
CCOP - KIGAM Unconventional Oil and Gas Project: Mapping of black shale formation for the prediction of shale resources (UnCon Project)

National Coordinators Meeting and Technical Workshop 3 (UCM3)

Chiangmai, Thailand - 22-24 Sep 2015



Introduction

The Memorandum of Agreement (MOA) between CCOP and KIGAM for the implementation of the CCOP KIGAM Unconventional Oil and Gas Project: Mapping of Black Shale formations for the prediction of shale resources (UC Project) was signed during the 64th CCOP Steering Committee Meeting on 24 March 2015 in Krabi, Thailand.

The Goal of the Project is to create the highest possible value for society from oil and gas resources in order to improve the quality of life of the people in the CCOP member countries. The Project is designed to sustain the experience, technology transfer and institutional capacity building projects in CCOP. This is also consistent with the aspirations of the member countries for a sustainable development of the energy resources and energy security.



The UC Project has already conducted three (3) meetings with technical sessions / workshops integrated in the Meeting's agenda. The 3rd Meeting or UCM3 was conducted in Chiangmai, Thailand on 22-24 September 2015 with 28 participants from the member countries of CCOP.

UCM3 Workshop

The objectives of UCM3 are to use a geology-based assessment methodology to assess the potential of oil and gas shale resources in the CCOP member countries. The technical sessions looked deeper into the various methodologies used in the assessment and included presentations from member countries, sharing the methodologies and workflow of their own assessments. Invited resource persons were from the British Geological Survey (BGS), KIGAM, Pertamina (Indonesia) and LEMIGAS (Indonesia).

The KIGAM presentations of Dr Byeong-Kook Son, Dr In Gul Hwang and Dr Kyungbook Lee covered the EIA/ARI methodology (June 2013) in details with case studies and examples from various applications worldwide. A comprehensive comparison of the EIA/ARI vs USGS methodology was also presented that led to the Meeting's decision to adopt the EIA/ARI method for CCOP.

Dr Ed Hough of BGS presented their assessment methodology, data requirements, the workflow, capacities needed and was also supported with various case studies. Challenges were also identified- both technical and non-technical as well as the identified knowledge gaps. The European approach (carried out by EuroGeoSurveys) to unconventional oil and gas resource assessment was also presented highlighted by the its goals and specific objectives for consistent geological framework, target funding towards knowledge gaps and common methodologies. The understanding, preventing and mitigating the potential environmental impacts and risks of shale gas exploration and exploitation, was also presented in details. The COP-KIGAM UC Project can definitely learn from the BGS approach and EuroGeoSurvey project.

The presentation from Indonesia of Ms Dian Larasati (Pertamina) and Mr Sriwadjaja shared the assessment methodology used in their evaluation of shale gas resource potential in the basins of Sumatra, Java, Kalimantan and Eastern Indonesia. These also included the workflow, data used and also with many case studies showing the calculation parameters and results.

All the presentations and discussions resulted into an enhanced understanding of the shale resource methodologies and workflow. There is a better understanding now of the challenges and knowledge gaps in the member countries that will have to be addressed in future UC activities.

Conclusions and The Way Forward

1. The Meeting agreed to adopt the US Energy Information Agency (EIA) / Advance Resources International, Inc (ARI) methodology for World Shale Gas and Shale Oil Resource Assessment (June 2013) as the methodology to use in the assessment of sedimentary basins in the CCOP region.
2. All the participating CCOP member countries present in UCM3 submitted shale samples that will be analyze by KIGAM the results of which will be presented in the next meeting.
3. The participating countries agreed to define their shale basins (hydrocarbons sourced from shale NOT from coal) and identify the lateral extent.
4. The member countries to submit to CCOP TS by 22 April 2016 the following:
 - A. Shale basin maps with coordinates
 - B. Geological cross section of the basin showing the shale horizon.
5. KIGAM will digitize the maps submitted by the member countries and to be ready before the 4th Meeting or UCM4.
6. KIGAM together with CCOP TS will provide a checklist on things to do - to be circulated to all national coordinators.
7. CCOP TS will send provide a progress report to all Permanent Representatives together with a request for data for the Project.
8. UCM4 is tentatively on 10-12 May 2016 in Korea. The suggested agenda are as follows:
 - Training on Quantifying of mineral contents, sample analysis and TOC calculation
 - Presentation and workshop on common method and consistency of data analysis
 - Presentation and discussions on regional tectonics
 - To discuss about the regional knowledge and look into the need for additional funding possibility (if there is a need to acquire new data)
 - To discuss issues encountered / perceived by the member countries.

A field trip was organised by CCOP TS and DMF to geological monuments in Chiangmai and vicinity and also to places of cultural interests.

