of Ministry of Industry and Handicraft



Number of Officers and specific types of Industrial statistical assigned to each division

Departments	Number Overall	Number Specific Statistic	Note
Cabinet Office of MIH	32	6	
Industrial Processing Dpt	29	1	
Handicraft Dpt	24	1	
Electricity Dpt	30	1	
Geology and Mines Dpr	68	2	
Personnel Organization Dpt	11	1	
General Inspection Dpt	6	1	
Province Industrial Bureau	354	32	

DRAFT SCOPE OF WORK

FOR

GEOLOGICAL MAPPING AND MINERAL INFORMATION SERVICE

PROJECT FOR PROMOTION OF MINING INDUSTRY


IN LAO PEOPLE'S DEMOCRATIC REPUBLIC

AGREE UPON BETWEEN DEPARTMENT OF GEOLOGY AND MINES,

MINISTRY OF INDUSTRY AND HANDICRAFT

Vientiane
XX XX, 2005

Mr. Senya MORI
Resident Representative
Laos Office
Japan International Cooperation Agency


Mr. Thonphat INTHAVONG
Director of General
Department of Geology and Mines
Ministry of Industry and Handicraft

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4. Scope of the Study

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 - ◇ Geophysical prospecting dataset
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- 5) Data dissemination to the public for mineral investment promotion
- Publishing geological and mineral resources maps
 - Uploading the mineral information on the web
 - Organizing investment promotion seminars/workshops at international

mining conferences. Seminar/Workshop topics will be discussed between JICA Study Team and the Lao Team.

5. Study Schedule

The Study will be conducted in accordance with Tentative Work Schedule shown in Appendix I.

6. Report

JICA shall prepare and submit the following quantity of reports to Department of Geology and Mines (hereinafter referred to as "DGM").

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| 2) Progress reports (Pr/R) in English | 20 copies |
| 3) Interim report (It/R) in English | 20 copies |
| 4) Draft final report (Df/R) in English | 20 copies |
| DGM will provide JICA with the comments on the Draft Final Report within one month after its reception. | |
| 5) Final report (F/R) in English | 20 copies |

7. Division of Technical Undertaking

The division of technical undertakings of the Study by JICA and DGM is detailed in Appendix II attached herewith.

8. Undertaking of the Government of Lao PDR

(1) To facilitate smooth conduct of the Study, DGM shall take necessary measures for the following:

- 1) To permit the members of the Study Team to enter, leave and sojourn in Lao PDR during their assignment therein, and exempt them from foreign registration requirements and consular fees;
- 2) To exempt the members of the Study Team from taxes, duties and any other charges on equipment, machinery and other materials brought into Lao PDR for the conduct of the Study to secure the safety of the Study Team;
- 3) To exempt the members of the Study Team from income tax and other charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Study Team for their services in connection with the implementation of the Study;
- 4) To provide necessary facilities to the Study Team for remittance as well as utilization of the funds introduced into Lao PDR from Japan in connection with the implementation

of the Study; and

- 5) To secure permission for the Study Team to take all the data and documents (including permitted photographs and maps) related to the Study out of Lao PDR to Japan.
- (2) DGM shall bear claims, if any arises, against the members of the Study Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Study Team.
- (3) DGM shall act as the counterpart agency to the Study Team and also as the coordinating body in relation to other governmental and non-governmental organizations concerned for the smooth implementation of the Study.
- (4) DGM shall take full responsibility for the implementation of the study. DGM shall, at its own expense, provide the Study Team with the following, in cooperation with other relevant organizations:
 - 1) Security related information on as well as measures to ensure the safety of the Study Team;
 - 2) Information on as well as support in obtaining medical services;
 - 3) Available data and information necessary for the Study;
 - 4) Counterpart personnel;
 - 5) Suitable office space with necessary equipment and facilities in Lao PDR;
 - 6) Credentials or identification cards;
 - 7) Communication facilities such as telephone, facsimile, etc. if necessary; and
 - 8) *Administrative and technical support staff and labor as needed.*

9. Others

JICA and DGM shall consult with each other in respect of any matter that may arise from or in connection with the Study.

Study Schedule

	2006								2007								2008																															
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8																
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																									Workshop in Lao								International Seminar															

KE

Outline of Division of Technical Undertaking

	JICA Undertaking	DGM Undertaking
1) To review and analyze the available data, information and documents related to mineral resources for the compilation of geological map and construction of GIS-based database	Technical assistance for data collection and analysis	Data collection and analysis
2) Compilation of 1:1,000,000 geological and mineral resources maps	Technical assistance for mapping of geology and mineral resource	Mapping of geology and mineral resource
3) 1:200,000 geological sheet mapping based on the result of geological survey and mineral potential survey	Technical assistance for mapping of geology and mineral resource	Mapping of geology and mineral resource Draw geological maps
4) Construction of a GIS-based mineral information system	Design the database related to mining sector	Data input and revision of the database related to mining sector
5) Data dissemination to the public for mineral investment promotion	Design of the mineral resources website and assistance for seminars/workshops	Production of information and maintenance of website and presentation at seminars/workshops

Handwritten marks/signatures

3. ラオス国からの要請書

(申請用) ラオス鉱業分野投資促進のための情報提供・
法制度改善支援プロジェクト

Application Form for a Development Study of JICA of Japan
From the Lao People's Democratic Republic
Study for Master Plan for Promotion of the Mining Industry
of the Lao People's Democratic Republic

Date of application: May 2004

Applicant: The Government of the Lao People's Democratic Republic
Ministry of Industry and Handicrafts

I. Project Outline

1. Name of Project

Study for Master Plan for Promotion of the Mining Industry of the Lao People's Democratic Republic

2. Locality

Whole country of the Lao People's Democratic Republic

3. Implementing Organization

a. Implementing organization

Steering Committee (to be established), Ministry of Industry and Handicrafts
(Department of Geology and Mines (DGM))

b. Number of staff for this project

Deputy Minister	1
Specialists (state experts)	7
Assistants for implementation	8

The Steering Committee provides a working team composed of the Ministry of Industry and Handicrafts, Ministry of Foreign Affairs and Committee for Planning and Cooperation, etc. for participants as needed.

c. The organization of the Ministry of Industry and Handicraft is represented in Appendix 1.

4. Reasons for Project Request

The Lao People's Democratic Republic is moving from a planned economy to a free economy. Free economy in the Lao PDR is a "State management market economy". At present the important theme for the Lao People's Democratic Republic is the reduction of poverty. The Government of the Lao PDR has a long-term plan for the realization of a reduction of poverty until 2020. For this

cause, it is needed to promote the development of the economy by the promotion of industry. Now the GDP per capita is below \$300. The variety of industries is poor. The structure of industry is agriculture 52%, industry 22% and service 26%. The main activity of the economy is agriculture production of rice and vegetables.

The Government of the Lao PDR needs to obtain foreign currency for economic growth by its exports. For this purpose, the Government established its constitution in 1991 and a foreign investment law in 1994. The Lao PDR has many mineral resources such as gold, copper, zinc, silver, etc. However, the survey, exploration and development for mineral resources are not adequate. One of the policies of the Government is to promote exploration and development of mineral resources by foreign and domestic investment. The Government promulgated its mining law in 1997 and made the framework for the improvement of the investment climate in the mining sector.

The recent state of the mining field is as follows:

- There is no systematic geological survey and exploration work
- There are many artisanal miners for small- and medium-scale deposits that are illegally mining.
- Insufficient data arrangement and geological information for investors
- Environmental problems caused by illegal mining
- Lack of efficient technology of development and operation of mines
- Lack education system for the geology and mining sectors

The Government of the Lao PDR has started to tackle the establishment of the basement of the mining industry for making it a pillar of the economy through the promotion of the mining industry by the resolution of the above problems. Now the Government has received support from UNDP (ESCAP) for the establishment of detailed regulations and from the World Bank on the "Strengthening of Management Capabilities in Department of Geology and Mines" for a mining government organization, DGM. A gold mine has already been developed and started operation by a foreign investor in 2003. In 2004, a copper mine will be developed.

However, the role of mining in the economy is not concrete still now for the development of the economy in the future. The Government of Lao PDR must establish a strategic Master Plan for the development of the mining industry linked to the national development plan. The efficient use of mineral resources needs to be linked to the reduction of poverty by its contribution of the economy and increased employment. There are many deposits that do not appeal to foreign investors because the deposits are small and medium-scale deposits and unattractive. Few people can make a plan like this strategic Master Plan and the technology, know-how and knowledge for linking to the economy by developing small- and medium-scale deposits are poor. The Government must develop the

mining industry as an industry with competitiveness in a globalized mining industry.

4-1 Recent Condition

1) General

The Lao People's Democratic Republic has a high potential for metallic and non-metallic minerals but this potential has not yet been realized in development of an economically viable mining industry.

Laos is known to have a mineral resource that includes gold, copper, lead, zinc, iron ore, tin and gemstone. Laos' mining activities are dominated by the production of gypsum and tin. Other mineral commodities produced in Laos include barite, coal, construction materials, gemstone, gold limestone and zinc. Almost of mining activities in Laos are small-scale. Some mines are operated by the State-owned mining enterprises or by joint ventures of the State-owned companies and foreign companies.

2) Outline of Geology and Mineral Potential

The basement of the Lao PDR is the Indosinian massif composed of sediments and igneous rocks of Pre-Cambrian. The Indo-China massif trends north-northwest to south-southeast. The basement distributes around the southern Laos. The strong folded sedimentary rocks of Paleozoic and Mesozoic are overlain in the north and central Laos. They consist of shale and sandstone of Lower Paleozoic, limestone of Upper Paleozoic and shale and sandstone of Mesozoic. On the other hand, the Cenozoic sediments are mainly overlain around sedimentary basin along the Mekong River.

Plutonic rocks of Late Paleozoic to Early Mesozoic era are mainly composed of granitic rock with gabbro. These rocks are formed by the relation to Indosinian orogeny and distribute at the margin of the Indosinian massif. Acidic to intermediate volcanic rocks of Late Paleozoic and Early Mesozoic era are distributed in the southern Laos near the border of Cambodia.

According to the above-described geological background, mineralization of the Laos is mainly divided into two stages. The first one is the mineralization related to Indosinian orogeny of Late Paleozoic to Early Mesozoic era. In this stage, the Indosinian massif and the South China massif had a collision repeatedly. The collision results in the formation of mineral deposits of copper, lead, zinc, iron and gold. The second mineralization of Late Mesozoic to Paleogene age mostly forms gold, copper, lead, zinc and barite deposits in Laos. The Lao PDR has potential for development of gold, copper and zinc deposits. The geological evidence is favorable, as at least more than 500 mineral deposits and occurrences have been reported. Mineral Resources of the Lao PDR show

in Appendix 2.

The UNDP Project has identified 16 mineral districts with a potential for economic mineral development in Laos (See Appendix 3).

3) Exploration and Development

As described, the mineral potential of the Lao PDR indicates various types of mineral deposits and occurrences. However most of these deposits have not been investigated in detail due to the lack of fund and lack of geological information. Recently systematic exploration has not been sufficiently performed by the modern prospecting technology because of lack of finance. Approximately 74 per cent of the country's area remains to be geologically survey at the reconnaissance scale of 1:200,000. The geology of the Laos is not well known in detail and many of new geological information is the result of satellite image interpretation with limited ground truth.

However, some deposits are under detailed exploration, and a few foreign enterprises have obtained exploitation licenses for development. The mining activities in the country have been on a relatively small scale, and recently there was almost no systematic exploration for commercial scale mineral deposit. However, there has been a interest by a few large foreign exploration companies acquired mineral concession, which is focused on exploration for base metals and gold. Some enterprises carried out the exploration work.

As one of the result of the above-described exploration, Sepon gold deposit in the southern province of Savannakhet began operating in February 2008. This gold project is Laos' largest mining operation and the first foreign capital with modern technology. The treatment plant would have an annual processing capacity of 1.25 million ton of ore and would produce at least 3,888 kg (125,000 ounces) of gold at a mine life of about 8 years. Mines in the Lao PDR are listed in Appendix 4 and 5.

The Government of the Lao PDR has not a few chances to appeal to the world about deposits and potential of mineral resources. Foreign companies' activity remains a little. The Government needs a system for the evaluation of deposits to be developed for a free market economy and an arrangement of a geological-infrastructure for promotion of investments. It is necessary to promote developing mineral deposits in accordance with long-term exploration plan.

4) Mining

Since 1975, large-scale mineral production in Laos has been limited to gypsum, tin, salt, coal and gemstones. Commercial mining activities are focused on gypsum and tin with minor coal and barite working. Other, even small-scale

mine activity is limited to sapphire and gold from alluvium. Production of mineral commodities in the Laos for the period from October 2002 to September 2003 is given in Appendix 6.

The Government recognizes the important role that foreign investors have to pay attention to develop metallic and profitable deposits as gold, copper, lead and zinc, rather than non-metallic resources in the country. Economic impact of exploitation of metallic mining industry will be contributed to a solution of the poverty reduction.

5) Environment

National Environmental Action Plan (NEAP) being basic policy was drafted in 1993 and adopted in 1994. Considering changes in the situation, a draft of "Amendment of NEAP" was submitted to the Prime Minister's Office in 2000. Environmental Protection Law (EPL) was enforced in 1999. The Government has introduced a system of Environmental Assessment (EA) by supports of international organization such as the World Bank, Asia Development Bank and Japan International Cooperation Agency.

However, kind of pollution and area of pollution are not grasped in the mining industry field. No monitoring system exists throughout Laos including areas near mining activity. For the Government, it needs management for environment protection using monitoring stations. In addition, monitoring stations are needed to catch the pollution trend because the Mekong River crosses many countries' borders. Environmental assessment for mining development is not sufficiently carried out. It is needed to establish a system for this aspect of evaluation.

6) Other

The Government organizations related to the mining sector needs training to obtain knowledge and know-how for management of this important industry. The Government staff has suitable skills for the mining sector. However, it is needs new knowledge on mining activity in a free market by training, seminars and other methods. For the management of the mining sector, the government organizations are examined for the efficient promotion of the mining industry and protection of the environment.

4-2 Mining Policy of Government

The Government of the Lao PDR put priority on the mining industry because of its high potential and development of local society. The Government's strategic policy for the mining sector is as follows:

- Promote the ecologically sustainable use of the country's mineral resources

- Promote systematic exploration of the country by modern and integrated techniques
- Promote the immediate development of small and artisanal mining ventures
- Promote the medium-term development of large-scale mining operations

Also the Government must arrange the climate of the mining industry with the improvement of its mining law and investment policy.

4-3 Existing Mining Industry Problems

In section 4-1, the recent condition is written on the mining industry. The Lao PDR has many problems for establishing the basement and promotion of the mining industry. There are many issues for a free economy with competitiveness such as the lack of funds, superannuated equipment and facilities, outdated technology, low level of profitability, environmental pollution, few foreign markets, many illegal small mines and poor IT and system of production. Furthermore, exploration activity has not increased, foreign investment is still a small amount, difficulty securing employment, little activity on development, insufficient training system for manpower and no vision nor long-term plan for the development of the mining industry.

4-4 Outline of this Study

- Review of law such as mining law and regulation, investment law and other laws
- Review of tax system on mining industry and relation with above law
- Condition of state policy for development
- Review of law related to environmental protection
- Evaluation of ore reserve and potential
- Evaluation of un-exploited and exploited deposit
- Condition of exploration activities and foreign companies' activity
- Renew and create small-scale mining laws and regulations or guidelines, evaluation of skills and technology of mining and processing for efficient production and management
- Recommendation for improvement of operation management
- Study economic contribution potential by mining activity
- Grasping environmental pollution and problems from mining activity
- Method for solution of problems in the mining industry
- Condition of education system
- Grasping technology and system
- Condition of infrastructure
- Establish GIS and database system
- Make Master Plan

- Make action program
- Make mining policy

4-5 Purpose of the Study

The Master Plan for the mining industry is needed for the construction of basement and promotion of the mining industry with high potentiality. A comprehensive plan that contributes to the economy should be made. The Lao PDR has knowledge to draft a plan, but in a free market, their ability and knowledge for making a plan in the mining industry-are not suitable. The Master Plan by technical assistance will bring a course and policy for the reconstruction and promotion of the mining industry.

In the world, digitalization is becoming common by using information technology (IT). The upgrading of a database and efficient GIS are needed for the promotion of the mining industry. In addition, a website for potential investors from advanced countries must be improved for raising funds and introduction of foreign capital. To grasp the real condition of pollution in polluted areas of the environment and obtain a system for pollution survey are needed through this survey. Also to work with the functioning of a monitoring system and to correspond with quick analysis are required. Sustainable development balanced with the environment is indispensable for the mining industry.

4-6 Goals of the Study

The "Study for Master Plan for Promotion of the Mining Industry in the Lao People's Democratic Republic" is to have a Master Plan with an action program for the construction of the economic basement, promotion of the mining industry, security of employment, promotion of investment, development of local society, etc. Goals of the study means start to implement the policy and action programs for construction of basement and promotion of the mining industry.

- Activation of the mining industry by the implementation of the action program, promotion of exploration
- Activation of the local economy
- Continuing environmental management by monitoring
- To make map of polluted dangerous area by continuing environmental surveys
- Sound development of small-scale mines in a legal manner
- Renewal of database and expand

4-7 Prospective Beneficiaries

The prospective beneficiaries are the exploration and mining companies and workers, and local society of the mines. Other industries related to the mining

industry will also be created from promotion of mining industry based on this Master Plan. These beneficiaries are linked to the national economy and government budget.

4.8 Project's Priority in National Development

The mining industry is a key industry for the engine to construct the economic basement and acquiring foreign currency by exporting its products. However, the mining industry has not even been developed. At first, the reconstruction of the mining industry is an issue for contributing to the national economy. The Lao PDR has an abundance of mineral resources such as copper, gold, zinc, silver, tin, and antimony as well as non-metal mineral resources for industry such as limestone, gypsum, and barite. The Government has made the mining industry its first priority for construction of basement and promotion to achieve the above purpose. The mining industry includes exploration activity, production of mining, and environmental protection.

5. Desirable Time for Commencement of Project

The Government of the Lao PDR would like to implement this project for resolving problems and implementation of action programs of the mining sector based on this Master Plan as soon as possible for the growth of its economy. The Government desires to start in 2005.

Expected Date of Start September 2005

Expected Date of Completion September 2008

6. Prospective Funding Sources

The Japanese government through the Japan International Cooperation Agency (JICA) Development Study Program

The Government of the Lao PDR will make a budget for the counterpart for carrying out this project such as wages of the staff, office for the Japanese team based on the schedule for realizing the countermeasures. After carrying out this project, the source of funding will be considered to be international organization loans, World Bank and advanced countries like Japan, etc. based on the report of this project.

7. Description of Similar Projects, if Available

There is no similar project.

II. Terms of Reference

1. Necessity of the Study

The mining sector in the Lao People's Democratic Republic has many problems,

which was written in the above Sections 4-1 and 4-3. At present the Organizations of the Government have few staff and experts that can resolve these problems. However, these staff and experts are insufficient for knowledge on a mining industry in a free market economy. Know-how is not accumulated for moving to a free economy. In the world, the mining industry is impacted by globalization. Competitiveness is an important condition for recovering and promoting mining activity. Laos has experienced conflict, moving from a social system, economic sanctions from 1985 to the 2000's, about 15 years. As a result, the Government needs to obtain know-how and new knowledge to promote with improvement to the level of the mining industry. "The Study for Master Plan" will become useful for the Lao PDR and not only the mining sector, but also for the construction of its economic basement. For this important goal, the Government should obtain knowledge and know-how for making a plan and have an action program and policy for the reconstruction and promotion of its mining industry. Through this project, experts and staff should learn the above matters. The Government would like to receive a technical transfer through this project.

2. Necessity of Japanese Technical Cooperation

Japan is an advanced country. Japan has a high level in IT and electronics. The technology and method of modern survey is used in Japan. Japan has strict regulations for environmental protection and management for environmental protection in the mining industry. Japan has a system and technology for an efficient mining industry especially for small-scale mines. The Government of the Lao PDR has heard that mines and exploration activity in Japan is decreasing, but Japan possesses knowledge and know-how in mining industry. Also Japan is a large smelter producer of copper and zinc with high quality control and high level of environmental protection in the world.

The Government of the Lao PDR would like to request the "Study for Master Plan for Promotion of the Mining Industry of the Lao People's Democratic Republic" for the construction of the economic basement, promotion of the mining industry, security of employment, promotion of investment, development of local society, etc. Japan has superior experts in the mining field for making a Master Plan. The Government of the Lao PDR would like to ask the Government of Japan to realize this project using Japan's knowledge and high technology.

3. Objective of the Study

- Preparation of Master Plan for promotion of the mining sector for the long term - 10 years, 20 years
- To make an action program for implementation of promotion and recommendation of mining sector in 5 years.

- To show a concrete mining policy
- To concretely select a potential area
- To grasp the feasibility for undeveloped deposits
- To make recommendations for management, production and environmental protection for mine
- To transfer a system and technology for environmental pollution survey as a model area for a pollution area by mining activity through an environmental survey
- To make a basement of a monitoring system in a mining area
- To make a basement for expansion of database and GIS
- To have complete information for web site for investment

4. Study Area

The whole country of the Lao People's Democratic Republic

5. Scope

A. Survey of Existing Data and Documents

a. Situation of mining sector

- Mining policy and present situation of mining in macro economy
- Mining production, present contribution of mining to national economy

b. Basement conditions of mining industry

- Review of law such as Mining Law, Foreign Investment Law and other laws and regulations
- Taxation on mining industry
- Condition of policy enforcement

c. Situation of environmental pollution and its prevention

- Review of law related to environmental protection
- Condition of environmental monitoring
- Environmental management

d. Mineral reserves and potential of mineral resources

- Proven mineral reserves and evaluation of potential areas
- Methods of evaluation of ore reserve

e. Exploration and deposit evaluation

- Exploration activities
- Evaluation of un-exploited and exploited deposit

f. Production

- Ore production and grade, evaluation of skills and technology of mining and processing
- Quality control techniques
- Operation management

g. Infrastructure

- Roads, bridges, hydroelectric power, water (surface and underground), and transportation
- Training of human resources and education system

B. Environment Survey

- Environmental survey as example for grasping the kind of pollution and expansion of pollution as a model
- Analysis of results of survey
- Technical transfer on method of survey and analysis
- Consideration of guideline for environmental management

C. Pilot Project

- Condition of exploration
- Establishment of a small-scale model mine
- Making guideline of small-scale mine and exploitation with environmental protection
- Study of an undeveloped deposit at pre-feasibility study including site survey
- Test study for a mine for improvement of mining management and productivity
- Test study of processing plant and environmental management
- Test project for regulations and guideline of mine

d. Making a Master Plan

a. Recommendation of policy and strategy

b. Formulation of promotion measure

- Promotion of exploration and development
- Improvement of productivity and quality control
- Introduction of foreign capital and raising of national private capital
- Market development, utilization of GIS technology
- Environmental protection
- Master plan, action programs

E. Construction of GIS database

a. Basic framework of database

- Design of database
- Arrangement of the data

b. Preparation of data

- Distribution of deposits, and information on main deposits, mines, remote sensing, geophysical and geochemical prospecting
- Infrastructure such as roads, bridges, hydroelectric power station and

network, water (surface and underground), vegetation, environmental pollution

c. Formulation of GIS database

- Formulation and selection of a prospective area

d. Formulation of website

- Provision of GIS database
- Information related to mining activities

e. Development of GIS-database application

- Application for mining industry and environment protection

F. Seminar

Hold seminar for introduction of investment for foreign capital and technical transfer seminar in the Lao PDR.

For this study, the Government of Lao PDR would like to ask the Government of Japan to provide the following equipment because the Government of Lao PDR has a shortage and insufficient equipment.

- A few computers for GIS and database
- Software for GIS and database (Arcview, etc.)
- Software for pre-feasibility study on the pilot project
- AO plotter, printer, LCD, projector, notebooks, scannerA0, digital camera, video camera.
- Monitoring equipment for installation near mining activity
- Chemical analysis equipment for grasping the kind of pollution and degree of pollution
- Land Cruiser for site survey
- Drilling machines for site detailed geological survey
- Backhoe and dump truck for civil work
- Drilling machines for exploration and development tunnel
- Load haul dump (LHD) for preparing exploration and development tunnel

6. Reports

This study should make a report for each step. Basically the reports are composed of the progress, interim, draft final and final reports.

The Laos Government organizations will be transferred the method and technology of this study through each report.

7. Study Schedule

The term is three years.

	Year 1	Year 2	Year 3
A. Survey of existing data and documents	●-----●	●-----●	
B. Environment survey		●-----●	
C. Pilot project of pre-F/S		●-----●	●-----●
D. Making a Master Plan		●-----●	●-----●
E. Construction of GIS system, database	●-----●	●-----●	●-----●
F. Seminar		●-----●	●-----●

8. Expected Major Outputs of the Study

- Evaluation for mineral resources and pre-feasibility of undeveloped deposits especially such as gold, copper, zinc, etc.
- Problems of mining industry and measures and countermeasures
- Master Plan, action plan, mining policy
- Protection countermeasures from mine pollution and surrounding area
- Improvement measures for mining industry
- Analyze data for countermeasure for resolving of small area for model survey for environmental pollution
- GIS system by management for mining industry
- Web site for investors
- Chemical analysis and monitoring systems for environmental management
- Course for promotion of mining industry

9. Request of the Study to Other Donor Countries, if any

The Government of the Lao PDR did not request this study to other donor countries.

10. Other Relevant Information, if any

None

III. Facilities and Information for the Japanese Study Team

1. Experts for the program

Leader	1
Mining law expert	1
Economist	1
Geologist	2
Mining engineer	1
Process engineer	1
GIS expert on mining and environment	1
Environmental expert	1
Database specialist	1
Total	10

2. Available Data, Information, Documents, Maps, etc., related to the Study

Name of documents	Year completed	Content
1/1,000,000 geological map	1991	
1/200,000 geological map	On-going	26% completed
1/50,000 geological map	On-going	Some part of mining concession areas
1/1,000,000 Mineral occurrence map	1991	
Geologic map of ore deposits	On-going	
Ore reserve registration data	On-going	
Report of minerals exploration		Coal, iron, potash, glass-sand, gold, etc.

Documents include maps, reports, data, etc.

3. Information on the Security Conditions in the Study Area

There is no problem for security in the study area. However, the Government of the Lao PDR will have established a security group for communication with the Japanese experts.

IV. Global Issues

1. Mining Industry Components

- Sustainable development for economic activity
- Protection of the environment
- Development of local economy
- Development of small-scale mining

2. Anticipated Environmental Impacts

None

3. Women as Main Beneficiaries or not

None

4. Project Components which Require Special Consideration for Women

None

5. Anticipated Impact on Women

None

6. Poverty Reduction

By the construction of the Laotian mining industry, the economic growth of the country will be continued.

7. Any Constraints against People with Low Income Caused by the Project

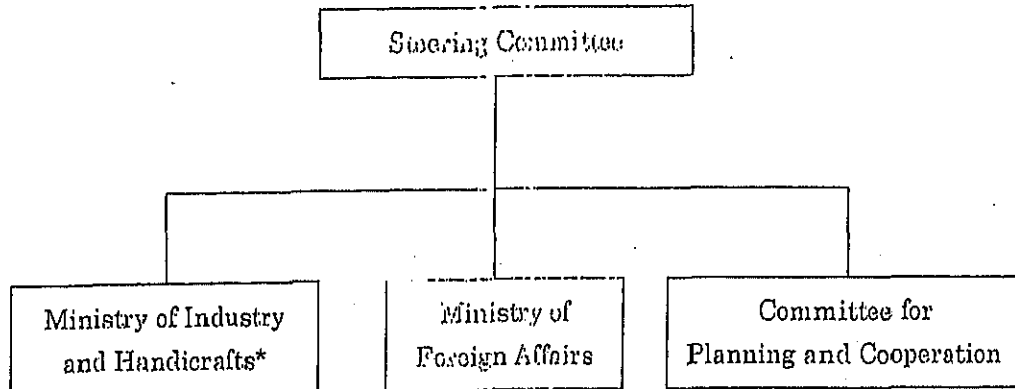
None

V. Undertaking of the Government of the Lao People's Democratic Republic

1. Establishment of Steering Committee

The Government of the Lao PDR will make a Steering Committee as the counterpart of the Japanese Study Team. The Department of Geology and Mines,

Ministry of Industry and Handicrafts is the communication organization with the Japanese Study Team.



(*) Department of Geology and Mines

2. Request to the Government of Japan on implementation of study
 - a. Dispatching of Japanese experts to the Lao PDR for leadership and implementation of the study;
 - b. Delivery of the computers, automobiles and other technical facilities which are necessary for the implementation of the study;
 - c. Invitation of Laotian experts to Japan for training;
 - d. Guarantee of confidentiality and data submitted by the Government of the Lao PDR to the Japanese side on condition of keeping secret.

3. Obligation of the Government of the Lao PDR
 - a. Guarantee of the safety of experts sent by the Government of Japan;
 - b. Providing of Japanese experts with the permission to visit the places necessary for the implementation of study;
 - c. Guarantee of the access to information and data which will be necessary for the implementation of the study, and submission of such information;
 - d. Observance of other items, which will be specified jointly with the Government of Japan.



ຄອນເມີອ ພົນນະຈັນ

Minister
 Ministry of Industry and Handicrafts
 Lao People's Democratic Republic

List of Attachments

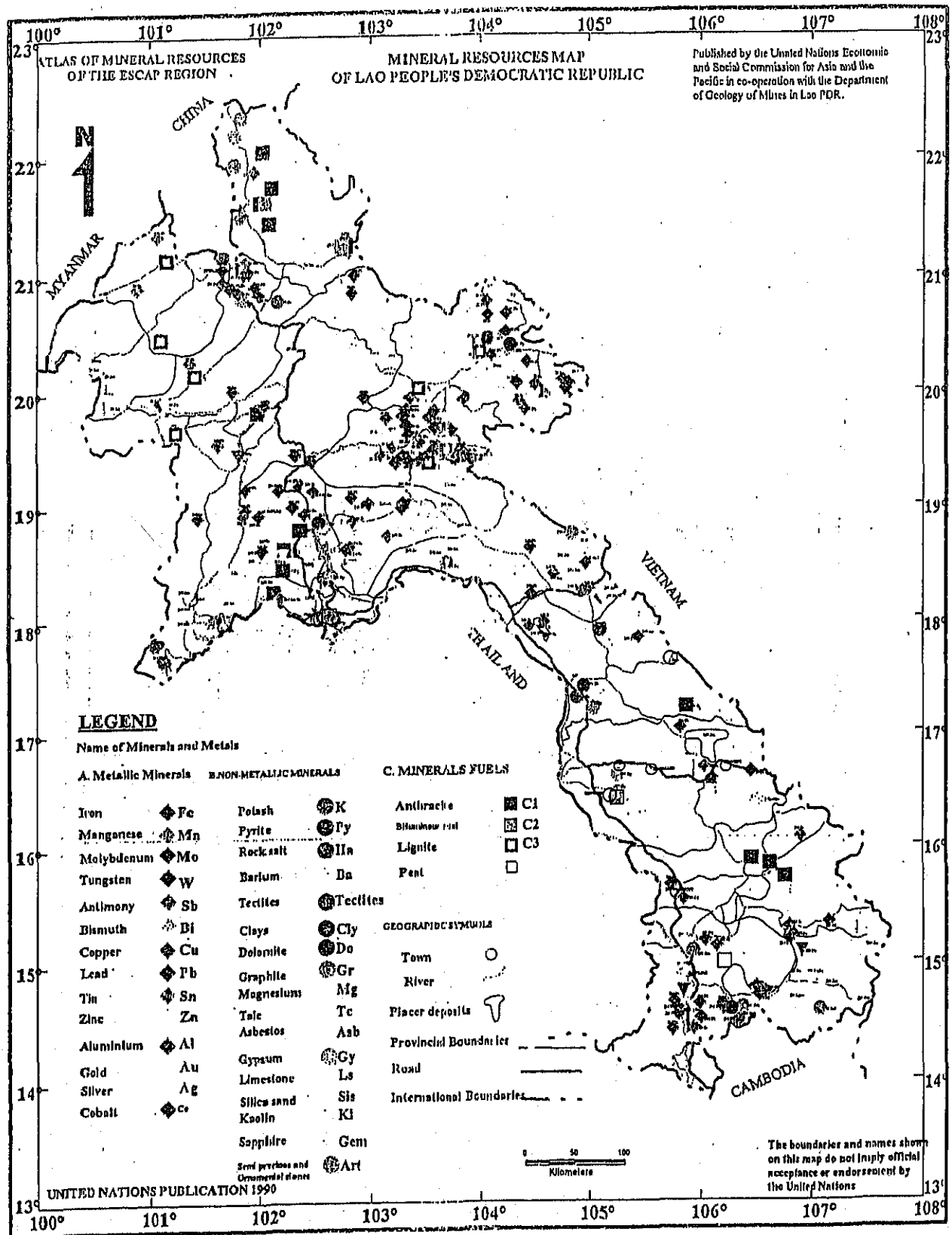
Appendix 1. Organization Chart of Ministry of Industry and Handicrafts

Appendix 2. Mineral Resources Map of the Lao PDR

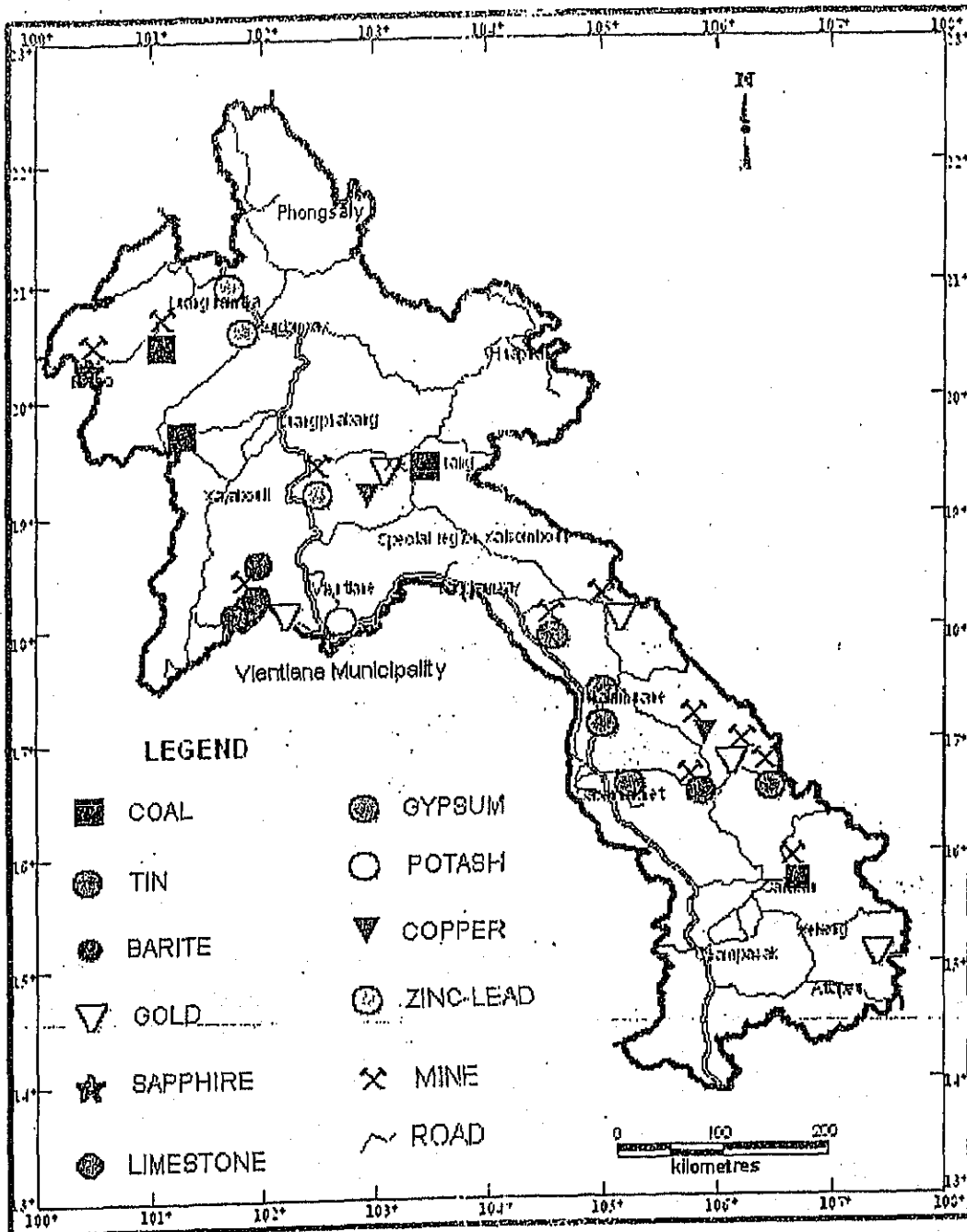
Appendix 3. Potential districts for economic mineral development in the Lao PDR

Appendix 4. List of Mines and Deposits in the Lao PDR

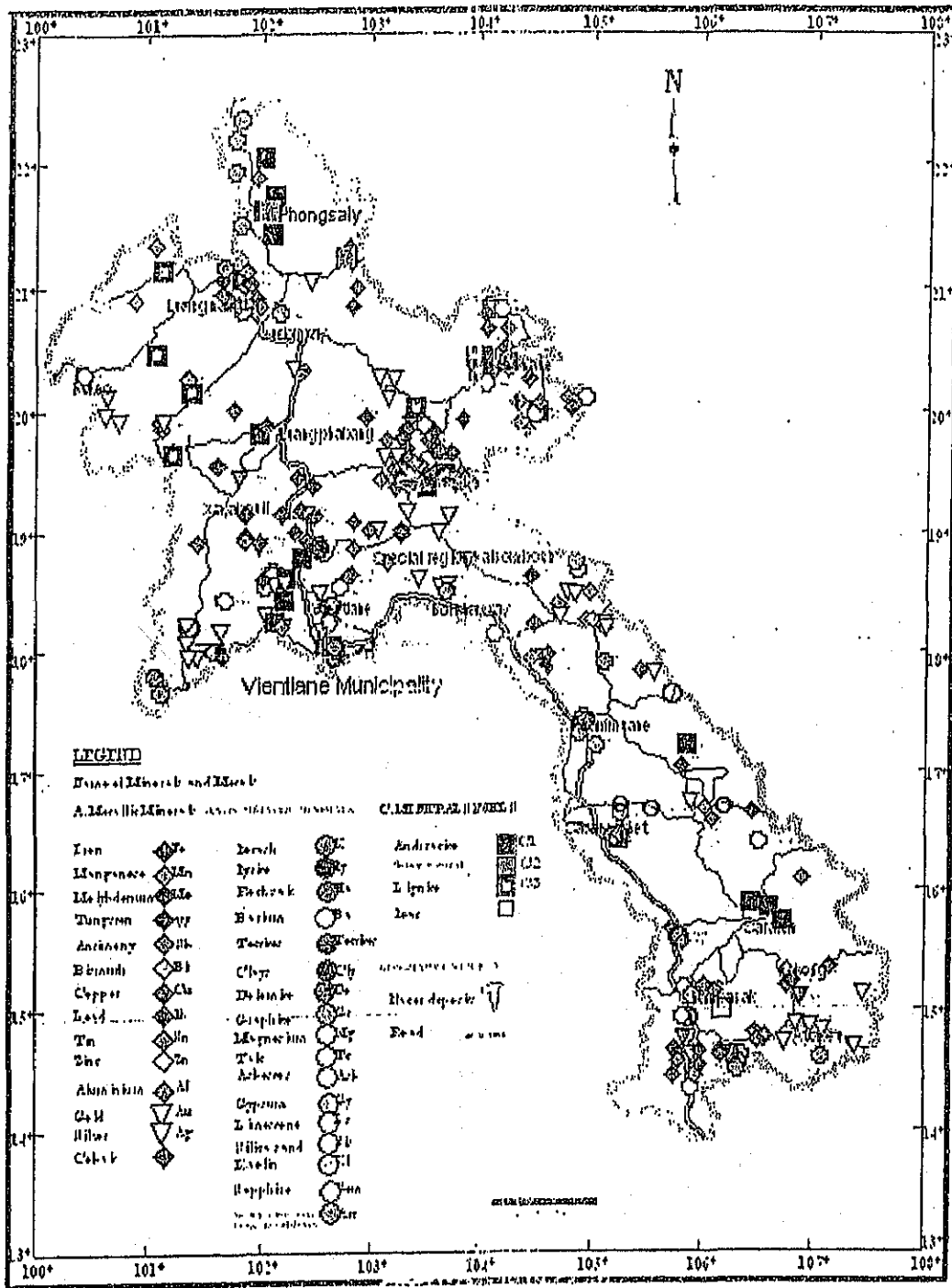
Appendix 5. Mineral production in the Lao PDR, October 1999 – September 2000



Source: DGM/10/2/003



Appendix 4. List of Mines and Deposits in the Lao PDR



Appendix 2. Mineral Resources Map of the Lao PDR

Appendix 3. Potential districts for economic mineral development in the Lao PDR

	Mineral districts	Minerals and genetic types
1	Muang Fouang-Nam La	Gold and base metals Replacement in limestone
2	Sanakham	Gold and Base metals Granitoid-associated
3	Nam Met	Gold Fluvial and Alluvial
4	Vang Vieng-Kasi	Base metals, polymetallics Replacement in limestone
5	Louang Prabang	Gold - volcanogenic environment Placers
6	Nam Ou	Gold - volcanogenic environment Placer
7	Pak Beng	Gold - volcanogenic environment Placer
8	Oudomxai	Base metals - copper occurrences
9	Xiengkhouang	Gold and Base metals
10	Sam Neua - Ban Done	Gems/Beryllium
11	Sam Neua	Chromite/platinum Ultramafites
12	Pha Lek	Iron - Cu/Au Sarns
13	Lak Xao	Gold Placers
14	Upper Xekong basin	Gold/Silver Placers
15	Upper Xe Kaman	Gold Placers
16	Champasak	Base metals

A. Main Mines of Non-Ferrous Metals and Gold

No.	Name	Location	Mineral	Annual Production	Grade	Reserves
1	Nong Sun		Tin			
2	Phon Thiou		Tin			
3	Kaiso	Vang Vieng	Zinc	1000 t	Zn 27.6%	
4						
5						
6						
7						
8						

B. Main Deposits of Non-Ferrous Metals and Gold

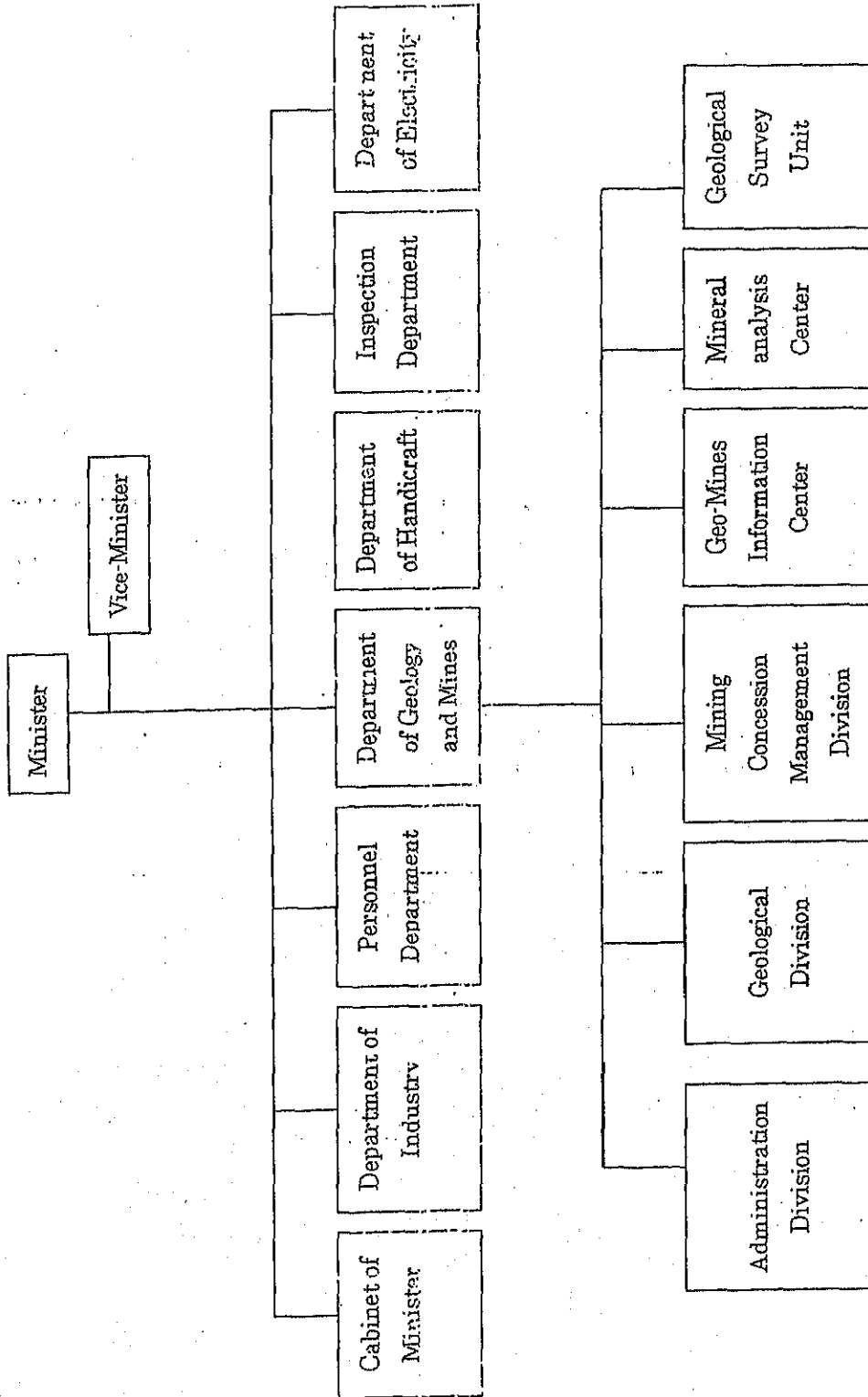
No.	Name	Location	Metal	Exploration Stage	Type of Mineralization	Grade	Reserves
1	Sepou	Savannakhet	Au	Developing		Au 3.48 g/t	48.5 ton
2	Khanong	Savannakhet	Cu	Final stage		Cu 5.2%	15.5 million ton
3	Phu Bia		Au				
4	Ban Houayxai		Au				15 ton
5	Phu Khan		Au, Cu				50 t of Au 1.1 Mt of Cu
6	Ling Chieng Track		Au				
7							
8							

Appendix 4. List of Mines and Deposits in the Lao PDR

Appendix 5. Mineral production in the Lao PDR, October 1999 – September 2000

Mineral commodity	Unit	Quantity
Coal for export	Tons	167,878.23
Coal for domestic use	Tons	17,785.96
Tin (70%)	Tons	578.25
Sapphires	Carats	802,656.00
Limestone for cement	Tons	122,265.47
Limestone for construction	Cubic metres	15,856.00
Shale for cement plant	Cubic metres	17,031.08
Barite	Tons	1,400.00
Gypsum	Tons	137,500.00

Source: Phongthavongse, 2001.



Name of Project:

Study for Master Plan for Promotion of the
Mining Industry of the Lao People's Democratic
Republic

Screening Format

Question 1 Outline of the project

1-1 Does the project come under following sectors?

Yes No

If yes, please mark corresponding items.

- Mining development
- Industrial development
- Thermal power (including geothermal power)
- Hydropower, dams and reservoirs
- River/erosion control
- Power transmission and distribution lines
- Roads, railways and bridges
- Airports
- Ports and harbors
- Water supply, sewage and waste treatment
- Waste management and disposal
- Agriculture involving large-scale land-clearing or irrigation
- Forestry
- Fishery
- Tourism

1-2 Does the project include the following items?

Yes No

If yes, please mark following items.

- Involuntary resettlement (scale: households persons)
- Groundwater pumping (scale: m³/year)
- Land reclamation, land development and land-clearing (scale:)
- Logging (scale: hectares)

1-3 Did the proponent consider alternatives before request?

Yes: Please describe outline of the alternatives

No

1-4 Did the proponent have meetings with the related stakeholders before request?

Yes No

If yes, please mark the corresponding stakeholders.

Administrative body

Local residents

NGO

Others ()

Question 2

Is the project a new one or an on-going one? In the case of an on-going one, have you received strong complaints etc. from local residents?

New On-going (there are complaints) On-going (there are no complaints)

Others ()

Question 3 Name of the law or guidelines:

Is Environmental Impact Assessment (EIA) including Initial Environmental Examination (IEE) required for the project according to a law or guidelines in the host country?

Yes No

If yes, please mark the corresponding items.

Required only IEE (Implemented, on going, planning)

Required both IEE and EIA (Implemented, on going, planning)

Required only EIA (Implemented, on going, planning)

Others: ()

Question 4

In case of that EIA was taken steps, was EIA approved by relevant laws in the host country?

If yes, please mark date of approval and the competent authority.

<input type="checkbox"/> Approved: without a supplementary condition	<input type="checkbox"/> Approved: with a supplementary condition	<input type="checkbox"/> Under appraisal
--	---	--

(Date of approval:) Competent authority:)

Not yet started an appraisal process

Others: ()

Question 5

If a certificate regarding the environment and society other than EIA is required, please indicate the title of certificate.

Already certified

Required a certificate but not yet done

Title of the certificate :(

Not required

Others

Question 6

Are following areas located inside or around the project site?

Yes No Not identified

If yes, please mark corresponding items.

National parks, protected areas designated by the government (coast line, wetlands, reserved area for ethnic or indigenous people, cultural heritage) and areas being considered for national parks or protected areas

Virgin forests, tropical forests

Ecological important habitat areas (coral reef, mangrove wetland, tidal flats)

Habitat of valuable species protected by domestic laws or international treaties

Likely salts cumulus or soil erosion areas on a massive scale

Remarkable desertification trend areas

Archaeological, historical or cultural valuable areas

Living areas of ethnic, indigenous people or nomads who have a traditional lifestyle, or special socially valuable area

Question 7

Does the project have adverse impacts on the environment and local communities?

Yes

No

Not identified

Reason:

Question 8

Please mark related environmental and social impacts, and describe their outlines.

- | | |
|---|---|
| <input type="checkbox"/> Air pollution | <input type="checkbox"/> Social institutions such as social infrastructure and local decision-making institutions |
| <input type="checkbox"/> Water pollution | <input type="checkbox"/> Existing social infrastructures and services |
| <input type="checkbox"/> Soil pollution | <input type="checkbox"/> The poor, indigenous or ethnic people |
| <input type="checkbox"/> Waste | <input type="checkbox"/> Maldistribution of benefit and damage |
| <input type="checkbox"/> Noise and vibration | <input type="checkbox"/> Local conflict of interests |
| <input type="checkbox"/> Ground subsidence | <input type="checkbox"/> Gender |
| <input type="checkbox"/> Offensive odors | <input type="checkbox"/> Children's rights |
| <input type="checkbox"/> Geographical features | <input type="checkbox"/> Cultural heritage |
| <input type="checkbox"/> Bottom sediment | <input type="checkbox"/> Infectious diseases such as HIV/AIDS etc. |
| <input type="checkbox"/> Biota and ecosystem | <input type="checkbox"/> Others () |
| <input type="checkbox"/> Water usage | |
| <input type="checkbox"/> Accidents | |
| <input type="checkbox"/> Global warming | |
| <input type="checkbox"/> Involuntary resettlement | |
| <input type="checkbox"/> Local economy such as employment and livelihood etc. | |
| <input type="checkbox"/> Land use and utilization of local resources | |

Outline of related impacts:

[]

Question 9

Information disclosure and meetings with stakeholders

9-1 If the environmental and social considerations are required, does the proponent agree on information disclosure and meetings with stakeholders in accordance with JICA Guidelines for Environmental and Social Considerations?

Yes No

9-2 If no, please describe reasons below.

[]

4. ラオス国の環境関連法規の規定内容

(1) 憲法(1991年)

憲法第17条に「すべての組織及び国民は環境及び天然資源:土地、地下、森林、動物、水資源及び大気を保護しなければならない」と定めている。

(2) 環境保護法(1999年)

環境保護法

第1章 一般規定
第1条:環境保護法の機能。第2条:環境の定義(生態系を形成する土壌、水、森林、植物、動物、微生物、山、岩石、鉱物及び大気、人が創造した考古学的遺産、歴史的遺産、集落、建物、振動、放射、色彩及び臭い)。第3条:環境保護の定義。第4条:環境保護の責務(政府の責務、国民の責務、外国人の責務)。第5条:環境保護の原則。第6条:環境保護に関する国際関係及び国際協力
第2章 環境悪化の防止
第1項 環境悪化の防止
第7条:環境悪化防止の内容。第8条:環境影響評価の実施。第9条:環境影響防止のための技術の適用。第10条:建設・修理事業における作業環境対策(煙、塵、振動、騒音、放射線、光線、悪臭、廃棄物、障害物)。
第2項 天然資源保護、開発及び利用
第11条:天然資源の定義(土地、水、大気、森林、生物多様性、鉱物、岩石、生計及び社会経済開発に重要な条件)。第12条:天然資源の種類。第13条:天然資源保護に対する人々及び組織の責務、第14条:天然資源開発及び利用に関する対策。第15条:生物多様性の保護、第16条:文化的、歴史的に重要な地区及び自然保護区の保護。
第3項 災害防止
第17条:災害の定義(洪水、干ばつ、火災、台風、地滑り、浸食、伝染病、疫病、地震、油流出など)。第18条:災害防止の責務、第19条:自然災害委員会の設立。
第3章 汚染防止
第1項 汚染
第20条:汚染の定義。第21条:汚染の種類(水質汚濁、土壌汚染、大気汚染、有害物質、放射性物質、廃棄物、騒音、振動、光線、悪臭による汚染)。
第2項 汚染防止対策の責務
第22条:汚染防止に対する人々及び組織の責務。第23条:汚染防止対策。
第4章 環境対策及び回復
第1項 環境対策
第24条:環境対策の定義。第25条:環境対策に対する人々及び組織の責務。
第2項 環境回復
第26条:環境回復の定義。第27条:環境回復に対する人々及び組織の責務。第28条:災害により破壊されたエリアの回復。第29条:文化的、歴史的に重要な地区及び自然保護区の回復。
第5章 環境保護基金
第30条:環境保護基金の目的。第31条:基金の調達源(政府予算、開発プロジェクト及び関連する活動、国際機関及び地方機関からの寄付、基金の利息・利益)。第32条:基金の利用。
第6章 環境に関する国際関係及び国際協力
第33条:環境に関する国際関係に対する政府の支援。第34条:環境に関する国際紛争の解決。
第7章 環境管理及びモニタリング
第35条:環境管理及びモニタリング体制。第36条:科学技術環境庁の権利及び責務。第37条:政府レベルにおける環境管理及びモニタリング組織の権利及び責務。第38条:県、市及び特別区レベルにおける環境管理及びモニタリング組織の権利及び責務。第39条:地区レベルにおける環境管理及びモニタリング組織の権利及び責務。第40条:村レベルにおける環境管理及びモニタリング組織の権利及び責務。第41条:環境検査の定義、第42条:環境検査の種類。
第8章 表彰及び罰則
第43条:環境及び自然保護に関する業績に対する表彰。第44条:罰則の種類。第45条:警告、第46条:罰金。第47条:賠償。第48条:刑事責任。第49条:追加罰則。
第9章 最終規定
第50条:実施体制。第51条:法律の発効日(1999年4月3日)

出典:平成15年度アジア産業基盤強化事業 法制度支援調査:ラオスにおける鉱業関連法制度整備支援調査報告書 平成16年2月 財団法人 国際鉱物資源開発協力協会

(3) 環境保護法施行規則

環境保護法施行規則

第I章
第1条:目的。第2条:環境保護。第3条:環境を保護する義務。
第II章 環境に関する規則
第1項 環境悪化の防止
第4条環境悪化の防止。第5条:一般的環境影響評価規則。第6条:部門環境影響評価規則。第7条環境影響評価に基づく事業の実施。第8条:技術の使用。第9条建設及び修理の技術基準。第10条:生物多様性資源の管理。第11条:国の文化・歴史・自然遺産の保全。
第III章 災害防衛のための対策及び措置
第12条:災害防止計画。第13条:災害制御を担当する政府機関の責務
第IV章 汚染の防止
第14条:環境基準。第15条:汚染防止・対策。
第V章環境の修復及び復元
第16条:環境の修復。第17条:環境の復元
第VI章 環境教育及び環境意識
第18条:教育制度における環境教育。第19条:環境に関する国民の意識
第VII章 環境管理・監視班の設置
第20条:環境検査。第21条:環境管理・監視班の設置。第22条:検査の内容。
第VIII章 環境保護基金
第23条:環境保護基金の設置。第24条:表彰及び制裁
第IX章 最終規定
第25条:施行。第26条:発効。

出典:平成15年度アジア産業基盤強化事業 法制度支援調査:ラオスにおける鉱業関連法制度整備支援調査報告書 平成16年2月 財団法人 国際鉱物資源開発協力協会

(5) 鉱業法

鉱業法の環境に関する規定

第5条:環境保護
鉱山操業の認可を受けた人は天然資源損失及び環境影響への処置・対策を行わなければならない。
第23条:鉱山操業の方法
探査終了時及び探査を行う計画がある場合には、政府から認可された鉱区についての費用効果分析、環境・生態・社会影響評価を含むフィージビリティスタディが必要である。
第29条:開発可能性の評価
探査のフィージビリティは鉱物埋蔵量の社会経済潜在力及び環境影響により評価する。
第31条:環境影響評価
フィージビリティスタディと同時に、投資者は以下の内容を含む環境影響評価を行わなければならない。
1. 環境・生態・社会影響への対策・解決策による環境予測評価
2. 開発により影響を受ける住民の生活環境の向上、適切な居住地・生計の提供を含む住民移転の評価
第32条:鉱業権の基準
鉱業権を取得するためには以下の条件に適合しなければならない。
1. 財務技術的能力
2. 鉱業活動を行うための十分な経験
3. 鉱業権が国家社会経済開発計画に有効、適切であり、重大な環境影響がないこと
第40条:鉱業活動の権利
鉱山活動を行うに当たり、鉱業権者は政府と水、電力及びその他操業に必要なものの供給を受ける契約を結ぶ権利を有する。ただし、鉱業権者は法律に規定される許可を取得しなければならない。鉱山プロジェクトにおいて用水はリサイクルし、排水は住民及び環境を守るため、排出前に処理されなければならない。鉱山操業において有害物質を使用する場合、政府は当該地域を特別地域又は特定鉱業地域として指定する。鉱業権者が鉱区内で木材を使用するときは、承認と補償を必要とする。鉱業権者による操業が個人または組織の土地、建物または農作物に被害を及ぼす場合は、補償・回復をしなければならない。
第42条:鉱業権者の義務
鉱業権者は以下の義務を負う。
4. 鉱山操業にかかる土地の管理と保全を行う。閉山後には土地を回復させるものとし、環境、国家の安全または住

民に重大な影響を与えないことを保証し、公共及び住民の生命・財産に被害を及ぼした場合は適切な補償を行う。
6. ラオス人労働者の訓練及び技能開発を行うとともに福利、健康及び安全を保証する。
第45条: 技術的基準
鉱業活動を行うに当たり、鉱業権者は国際基準に適合した技術を用いなければならない。効率、安全及び環境保全を確保する観点から、鉱業・手工芸省又はその他の関連当局の承認を得なければならない。
第46条: 鉱山地域の返却と原状回復
鉱業活動によって地表が改変されている場合には、返却前に原状回復することが必要であり、必要な場合には、浄化、化学的汚染の除去及び植栽を施さなければならない。
第47条: 補償
鉱業権者は、以下の事項に対応する適切な維持基金を設置しなければならない。
1. 鉱業地域から住民を移転させ、住民の生活を保証する
2. 土地、建物あるいは農作物への被害の補償
3. 土地の取得
4. 環境の保全
5. 鉱山地域の原状回復。
この基金はプロジェクトの起業費に含まれなければならない。
第53条: 鉱業活動の管理
鉱山活動の管理とは、概査、探査、採掘、処理、販売を通じた鉱業活動及び閉山後において、鉱業法及びその他のラオスの法律にしたがって個人または法人が適切な行為を行っていることを含む。管理すべき主な事項は以下のものである。
5. 労働安全対策の実施
6. 環境影響を最小にするための対策実施
第59条: 罰金
個人または法人が、本鉱業法に違反することは以下のことが含まれる。
6. 環境保全の対策を行わないこと、未処理の排水の排出、または、住民の健康に影響を及ぼす有害物質を含む水を排出すること。

出典:平成 15 年度アジア産業基盤強化事業 法制度支援調査:ラオスにおける鉱業関連法制度整備支援調査報告書 平成 16 年 2 月 財団法人 国際鉱物資源開発協力協会

(6) 鉱業法施行規則

鉱業法施行規則の環境に関する規定

鉱業法施行規則第5条: 外国投資家に対する鉱業事業手続の許可
信頼できる実現可能性調査と環境社会影響評価を完成させること。
鉱業法施行規則第12条: 労働者に対する鉱業免許所有者の義務
鉱業免許所有者は、福祉・衛生・安全の保証を含め、ラオス労働者に資格を与える義務を負う。鉱業免許所有者は、鉱業法第 42.6 条の規定に従い承認を取得するため鉱業衛生・安全研修プログラムを関係当局へ提出しなければならない。

(7) 鉱業セクター環境保護規則

鉱業セクター環境保護規則の環境に関する規定項目

第 I 章 一般規定
第 1 条: 目的。第 2 条: 第 2 条 鉱山環境(人、鉱物、技術、機器、土壌、水、大気、植物相、動物相、山岳、社会基盤、振動、騒音、色彩、悪臭及び汚染)。第 3 条: 環境保護。第 4 条: 環境保護の義務。第 5 条: 環境保護の基本的方法。第 6 条: 国内・国際協力関係。
第 II 章 環境保護
第 7 条: 環境影響評価。第 8 条: 使用技術。
第 III 章 汚染物質及び有害物質の防止対策
第 9 条: 有害物質。第 10 条: 汚染メカニズム及び汚染物質。第 11 条: 有害物質及び汚染物質を監視する義務。第 12 条: 汚染物質及び有害物質の防止対策。第 13 条: 環境影響評価報告書、環境管理計画及び環境・社会影響影響評価の内容。
第 IV 章 再生及び復元
第 14 条: 再生及び復元
第 V 章 鉱山管理・検査班

第16条:国内・国際協力関係。第17条:鉱山管理・検査班の権利義務。
第VI章 表彰及び罰則
第18条:表彰。第19条:罰則
第VII章 最終規定
第20条:施行

出典:平成15年度アジア産業基盤強化事業 法制度支援調査:ラオスにおける鉱業関連法制度整備支援調査報告書 平成16年2月 財団法人 国際鉱物資源開発協力協会

(8) 水及び水資源法

水及び水資源法の環境に関する規定項目

第I章 一般規定
第1条:水及び水資源法の機能。第2条:水及び水資源。第3条:水及び集水。第4条:水及び水資源の所有権。第5条:水及び水資源の促進、開発及び保全。第6条:水及び水資源管理の原則。第7条:水及び水資源保護の義務
第II章 水資源の種類及び貯水池の調査、目録作成及び決定
第8条:調査及び目録作成。第9条:水資源の種類決定。第10条:集水域の種類。第11条:水資源及び集水域の配置。第11条:水資源及び集水域の配置決定。
第III章 水及び水資源の利用
第13条:水及び水資源の利用目的。第14条:水及び水資源法の利用権。第15条:小規模水利用。第16条:中規模水利用。第17条:大規模水利用。第18条:水利用の種類。第19条:水及び水資源の管理。
第IV章 水及び水資源開発及び水及び水資源開発活動の管理
第20条:水及び水資源開発活動。第21条:水及び水資源開発活動の実施。第22条:水及び水資源開発活動の実施原則。第23条:水及び水資源開発活動の管理。第24条:水源及び水資源保全のための基金。第25条:水源及び水資源保全を発電に利用する場合の保全促進。第26条:集水域における公共建築物の促進。第27条:水流の迂回、分離または変更。第28条:住民移転。
第V章 水及び水資源保護
第29条:水及び水資源保護。第30条:水及び水資源保護地域。第31条:禁止事項。第32条:水質基準。
第VI章 否定しがたい事実
第33条:事実。第34条:自然的事実。第35条:法律的事実。第36条:水上または水流の近傍地の居住者の権利。第37条:水及び水資源管理当局の権利及び義務。第38条:紛争解決。
第VII章 水害の防止
第39条:水害。第40条:洪水制御。第41条:浸食防止。第42条:汚濁水防止。第43条:モニタリング及び検査。
第VIII章 水及び水資源の利用、管理及び保護に関する国際協力
第44条:水及び水資源の開発・制御。第45条:水及び水資源に関する紛争解決。
第IX章 有意義な人の特典及び違反者への措置
第46条:有意義な人の特典申請。第47条:違反者への措置
第X章 最終規定
第48条:施行。第49条:発効。

出典:Nam Theun 2 Hydroelectric Project Social Development Plan, November 2004

(9) 土地法

土地法の規定項目

第I部
第1条:土地法の機能。第2条:土地。第3条:土地の所有権。第4条:土地開発の促進。第5条:土地使用権者の権利及び利益保護。第6条:土地及び環境の保護。第7条:不法占拠の禁止。
第II部 土地の管理
第1章 土地の管理組織
第8条:土地の管理組織。第9条:土地の管理。第10条:土地の管理組織の権利及び義務。第11条:地目。第12条:地目の決定。第13条:借地。第14条:地目の変更。
第2章 農地の管理
第15条:農地。第16条:農地の管理。第17条:農地使用権の範囲決定。第18条:農地使用権の付与。
第3章 林地の管理
第19条:林地。第20条:林地の管理。第21条:林地使用権の範囲決定。第22条:林地使用権の付与。

第4章 水域にある土地の管理
第23条:水域にある土地。第24条:水域にある土地の管理。第25条:水域にある土地の使用規制。第26条:水域にある土地の使用。
第5章 工業地の管理
第27条:工業地。第28条:工業地の管理。第29条:工業地使用の規制。
第6章 交通用地の管理
第30条:交通用地。第31条:交通用地の管理。第32条:交通用地の使用。
第7章 文化遺産の管理
第33条:文化遺産。第34条:文化遺産の管理。
第8章 国家防衛安全のための土地管理
第35条:国家防衛安全のための土地。第36条:国家防衛安全のための土地管理。第37条:国家防衛安全のために指定された土地以外の使用。
第9章 建築物用土地の管理
第38条:建築物用土地。第39条:建築物用土地の管理。第40条:建築物用土地の種類。第41条:建築物用土地の使用規制。第42条:建築物用土地の使用範囲の決定。
第10章 土地登記
第43条:土地登記。第44条:土地登記の様式。第45条:土地登記の申請。第46条:土地登記の申請検証。第47条:土地登記簿。第48条:土地登記証明書。第49条:土地所有権。第50条:土地所有権の写し発行。第51条:土地の法的登記。
第III部 土地の使用者の権利及び義務
第1章 土地に関するラオス国民の権利及び義務
第52条:土地使用の権利取得。第53条:土地使用の権利取得者の権利。第54条:土地保護の権利。第55条:土地使用権。第56条:土地使用権の受領。第57条:土地使用権の移転。第58条:土地使用権の相続。第59条:国家、政府組織、建設国民戦線、民主組織及び国家経済組織の権利。第60条:土地使用者の義務。第61条:敷設権。第62条:土地使用権の喪失。第63条:土地使用権の終了。
第2章 土地の利権・借地に関する居住外国人、無国籍の人及び外国人の権利及び義務
第64条:居住外国人、無国籍の人及び外国人の土地の利権または借地。第65条:土地の利権または借地の条件。第66条:居住外国人、無国籍の人、外国人及びそれら組織の土地の利権または借地の受領権。第67条:居住外国人、無国籍の人、外国人及びそれら組織の土地の利権または借地に関する義務。
第3章 損害に対する補償
第68条:損害の原因。第69条:法律違反による損害に対する補償。第70条:反駁できない状況による損害に対する補償。第71条:土地返却により生じた損害に対する補償。第72条:損害の決定。
第4章 開放戦争中に当局から付与された土地、放棄された土地、海外に逃亡した人の土地
第73条:開放戦争中に当局から付与された土地。第74条:開放戦争中に家屋を放棄した人の土地。第75条:共通財産として付与された土地。第76条:海外に逃亡した人の土地。
第IV部 土地使用検査
第77条:土地使用検査。第78条:土地使用検査機関。第79条:土地使用検査の権利及び義務。
第V部 土地問題の解決、有意義な人の特典及び違反者への方針
第80条:管理上の土地問題の解決。第81条:住民の土地問題の解決。第82条:有意義な人への方針。第83条:違反者への対策。第84条:刑罰
第VI部 最終規定
第85条:施行。第86条:期間。第87条:発効。

出典:Nam Theun 2 Hydroelectric Project Social Development Plan, November 2004

(10) 森林法

森林法の規定項目

第I部 一般規則
第1条:森林法の機能。第2条:森林。第3条:森林資源。第4条:林地。第5条:森林及び林地に関する所有権。第6条:森林保全及び拡大の促進。第7条:森林及び林地保全及び管理に関する権利、利益。第8条:森林及び林地保全の義務。
第II部 森林及び森林活動の管理
第1章 森林の管理
第9条:森林の管理。第10条:森林の種類及び地域の調査、配置及び分類。第11条:森林林地利用管理計画。第12条:管理・利用のための森林・林地の地方政府への譲渡。第13条:管理・利用のための森林・林地の個

人・組織への譲渡。第 14 条:森林・林地の変更。第 15 条:自然森林または林地の変更手数料。
第 2 章 森林の分類
第 16 条:森林の種類。第 17 条:保護林。第 18 条:森林保護区。第 19 条:生産林。第 20 条:再生林。第 21 条:荒廃林。
第 3 章 森林活動の管理
第 22 条:森林活動。第 23 条:森林活動の実施。第 24 条:森林活動の登録。
第 III 部 森林及び林地利用規則
第 1 章 木材及び森林由来生産物
第 25 条:森林由来生産物の利用。第 26 条:木材・森林由来生産物の移動。第 27 条:植林した木の伐採。第 28 条:管理された森林からの木材利用及び森林由来生産物の収穫及び自家建設用の村落での利用。第 29 条:木材・森林由来の生産物の輸出。第 30 条:森林・林地の慣習的利用。
第 2 章 製材業及び森林由来の生産物
第 31 条:木材・森林由来生産物処理工場の建設・操業。第 32 条:木材開発機会及び木材処理機械の管理。
第 3 章 植林及び森林再生
第 33 条:植林及び森林再生の目的。第 34 条:植林の促進。第 35 条:荒廃森林の再生促進。第 36 条:植林すべき区域・種。第 37 条:植林及び森林再生計画。第 38 条:植林及び森林再生規制。
第 4 章 水生動物及び野生生物
第 39 条:水生動物及び野生生物。第 40 条:水生動物及び野生生物の狩猟・捕獲許可。
第 5 章 森林の保全
第 41 条:保護森林の保全。第 42 条:森林保護区の保全。第 43 条:森林保護区外の植物、水生生物及び野生生物の保護。第 44 条:樹木種の病害虫からの保護。第 45 条:森林火災の防止。第 46 条:樹木の記念日、魚類・水生生物・野生生物の記念日。第 47 条:森林・林地保護基金。
第 IV 部 森林及び林地利用者の権利及び義務
第 48 条:森林・林地の所有及び使用権取得。第 49 条:森林・林地の所有及び使用権。第 50 条:森林・林地の所有及び使用権の譲渡。第 51 条:森林・林地を所有及び使用する権利。第 52 条:森林・林地から利益を受ける権利。第 53 条:森林・林地を所有及び譲渡する権利。第 54 条:森林・林地を継承する権利。第 55 条:森林・林地を慣習的に利用する権利。第 56 条:森林・林地の賃貸。第 57 条:森林・林地の利用者の義務。第 58 条:森林・林地の所有及び使用権の有効期限。
第 V 部 森林管理及び検査機関
第 1 章 森林管理行政機関
第 59 条:森林及び森林活動の管理行政機関。第 60 条:農業森林省の権利及び義務。第 61 条:農業森林省地方機関の権利及び義務。第 62 条:農業森林省地区事務所の権利及び義務。第 63 条:村の行政機関の権利及び義務。
第 2 章 検査機関
第 64 条:検査の目的。第 65 条:検査行政機関。第 66 条:検査の種類。第 67 条:検査行政機関の権利及び義務。
第 VI 部 有意義な人の特典及び違反者への措置
第 68 条:有意義な人の特典。第 69 条:違反者への措置。第 70 条:教育及び訓練。第 71 条:罰金。第 72 条:刑事罰。第 73 条:追加罰則処罰。
第 VII 部 最終規定
第 74 条:施行。第 75 条:発効。

出典:Nam Theun 2 Hydroelectric Project Social Development Plan, November 2004

