
CCOP CO₂ Storage Mapping Program (CCS-M)

Training Course on Sequence Stratigraphy (*coded T6*)

Phnom Penh, Cambodia

25-29 April 2016



Introduction

CCS-M T6, training course on sequence stratigraphy was conducted by the CCOP Technical Secretariat specifically for the young geoscientists of Cambodia, Lao-PDR, Myanmar, Philippines, Thailand, Timor-Leste and Vietnam. The course looked into the concepts and practical applications of sequence stratigraphy for petroleum exploration and mapping of potential reservoir for CO₂ geologic storage. The course involves both lectures, mini projects, and workshop formats with exercises to emphasise the recognition and correlation of sequences stratigraphic surfaces on well log cross-sections, seismic transects and outcrop profiles. A team of experts from PETRONAS, Malaysia conducted the training course at the Sunway Hotel, Phnom Penh. A 1-day geological field work was also included in the agenda.

Participants

36 participants from Cambodia, Lao-PDR, Myanmar, Philippines, Thailand, Timor-Leste and Vietnam actively participated in the training. The number also includes the resource persons from Malaysia and CCOP Technical Secretariat. The participants are mostly involved in the CCS-M Program and UnConventional Oil and Gas Projects, currently the 2 main regional capacity building project on climate change and energy in the CCOP Technical Secretariat.



The distinguished guests at the opening ceremonies were as follows:

1. HE Dr Men Den - Deputy-Director General, General Department of Petroleum (GDP), Ministry of Mines and Energy, Cambodia
2. Dr. Adichat Surinkum - Director, CCOP Technical Secretariat

Both encouraged the active participation of all participants in the training course and to take advantage of the expertise provided and shared by PETRONAS, Malaysia to CCOP.

The course agenda was designed so that the participants will be able to have a better understanding of the concepts, methodology, application and workflow of sequence stratigraphy. The course also included many group exercises. Towards the last day of the

training, the work groups were given the task to test the work flow and make a mini-project.

The course topics covered:

1. Sequence Stratigraphy- Concepts & Application
2. Methodology
 1. Biostratigraphy
 2. Chronostratigraphy
 3. Well Logs & Parasequences
 4. Seismic Facies Application
3. Carbonate sequence stratigraphy
4. Exercises and Mini-Projects.

Summary and the Way Forward

The Sequence Stratigraphy course will help the member countries in better understanding of their sedimentary basins. Identifying the presence of potential reservoir and seal is paramount in determining the basins potential for geologic storage of CO₂. Fluvial reservoir heterogeneity on connectivity have important implications in estimating geological storage capacity for CO₂. Follow up training courses would look into the integrity of seal and reservoir pairing.

The participants are encouraged to apply and replicate the sequence stratigraphy workflow that was used in the training to their own basin study. These includes, among others, data preparation, seismic sequence analysis flow, and the use of standard colour codes and terminologies.



A 1-day field trip was organised by DGP to Bokor National Park that is about 200 km south of Phnom Penh. The road cuts to the the top of the mountain park offers a good view of fluvial strata of Jurassic to Cretaceous sediments.

