



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

53rd CCOP Annual Session
16 October - 19 October 2017
Cebu, the Philippines

Member Country Report of CAMBODIA

Submitted by

**Cambodia Delegation
Ministry of Mines and Energy**

(For Agenda Item 3)



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

CCOP Building, 75/10 Rama VI Road, Phayathai, Ratchathewi, Bangkok 10400, Thailand

Tel: +66 (0) 2644 5468, Fax: +66 (0) 2644 5429, E-mail: ccopts@ccop.or.th, Website: www.ccop.or.th

ANNUAL MEMBER COUNTRY REPORT

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

1.1. Summary

During the period from 1 July 2016 to 30 June 2017, most of activities focused on strengthening implementation of mineral related law and regulation through extensive mining supervision and management. Due to the change in government financial system, first phase funding for 2017 allocated programs could not be obtained until mid of June 2017. Examples of activities include metallic mining activities and mine safety supervision, strengthening management in river sand mining, mining safety, elimination of unresponsive construction materials mining become routine. However, many allocated program can start only after July and should be finished by the end of 2017, while some others must be postponed to next year 2018 or must be cancelled. On the contrary, programs under the framework of bilateral China-Cambodia cooperation could continue or started as planned.

Offshore Cambodia is heading toward a development stage and once the production permit is granted it may take approximately 30 months before Cambodia achieves its first oil production. Since the oil price dropped, the exploration activities in onshore Cambodia have been slowed down as well.

1.2. Annual Review of Individual Technical Activities

1.2.1. Mineral Resource Programme

- i) Compilation of 1:500,000 scaled Construction Material Resource Map: The first draft of a Construction Material Resource Map at the scale of 1:500,000 has been compiled. Due to late funding, a ground truth checking, which is needed to finalize the draft, could not be done and must be postponed to 2018.
- ii) Assessment of silica sand resources: Survey on silica sand resources aiming at assessment of potential of silica sand is being done along coastal area of Koh Kong and Preah Sihanouk provinces.
- iii) River sand resource assessment in NE Ratanakiri province: The project aims at evaluation and delineation of the potential areas of river construction sand in upstream of Tonle San River. The survey focusses also on heavy mineral mapping of the studied area.
- iv) Geological Survey in Central West Cambodia: A geological survey project to update the 1:200,000 scale geological map and aiming at strengthening national capacity in field surveying is being carried out in Kampong Speu province. The survey is planned to be accomplished by the end of 2017.

- v) Study on dinosaur footprint: Although a joint survey with DMR allocated for 2017 could not be done due to lack of funding, the Department of Geology has encouraged Liger Learning, an international school, which also gives lectures on geology to conduct basic studies to the site. The result is encouraging and both sides expect more cooperation in this matters.
- vi) Drafting a Mineral Policy: A draft is being discussed and edited. A meeting to finalize the draft is planned to be organized in mid-August. The final draft is hoped to submit for inter-ministerial discussion at the end of this year.
- vii) During the period from March to May 2017, GDMR in cooperation with CC-CGS continued geochemical sampling in Central, Western and Northern Cambodia in an area of 60000 km². 676 national scale samples and 9 global baseline samples were collected. Training on geochemical data treatment was organized in Chengdu, PRC with participation of five geologists from GDMR.
- viii) In cooperation with GDMR, a team from IKG and IRCK survey carried out a survey on hydrogeology and environmental geology in south eastern coastal area and south Cambodia from May 11th to 20th, 2017. A one day training on Hydrogeology and Environmental Geology Mapping was organized during the visit for GDMR's staff who involve in the program.
- ix) Based on the Agreement on Cooperative Project of Marine Geoscience and Coastal Geohazards signed between CGS and GDMR in April 2017, a team from Qingdao Institute of Marine Geology carried out a preliminary survey on coastal area of Cambodia aiming at selection of project target area and discussion on future work plan.
- x) Construction of National Geological Laboratory: A site for construction of the National Geological Laboratory has been selected. A ground breaking ceremony is planned to be done in late September 2017.
- xi) Cooperation in Earthquake study and monitoring: A visit has been paid to the China Earthquake Administration (CEA) to make a way to the cooperation between CEA and MME. An MOU has been drafted. A CEA delegation planned to visit Cambodia in August this year.

1.2.2 Petroleum Programme

i) Exploration Activities

- The Government has just issued the first Production Permit to KrisEnergy for the company to commence producing oil in Block A, Offshore Cambodia.
- Petroleum exploration on Block XV onshore conducted by Petrovietnam has its extension plan to drill a well at near future.

ii) Scientific research

Project on geological survey in onshore areas in Northeastern area of Tonle Sap basin will be conducted this year by geoscientists/petroleum geologists from General Department of Petroleum, Ministry of Mines and Energy with financial support from the national budget. This survey aims at collecting geological data and sample from outcrop and focusing source rock, which are potential for conventional and unconventional resources.

1.3. Proposed Future Activities

In the year 2018, China-Cambodia bilateral cooperation project will continue. Due to slow process of funding, most activities of 2018 are those postponed from 2017. . These activities are:

- i) Ground truth checking to finalize the drafted map of Construction Material Resources is hoped to be done in the end of this year or early next year.
- ii) Geological survey in area bordering Thailand. Some fund was allocated for this activity in 2017. However, due to late funding, the survey is hope to be done in late 2017.
- iii) Study Phnom Srey - Phnom Pros pyroclastic materials. This is a part of geological conservation project. The study is to support a geosite establishment in the area. This activity is postponed to late 2017.
- iv) Study of corundum deposit Pailin province and pyrophyllite deposits of Pursat province. This proposed joint survey DMR-GDMR is postponed to late 2017.
- v) Inventory of Geological site. This activity is an effort to set up an inventory of geological sites in the country and to support the CLMTV geological conservation project. The activity is planned to carry out in late 2017.
- vi) A final geochemical sampling is planned to carry out in NE Cambodia, from October to December 2017, to collect 400 national scale samples and 02 global baseline samples and an area of 40,000 km².
- vii) Coastal geological investigation including sediment sampling, shallow stratigraphic profile and single beam survey will be jointly carried out in coastal area of Cambodia. Sediment discharge and hydrodynamics of Sre Ambel and Andong Toeuk Rivers in Preah Sihanouk province will also be investigated.
- viii) Under the Cooperation Agreement on Hydrogeology and Environmental geology Mapping Project, visits of delegates from IKG is expected to discuss on future work plan and to carry out further investigation.
- ix) Study on mineral potential in Stung Treng province. This study has been carried out under the Memorandum of Agreement between JOGMEC and MME. Based on encouraging result of 2016 survey, JOGMEC proposed a renewal of the MOA with 1 more year extension till March 2018. Further mineral prospecting including geological surveying and geochemical sampling will be undertaken during the term of the agreement.

Beside the above activities, new 4 activities planned for 2018 including:

- x) Hydrogeological survey in NE Cambodia. This a new activity allocated for 2018. The geophysical method will be used in the survey.
- xi) Research and publication of book on “Granitic rocks of Cambodia”.
- xii) Study on Geological Setting and microscopic texture of gold ore in Cambodia.
- xiii) Project on Enhancing Public Awareness on Geology and mineral resources.

1.4. Assistance Required from CCOP/Other Member Countries in Support of Future Activities

Cambodia highly appreciates assistance and support provided by China and Thailand in strengthening national capacity and geology and mineral resources through joint researches and studies under bilateral and multilateral cooperation framework.

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

Nothing to report

1.6. Others Comments

Cambodia welcomes joint cooperation researches with other CCOP Member Countries and/or Cooperating Countries and Organisations.

Programme Contact Person:

Mr. Sieng Sotham,
Tel: (855) 16 486 888.
Email: siengsotham@gmail.com
Mr. Houy Vutha
Phone: 855-12-884 638
Email: vuthahouy@yahoo.com

2. COOPERATION AND PARTNERSHIP

(Activities for enhancing networking and effective collaboration)

2.1. Summary

Nothing to report

2.2. Annual Review of Individual Technical Activities

Nothing to report

2.3. Proposed Future Activities

Nothing to report

2.4. Assistance Required from CCOP in Support of Future Activities

Nothing to report

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

Nothing to report

2.6. Other Comments

Nothing to report

Programme Contact Person:

Nothing to report

3. KNOWLEDGE ENHANCEMENT AND SHARING

3.1. Summary

In 2017, several trainings, both in house and on the job trainings were organized thanks to bilateral cooperation. These trainings contribute a lot to young GDMR staff's capacity enhancement.

3.2. Annual Review of Individual Technical Activities

During the geochemical sampling in Central, Western and Northern Cambodia Cambodian participants have learnt from Chinese specialists, through on the job training, sample collection and preparation. 5 GDMR staff who involve in the project, also gain knowledge on geological and geochemical data treatment through training organized in Chengdu, PRC.

One day training on Hydrogeology and Environmental Geology Mapping was organized by IKG, IRCK for GDMR's staff during their visit in May 2016.

During their visit in April 2017, the delegates from Qingdao Institute of Marine Geology and GDMR organized a one day seminar/training on Marine Geoscience and Coastal Geohazards. Several cases studies in Qingdao were used as example for future marine geoscience studies in Cambodia.

During the period of construction of the national geological laboratory, Guangxi Bureau of Geology, Mineral Prospecting, Exploration and Exploitation is planned to organized studies on laboratory work and testing to Cambodian who will take part in testing work in the future.

Cambodia also enjoyed participation in trainings/seminars organized by AMS under ASEAN and ASEAN+3 programs.

3.3. Proposed Future Activities

To improve capacity in mineral resource management, two training activities are planned to be held in 2018 for non-geologists and for geologists who deal with mineral exploration management and mining. The two trainings are:

- i) Training on general geology to provide non geologist basic understanding on geological processes, phenomena and earth evolution.
- ii) Training on Mineral Exploration methods and UN Classification Framework for Reserves and Resources aiming at providing knowledge and understanding to young geologists on assessment of mineral deposits.

Beside the above, more trainings, both on the job and in house trainings, on marine geoscience, hydrogeology and environmental geology mapping and geochemical mapping are expected from cooperative Chinese agencies under the cooperation agreement framework.

3.4. Assistance Required from CCOP in Support of Future Activities

CCOP is requested to organize a seminar on Management of Artisanal/Small Scale mining.

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

Nothing to report

3.6. Other Comments

Nothing to report

Programme Contact Person:

Mr. Sieng Sotham,

Tel: (855) 16 486 888,

Email: siengsotham@gmail.com

Mr. Chuop Sokuntheara,

Tel number (855) 97 678 7888.

Email : choup_sokuntheara@yahoo.com

4. DATA AND INFORMATION

4.1. Summary

As a part of Japanese Technical Assistance Project on Capacity Building for a Mining Administration in Cambodia, a series of database including geological and mineral database, mine cadaster, licensing, mining revenue is being built with help from JICA's experts. GDMR is working on database security to ensure a safe public access to the database.

4.2. Annual Review of Individual Technical Activities

. With assistance from JICA's experts under the Japanese Technical Assistance Project on Capacity Building for a Mining Administration in Cambodia, a series of database including geological and mineral database, mine cadaster, licensing, mining revenue were built and being updated by concerned technical departments of GDMR. Open source GIS software such as QGIS is used in the database establishment. The project was finished last March, but updating data is being done by GDMR. A server for the database is already set but the Intra Network is not yet connected due to lack of proper measures in securing the safety and confidentiality of sensitive data in the database.

4.3. Proposed Future Activities

Data updating will be continued, while a GDMR Mineral Database Management Guideline and Security of GDMR mineral database will be worked out .

Programme Contact Person:

Mr. Sieng Sotham,

Tel: (855) 16 486 888,

Email: siengsotham@gmail.com