



COORDINATING COMMITTEE FOR GEOSCIENCE PROGRAMMES
IN EAST AND SOUTHEAST ASIA (CCOP)

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Member Country Report of LAO PDR

Submitted by

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(For Agenda Item 3)



**COORDINATING COMMITTEE FOR GEOSCIENCE PROGRAMMES
IN EAST AND SOUTHEAST ASIA (CCOP)**

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ANNUAL MEMBER COUNTRY REPORT

Country:	LAO PDR	Period:	1 July 2016 – 30 June 2017
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1. OUTREACH

The Department of Geology and Minerals (DGM) under the Ministry of energy and mines (MEM) has been a member of CCOP since 22 November 2010. After the community signed for Lao PDR as a member, the DGM always contributes for annual cash about 10,000 USD a year.

This is a great opportunities for the Department of Geology and Minerals to gain lesson learn and experience among the member countries and development partners with many sectors. Since 2010 to now, the skill and knowledge of DGM's technical staff has been improved belong this project, workshop, training, etc.

2. COOPERATION AND PARTNERSHIP

The DGM has four (04) main cooperation and partnership technical sectors are: Geo-Resources, Geo-Energy, Geo-Environment and Geo-Information.

Geo-Resources Sector:

2.1. MINERAL PROGRAMME:

2.1. Summary

Geological survey is reconnaissance work and primary reconnaissance of ore occurrence. Minerals classification is belong to research on geological structure, rough geological map and minerals reserve.

Current acknowledge there are 500 mineral occurrences which are distributed through different parts of Lao PDR includes the gold, copper, lead-zinc, silver, gemstone, tin-wolfram, aluminum (Bauxite), iron, manganese, coal, potassium & sodium chlorite salt, limestone, dolomite, gypsum, barite, facial decoration stone etc.

The Government of Lao PDR keeps rising fund, co-operated fund and AID from other countries for the regional geo-mineralization mapping work at various scale such as: 1:1,000,000 scale for whole country. 1:500,000 scale geological maps (available only in the southern part of the country). 1: 200,000 scale, this is cover with 129,925 km² or 54.86% of whole country's territory. The 1:200,000 geo-mineralization mapping work is continuing corporate with DGMV in the North Vientiane-South Louangphabang area and corporate with CGS in Xayabouly-Luangphabang area in total area 32,179 km². The rest area the

DGM seeks for more AID from the corporate country to support for accomplishing of the remained 74,696 km² or 31.54% of the whole country's territory.

2.2. Annual Review of Individual Technical Activities

Lao-Vietnam Cooperation: 1:200,000 scale map geo-mineralization mapping project in the North Vientiane-South Louangphrabang area.

Laos – China (CGS) Cooperation: Geological Mapping for 1:200 000 scale area is located in the northern Laos and near the Thai-Laos border, with the administrative divisions crossing four provinces of Oudomxay, Saiyabouly, Luangprabang, and Vientiane provinces from west to east. The geographical coordinate of the working area is 100°00'E - 102°00'E, 18°40'N - 20°00'N, and with an area of 16,309 km² and Geochemical mapping survey cover all in Lao PDR.

Lao-Thai Cooperation Project for Sustainable Development of Geological Resources: Geological mapping cross border of Laos-Thai, Training and workshop.

The CCOP-ASEAN Semless Geology Project by GSJ and JICA Training and filed survey in Bokeo Province in Lao PDR for harmonizing geological mapping of Lao-Myanmar cross border.

Geological and Geophysical mapping at 1:50 000 scale cooperation with GTK (Finland)

2.3. Proposed Future Activities

The Department of Geology and Minerals proposes continue to conduct geological and Geochemical mapping at 1/200,000 scale over unmapped area and To undertake geological, Geochemical and Geophysical mapping at 1:50,000 scale in high potential mineral resources areas

2.4. Assistance Required from CCOP in Support of Future Activities

To enhance Geological map with middle scale, we need capacity building or training, budget and experts to support as guide

2.5. Assistance Offered to CCOP/Other Member Countries in Support of Future Activities

To enhance knowledge and skill of staff the DGM prefer on-the-job training rather than pure workshop/training and cooperation Geoscience project. This is offered for both member countries and development partners.

In a period of 1 July 2016 – 30 June 2017, Geo-Resources Sector program:

The DGM had joint one activitie such as:

- KIGAM Training Course on Exploration and Development of Mineral Resources, IS-Geo, Daejeon Korea.

Geo-Energy Sector:

2. ENERGY PROGRAMME:

2.1. Annual Review of Individual Technical Activities (1 July 2016 – 30 June 2017):

For this program the DGM had jointed three activities such as:

- IGAM/ISGeo Regular Training Course on Petroleum Exploration, Development and Production, Daejeon, Republic of Korea.
- CCOP - KIGAM Unconventional Oil and Gas Resources Project: National Coordinators Meeting & Workshop (UCM7), Bangkok, Thailand.
- CCOP - KIGAM Unconventional Oil and Gas Resources Project: National Coordinators Meeting & Workshop (UCM8), Yogyakarta, Indonesia.

2.2. Proposed Future Activities:

Facilitating and enhancing of scientific and technological research and development in energy resources development and geosciences as well as cooperative programme on technology transfer.

2.3. Assistance Required from CCOP/other Member Countries in Support of Future Activities:

Promotion of environmentally and socially responsible energy resources management and development.

3. GROUND WATER PROGRAMME:

3.1. Summary:

Groundwater is related to water resources management and policy. It Keys to sustainability of the economic activities of people in the industrial development in urban and commercial centers in LAO PDR.

3.2. Annual Review of Individual Technical Activities (1 July 2016 – 30 June 2017):

For this program the DGM had jointed Three activities such as:

- GSJ-CCOP-GA Groundwater Project Phase III Meeting, Bali, Indonesia.
- KIGAM/ISGeo Training Course on Groundwater Theory and Practices, Daejeon, Republic of Korea.
- CCOP-KIGAM-UNESCO-MME Workshop on Transboundary aquifer-surface water management in Mekong basin, Phnom Penh, Cambodia.

3.3. Proposed Future Activities:

Establish Ground water management by select some areas for case study mapping of risk on ground water using.

2.3. Assistance Required from CCOP in Support of Future Activities:

This program needs more technical training, workshop to enhance knowledge and skill of staff. Moreover, we lack of fund so we propose CCOP or development part to support on fund and equipment for this activities.

2.6. Other Comments

Nothing to report

Geo-Environment Sector

4. Geo-Hazards Programme:

4.1. Summary:

Nothing

4.2. Annual Review of Individual Technical Activities (1 July 2016 – 30 June 2017):

Nothing

4.3. Proposed Future Activities:

The DGM needs training/workshop and study on Active Fault.

4.4. Assistance Required from CCOP in Support of Future Activities:

The DGM lacks of budget and human resources to convey this type of activities. So, the DGM requests for support from CCOP and development partners to do training and study about active fault.

Geo-Information Sector

5. Geo-Data and Information Management programme:

5.1. Summary:

Geo-Information sector has been established and joint international through Web-GIS.

5.2. Annual Review of Individual Technical Activities (1 July 2016 – 30 June 2017):

In a year the DGM has participated on technical activities below:

- SEAN Web-based Mineral Resources Database and Seamless geology Workshop in Japan

5.3. Proposed Future Activities:

Training deeper on harmonized geology, the way to collect data.

5.4. Assistance Required from CCOP in Support of Future Activities:

In terms of human resources, it is necessary to train our staffs to enhance their knowledge and skills on this sector and funding also are a vital issue. So, we request for support from CCOP and development partners to deal with this problem.

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3. KNOWLEDGE ENHANCEMENT AND SHARING

Activities for enhancing capabilities with area of focus - geo-hazards prediction and mitigation, environmental geology, water resources integrated management, energy and mineral resources sustainable development and geo-information.

3.1. Summary

Minerals Governments are increasingly concerned about the environmental impact of the mining industry and impose severe environmental constraints on mining activities. Only mining of high-grade ores can be economic and then only on very large scales. To find such sites requires great expertise in exploration and thus geological skills. To assess the geochemical impact of mining and the environmental impact of its tailings, geoscientists are needed as well. They need contribute to the development of geo-hazards prediction and mitigation, environmental geology, water resources integrated management, energy and mineral resources sustainable development and geo-information.

3.2. Annual Review of Individual Technical Activities

Remote sensing and aerial photographic techniques were applied to a study of the Active Faults in northern part of Lao PDR.

3.3. Proposed Future Activities

Trenching studies across fault lines have been proposed. These active fault data will be used to produce seismic hazard map of Lao PDR in the future.

3.4. Assistance Required from CCOP in Support of Future Activities

Nothing to report

3.5. Assistance Offered to CCOP/Other Member Countries in Support of Future Activities

To enhance knowledge and skill of staff the DGM prefer on the job training rather than pure workshop/training. This is offered for both member countries and development partners.

3.6. Other Comments

Nothing to report

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4. DATA AND INFORMATION

4.1. Summary

The DGM has joint Geo-Information Sector under CCOP-JICA, which leading to facilitate cooperation, data sharing and efficient exchange of geology data.

4.2. Annual Review of Individual Technical Activities

In a year the DGM has participated on technical activities below:

- CCOP Geo-information Sharing Infrastructure for East and Southeast Asia (GSi) Project.
- ASEAN Web-based Mineral Resources Database and Seamless geology Workshop.

4.3. Proposed Future Activities

- Training deeper to harmonized geology, the way to collect data.
- The DGM hosted of the workshop on CCOP Geo-information Sharing Infrastructure for East and Southeast Asia (GSi) project in a year 2017.

4.4. Assistance Required from CCOP in Support of Future Activities

The way to be good technical staff in this sector must be to require upgrade their knowledge and skills. Nevertheless, funding also is our vital issue. So CCOP Supporting is requested on this point.

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