

**CCOP-DANIDA**  
**Institutional Capacity Building Project ICB-CCOP1**  
**1<sup>st</sup> Bangkok Meeting on Sulu Sea – East Sabah Basin &**  
**Yinggehai – Song Hong Basin Case Study**  
**10-11 August, 2006, Bangkok, Thailand**

**Report on proceedings and discussions at the Meeting**

**Date and Venue:**

The meeting was held on 10-11 August, 2006, at Holiday Inn Silom Bangkok, in Bangkok, Thailand.

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Local Organizer: CCOP TS

**Participants:**

Sixteen (16) geoscientists from 5 CCOP Member Countries: China, Malaysia, The Philippines, Thailand and Vietnam attended the meeting.

The represented agencies/institutes were:

- ❖ Qingdao Institute of Marine Geology (CGS, Qingdao), China
- ❖ Guangzhou Marine Geological Survey (CGS, Guangzhou), China
- ❖ China National Offshore Oil Corporation (CNOOC), China
- ❖ Petronas, Malaysia
- ❖ Department of Energy (DOE), Philippines
- ❖ Department of Mineral Resources (DMR), Thailand
- ❖ Department of Mineral Fuels (DMF), Thailand
- ❖ Vietnam Petroleum Institute (VPI), Vietnam
- ❖ Geological Survey Denmark & Greenland (GEUS), Denmark
- ❖ CCOP TS

The total participants of the meeting is twenty-six (26), detailed list of participants is attached as Annex 1.

## **Program:**

The detailed program of the meeting is provided as Annex 2.

## **Background and Purpose of the Meeting:**

The outputs of case studies of the basin scale research are coming out soon according to the original work plan and agreed framework for each case study. Since it is a cross-border cooperation project, the case study host partners need to work together for merging their individual outputs. In an effort to address this issue, an additional meeting is organized in Bangkok, Thailand. During this common working session, the cross-border partners will focus on merging their outputs in forms of maps well log data, stratigraphic columns and more. They will fine-tune their cooperation work plan, focusing especially on the petroleum system analysis and play assessment of the joint case study.

The following tasks were set up for the meeting:

1. Present the mid-term report and check the outputs together
2. Merge the outputs together
3. Discuss the current issues and make the proposal of solving them
4. Setup the work plan for next steps

## **Record of the Proceedings and Discussions at the Meeting:**

We are honored to invite Mr. Somsak Potisat, Permanent Representative of Thailand to CCOP, Director-General of the Department of Mineral Resources Thailand to give his opening speech. Mr. Somsak Potisat delivered his heartily welcome to the participants from the CCOP Member Countries. In his speech, he emphasized that the ICB-CCOP1 Project was not only to strengthen the capacity of the public authorities of CCOP Member Countries in assessment of their country's hydrocarbon resources but also to promote regional cooperation through sharing of information and knowledge in the joint conduct of geoscientific study of cross-border geological basins that contribute to the better understanding of the petroleum systems for assessment of its hydrocarbon potentials. He also believed that the ICB-CCOP1 could be one of the most fruitful cooperation projects of CCOP. Finally, he expressed his sincere thanks and appreciation to the Royal Danish Government for its valuable support to the ICB-CCOP1 Project. Then he declared the opening of the meeting (Annex3 Mr. Somsak Potisat's speech).

In the following, Mr. Chen Shick Pei, Director of CCOP TS gave his welcome address on behalf of CCOP. He extended a warm welcome to all participants from six nations. He expressed the deep appreciation to Mr. Somsak Potisat, Permanent Representative of Thailand to CCOP, Director-General of the Department of Mineral Resources Thailand, for giving his valuable time to be with the participants to grace the opening ceremony and to deliver the opening speech. He highlighted that the ICB-CCOP1 Project has made good progress in the past one and a half year

since the commencement of the project. Those include the joint scientific work on the cross border case studies and the series of meetings that facilitate the study to be carried out; conduct of training course, holding of the first seminar and conduct of joint field work in Sabah, Malaysia, Hainan Island, China and in the Hanoi Trough area in Vietnam as well as the award of post graduate research grants. He hopes that the project activities and its outputs will benefit the Member Countries. The project output must be of use and can contribute to the petroleum resource development of the region. All the Case Study Member Countries are equally committed to use the best data and information in the case study so that the scientific deliverables represent the result of better integration and greater enhancement of the latest and best knowledge of the petroleum systems in the region. All these will contribute to attracting investment for the sustainable development of the hydrocarbon potentials. This cross border case study model could well serve as the model for case studies of other CCOP projects in the future.

He also expressed his sincere thanks to the Royal Danish Government's generous support for this project, Mr. Ioannis Abatzis, Representative of Denmark to CCOP, Senior Advisor of the Geological Survey of Denmark and Greenland (GEUS) for his continuing efforts in rendering useful advice and guidance for the project and Project Coordinator and CCOP TS staff's hard work for carrying out this activity. Finally, he expressed his best wishes for the success of the meeting (Annex 4 Mr. Chen Schick Pei's speech).

After the opening ceremony, the meeting continued with a presentation of updated information of the implementation of the ICB-CCOP1 Project by Mr. Liu Liquun, who gave also a status of the current progress of the project. He briefed the work plan of the second half year of 2006 and 2007. The purpose and task of this meeting were also highlighted.

Then the meeting drew on to the mid-term country report section. Four case study host countries presented the outputs of the basin scale research step of the case study.

Dr. Allagu Balaguru from Petronas as one of research team members of Sulu Sea-East Sabah basin case study, made the presentation on the current achievement of the case study from Malaysia side. His introduction includes the outputs of metadata establishment, regional geology, basin evolution study, stratigraphy of Sandakan Sub-basin and field trip as well as the work plan of sequence stratigraphy and seismic facies analysis. The presentation is full of the informative maps, figures and pictures with sufficient preparation. This presentation is highly appraised.

Subsequently, Mr. Guillermo H. Ansay, National Coordinator of Philippines to ICB-CCOP1, from Department of Energy, Philippines reported the case study progress in Philippine side. The presentation covered the following topics:

- ❖ Metadata Construction
- ❖ Regional Geology, most focused on the interpretation of the seismic cross-section
- ❖ Magnetic Map
- ❖ Structural Map of Seabed, Late Miocene (L2), Mid Miocene and Basement
- ❖ Work plan on Petroleum Systems Analysis and Play Assessment

During his presentation, he also mentioned the challenges of the project. Due to the lack of

manpower, data constraint and time limitation, it resulted in delays in execution of the work programs. The package of mapping software to generate the case study maps is requested by him.

Dr. Cai Feng, from Qingdao Institute of Marine Geology, under his capacity of National Coordinator of China to ICB-CCOP1 Project, delivered a report on the research progress of the project from Chinese side. His presentation is mainly focused on the progress on the project implementation, including following matters:

- ❖ Mid-Term Report
- ❖ Meta Data
- ❖ Interpretation of the Seismic Lines
- ❖ Structural map
- ❖ Profile of Lithology and Stratigraphy
- ❖ Field Work

He presented all the outputs of the committed works during the previous workshops. He also raised some issues that happened during the correlation with their Vietnamese counterpart. He proposed to solve the issues during the following afternoon meeting.

After Dr. Cai's presentation, Dr. Nguyen The Hung from Vietnam Petroleum Institute, reported that the work on the Vietnamese side was conducted. His presentation included the following outlines:

- ❖ **Data**
- ❖ **Seismic Interpretation**
- ❖ **Stratigraphy**
- ❖ **Conclusion**
- ❖ **Proposal**

He presented that all works have been conducted by Vietnamese side, such as regional geology study, basin evolution analysis, structural style based on seismic cross-section interpretation, time to depth curve calculation and typical geological cross-section establishment. He also requested the budget for supporting the case study.

During the afternoon session of the workshop, the participants were divided into two groups according to the two joint case studies. The participants from Thailand also separated into two groups to involve in the discussion of correlating and merging the outputs. The Malaysia and The Philippines group intensively worked on merging the outputs of the Sulu Sea-East Sabah basin case study. One map was generated immediately. They encountered the problem on merging the other layers of maps because the maps they brought were with the different domains (time and depth). Some previous selected seismic lines were readjusted during the discussion. Finally, they made the common understanding on carrying out the final common map and basin modeling work plan (Annex 5).

The Yinggehai-Song Hong case study group correlated the interpretation of selected seismic cross-section, well column, velocity curve, and structural map in time. This face to face discussion helped them to exchange the geoscientific views on the case study. The discussion

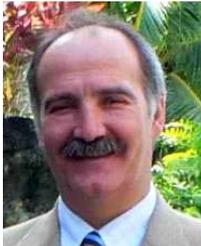
was toward solving the differentiation of their understanding and interpretation. Finally, they agreed to generate a common stratigraphic column, common velocity curve. Vietnamese side would adjust interpretation accordingly to accomplish two unfinished structural maps in time. The two cross-sections had been selected for the next step basin modeling (Annex 6).

Most of the tasks of the meeting have been done. We are glad to see the fruitful outputs from cross-border joint case studies through the mid-term country reports from the case study host countries. Their generous contributions are highly appreciated. During the meeting, the geoscientific views have been exchanged through face to face discussion. More common understanding on specific issues of the case study have been obtained. The efficient cooperation pathways have been identified through the meeting. All these progresses should be congratulated to the cross-border case study host countries since this is the first time to have them cooperate for capacity building within the CCOP Member Countries. The progress is obvious. On the other hand, we have to see the weakness of it. The National Coordinators of the ICB-CCOP1 Project have insufficient communications due to their heavy daily working and tight time schedule. This leads the difficulties of merging the outputs during the meeting although they worked very hard on it. Most of the case study partner agencies have shortage of manpower and budget to support the case study. It causes the progress of the case study to be a little bit behind the original schedule. The weakness should be mended through common efforts. The less and inefficient communications between the National Coordinators and research team members should be improved by this kind of face to face open discussion. China and Vietnam requested another meeting in Qingdao, China to follow up the Bangkok Meeting to carry out the final common output for the basin scale study period. Their proposal was accepted considering the necessity of it. Meanwhile, the Malaysia and The Philippines also requested another meeting toward the end of this year for conducting merging the outputs of the case study. The proposal is under consideration too. Due to the limitation and constraint of the ICB-CCOP1 Project budget, there is no additional budget to allocate for supporting the case study host partner agencies and purchasing additional software. However, we will try to save some budgets from scheduled activities to support the project case study to ensure the implementation of the case study.

## Annex 1

**CCOP-DANIDA Institutional Capacity Building Project ICB-CCOP1  
Sulu Sea—East Sabah Basin & Yinggehai-Song Hong Basin Case Study Meeting  
10-11 August 2006, Bangkok, Thailand**

### DISTINGUISHED GUESTS

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2) MR. IOANNIS ABATZIS 	Representative of Denmark to CCOP Senior Research Geophysicist Interactive Interpretation, Section Leader Department of Geophysics, Geological Survey of Denmark and Greenland (GEUS), Øester Voldgade 10, DK-1350, Copenhagen K, DENMARK Tel: (45) 3814 2516, Mobile: (45) 2030 7012 Fax: (45) 3814 2050, E-mail: <a href="mailto:ia@geus.dk">ia@geus.dk</a>

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<p>18) DR. NGUYEN THE HUNG (<b>OWN COST</b>)</p> 	<p>Expert on Seismic and Geophysical Data Interpretation  E-mail: hungnt@vpihn.pv.com.vn</p> <p>Vietnam Petroleum Institute  Trungkinh, Yenhoa, Caugiay, Hanoi, Vietnam,  Tel: 84-4-7843061  Fax: 84-4-7844156</p>

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## Annex 2

**CCOP-DANIDA Institutional Capacity Building Project  
ICB-CCOP1  
Sulu Sea—East Sabah Basin & Yinggehai-Song Hong Basin Case  
Study Meeting  
10-11 August, 2006, Bangkok, Thailand**

### Program

#### Day 1: 9 August

Arrival of Participants / Check-in Hotel

18:30 Welcome Dinner

#### Day 2: 10 August

08:30 Registration

CCOP TS

09:00 Opening Ceremony:

*Opening Address by Mr. Somsak Potisat,*

Permanent Representative of Thailand to CCOP,

Director-General, Department of Mineral Resources

*Welcome Remarks by Mr. Chen Shick Pei,*

Director of CCOP Technical Secretariat

09:30 Group Photo

09:45 Coffee/tea break

10:00 Introduction

10:10 Briefing on ICB by Mr. Liu Liquan

10:30 Presentations by the Malaysia, Philippines, China and Vietnam delegations

Outputs of the case study during the basin analysis period

Sulu Sea-East Sabah Basin

Mr. Robert Wong Hin Fatt /

Research team member

Sulu Sea-East Sabah Basin

Mr. Guillermo H. Ansay /

Research team member

Yinggehai-Song Hong Basin

Dr. Cai Feng /

Research team member

Yinggehai-Song Hong Basin

Dr. Nguyen Trong Tin /

Research team member

(20 minutes each)

12:00 Lunch Break

- 13:30 Divided into two groups for merging the individual output and structural map
- 15:00 Coffee/tea break
- 15:15 Continue discussions
- 17:30 End of afternoon session
- 18:00 Dinner in the hotel
- 20:00 Discussions on work plan for basin modeling
- 22:00 End of Day 2

**Day 3: 11 August**

Fieldtrip to Ratchaburi and Samut Songkhram Province

**Day 4: 12 August**

Check-out, flight back home

## **Annex 3**

### **OPENING SPEECH BY PERMANENT REPRESENTATIVE OF THAILAND TO CCOP, Director-General of the Department of Mineral Resources, *MR. SOMSAK POTISAT***

**At the Opening Ceremony of the CCOP-DANIDA Institutional Capacity  
Building Project ICB-CCOP1, Sulu Sea-East Sabah Basin &  
Yinggehai-Song Hong Basin Case Study Meeting  
10 August 2006  
The Holiday Inn Silom Hotel, Bangkok, Thailand.**

**Mr. Ioannis Abatzis, Representative of Denmark to CCOP,  
Mr. Chen Shick Pei, Director of CCOP Technical Secretariat,  
Mr. Liu Liqun, ICB-CCOP Project Coordinator  
Participants from the CCOP Member Countries  
Ladies and Gentlemen**

Good morning

On behalf of the Permanent of Representative of Thailand to CCOP and the host country, it is a great pleasure for me to heartily welcome the distinguished participants from CCOP Member Countries to the CCOP-DANIDA Institutional Capacity Building Project ICB-CCOP1, Sulu Sea-East Sabah Basin & Yinggehai-Song Hong Basin Case Study Meeting, today.

I hope that all of you had a pleasant journey and have been enjoying your stay in Thailand. I hope, in addition to the substantive and fruitful discussions which will take place by the conclusion of this meeting, that all of you take the opportunity to enjoy what the resort of Bangkok has to offer.

We are all aware that the objectives of the ICB-CCOP1 Project are not only to strengthen the capacity of the public authorities of CCOP Member Countries in assessment of their country's hydrocarbon resources but also to promote regional cooperation through the sharing of information and knowledge in the joint conduct of geoscientific study of cross-border geological basins that contribute to the better understanding of the petroleum systems for assessment of its hydrocarbon potentials.

Beside the technological benefit, the project can contribute to the promotion of the hydrocarbon potential development of the geological basins in the CCOP region as well as to encourage joint exploration and development and attract investment from the oil and gas industry. For those goals and objectives, I believe that the ICB-CCOP1 project could be one of the most fruitful cooperation projects of CCOP.

I am certain that, with this meeting, all the geoscientists from the research team members of the case study host countries and the participant countries, will have an excellent opportunity to discuss and learn more knowledge in geology, techniques, technologies and earn experience of these outputs.

On this occasion, I would like to express my sincere appreciation and graceful thanks to the Royal Danish Government for its valuable support to the ICB -CCOP1 Project and to extend our heartfelt thanks to all of those who make this day possible. And I would particularly like to thank the CCOP Technical Secretariat, particularly Mr. Liu Liqun, our ICB-CCOP1 Project Coordinator for organizing this seminar.

I hope in the spirit of close cooperation among our CCOP Member Countries, we will significantly contribute to our future cooperative effort.

Finally, I wish you all a fruitful meeting, a nice stay in Thailand and a safe journey on your trip back to your countries.

DANIDA Institutional Capacity Building-I declare the the CCOP ,On this special occasion Song Hong Basin Case Study-Yingehai &East Sabah Basin -Sulu Sea ,1CCOP-Project ICB  
Thank you .Meeting open!

## **Annex 4**

### **WELCOME SPEECH BY DIRECTOR OF CCOP**

#### **TECHNICAL SECRETARIAT**

#### **MR. CHEN SHICK PEI**

**At the Opening Ceremony of the CCOP-DANIDA Institutional Capacity  
Building Project ICB-CCOP1, Sulu Sea-East Sabah Basin &  
Yinggehai-Song Hong Basin Case Study Meeting  
10 August 2006  
The Holiday Inn Silom Hotel, Bangkok, Thailand.**

**Mr Somsak Potisat, Director General, Department of Mineral Resources, Permanent  
Representative of Thailand to CCOP  
Mr Ioannis Abatzis, Representative of Denmark to CCOP, Senior Advisor GEUS  
Distinguished guests, resources persons, participants  
Mr Liu Liqun, ICB-CCOP 1 Coordinator  
Ladies and Gentlemen**

Sawasdee karp and Good Morning

On behalf of CCOP, I would like to extend a very warm welcome to everybody to this Sulu Sea-East Sabah Basin and Yinggehai-Song Hong Basin Case Study Meeting under the ICB-CCOP 1 Project. In this august opening ceremony this morning, we would like to express our deep appreciation to Mr. Somsak Potisat, Director General, Department of Mineral Resources, and Permanent Representative of Thailand to CCOP, for giving us his valuable time to be with us to grace this opening ceremony and to deliver the opening speech. I am also pleased to see that this meeting is so well attended. We have very strong representations from the Case Study Countries, as well as from Thailand. This shows your keen interest, commitment and support for the project activities.

As you are probably aware, the ICB-CCOP 1 project is now at the half way mark of its project life. More than 1 ½ years have already elapsed since the commencement of the project. I am pleased to say that with the support of all the participating Member Countries, especially the Case Study Host Countries, the project have made good progress given its inherent complexity. All the activities are being carried out according to plan. These include the joint scientific work on the cross border case studies and the series of meetings that facilitate the study to be carried out; conduct of training course, holding of the first seminar and conduct of joint field work in Sabah, Malaysia, Hainan Island, China and in the Hanoi Trough area in Vietnam as well as the award of post graduate research grants.

As you are aware, the main objective of the project is to promote understanding and cooperation among countries in the region that can contribute to prevention diplomacy and regional harmony,

thus facilitating regional economic development. Judging by the success of the activities mentioned above, we are well on track to attain this principal objective. The continued interest and commitment of the Member Countries to support the project activities for the rest of the project life will guarantee that this objective will be fully achieved and make the impact as expected.

In return, we hope that the project activities and its outputs will benefit the Member Countries. We are in full agreement with your idea that the project output must be of use and can contribute to the petroleum resource development of the region. We are especially encouraged to note that all the Case Study Member Countries are equally committed to use the best data and information in the case study so that the scientific deliverables represent the result of better integration and greater enhancement of the latest and best knowledge of the petroleum systems in the region. These deliverables we hope will contribute to attracting investment for the sustainable development of the hydrocarbon potentials. This cross border case study model could well serve as the model for case studies of other CCOP projects in the future.

To conclude, we would like to thank the ICB-CCOP 1 National Project Coordinators and their colleagues for their commitments and diligence in getting all the materials ready and carried out the necessary work in preparation for the discussion of merging the information and knowledge across the border for the 2 Case Study areas in this meeting. We also thank Mr. Liu Liquan, the ICB-CCOP 1 Project Coordinator for the efficient coordination of the project, and the staff of the CCOP Technical Secretariat for their hard work in the overall arrangement for this Meeting.

On behalf of CCOP, we would like to thank the Royal Danish Government through the Royal Danish Embassy in Bangkok for the generous support for this Project.

Before I end, I would, once again like to thank Mr Somsak Potisat for his interest and support and for his gracious presence in this ICB-CCOP 1 Case Study Meeting. Our appreciation also goes to Mr. Ioannis Abatzis, Representative of Denmark to CCOP, Senior Advisor of the Geological Survey of Denmark and Greenland (GEUS) for his continuing efforts in rendering useful advice and guidance for the project. I would also like to thank our CCOP Member Countries, the national project coordinators and their colleagues for their cooperation, support and participation in the project activities and the case studies.

I wish you all a successful Case Study Meeting. Have an enjoyable field trip and a pleasant stay in Thailand.

Khob Khun Krap and Thank you

## Annex 5 Minutes of the Sulu Sea-East Sabah Basin Case Study

### CCOP-DANIDA Institutional Capacity Building Project ICB-CCOP1, Sulu Sea-East Sabah Basin & Yinggehai-Song Hong Basin Case Study Meeting 10 August 2006

#### Phase 1-Basin Scale Study: Meeting in Bangkok on 10-11 Aug 2006

##### The works have been done during the meeting:

Work tasks	Structural Map (time-depth)	Cross Section	Remarks
Basin scale study step	Seabed (L1)	C-C' B-B' (Both on Malaysian side only)	Horizon trace unto seismic section:  1. Seabed 2. 8.6 Ma 3. 11.6 Ma 4. 15.5/16.2 Ma 5. 20.5/28.5 Ma (Basement)

##### The works have been agreed for the next steps during the meeting:

Work tasks	Structural Map (depth structure map)	Structural Cross Section	Remarks	Deadline
Basin scale study step	1.Late Miocene (L2) 8.6Ma 2.Mid-Miocene (L3) 15.5Ma 3.Basement (L4) 28.5Ma (CI: 100m / 200m) (Scale 1:500000) 4.Magnetic basement map  *All maps are to be converted to depth by the Philippines.	A-A' B-B' C-C' Y-Y' (Phillipines side)	Seismic lines agreed to be changed on Philippines side. B-B' (DPS93-8/API94-29) A-A' (SS-011)  Seabed depth map to be digitized by Philippines.  Magnetic basement map to be merged with Philippines side, maps provided by Philippines side. (CI:500m)	Q4 2006
2D basin modeling	Basin modeling to be conducted on A-A', B-B' and C-C' (Details to be discussed further.)		A-A' is basement high on Malaysian side. C-C' possibly basement high on Philippines side. Output of basin modeling: migration pathway and maturity map	Q1 2007

## **Annex 6      Minutes of the Yinggehai-Song Hong Basin Case Study**

### **CCOP-DANIDA Institutional Capacity Building Project ICB-CCOP1, Sulu Sea-East Sabah Basin & Yinggehai-Song Hong Basin Case Study Meeting 10 August 2006**

#### **Phase 1-Basin Scale Study: Meeting in Bangkok on 10-11 Aug 2006**

1. The names for the following 5 seismic horizons were unified
  - SF: Sea Floor
  - SH2: Top Pliocene
  - SH3: Top Miocene
  - SH4: Top Middle Miocene
  - SB: Basement (from seismic and gravity data interpretation)
2. The T.W.T.s of the SH2, SH3 and SH4 seismic horizons were compared and correlated at the cross points of 3 composite seismic sections
3. Gravity data Maps were combined with seismic data to compile a regional Basement Depth Map within the study area
4. It was agreed to establish a unified Time - Depth Curve for the whole Yinggehai -Song Hong Basin
5. It was agreed to establish a common Generalized Stratigraphic Column for the whole basin.
6. It was agreed to finalize 2 geological cross sections (AA' and CC') on the basis of the interpretation of the selected seismic lines. These lines will be used for the basin modeling and will be finished by the Q1 2007.
7. It was agreed to carry out the process for merging the structure maps, concrete schedule as follow:
  - a. Continue to finish structure maps SH2, SH3, SH4 in Time and in Depth after correcting again about the seismic interpretation, concretely
    - Before 14/August: Finish SH3 in Time, send to Dr. Cai Feng
    - Before 21/August: Finish SH2 and SH4 in Time, send to Dr. Cai Feng
    - Dr. Cai Feng will convert these maps into depth and finish them before 26/August.
  - b. Next Monday (14/ August.), Mr. Tong Chuanxin will send to Dr. Hung the VSP data of Chinese wells. Then, Dr. Hung will send back Time -Depth Curve for Song Hong -Yinggehai basin to Mr. Tong Chuanxin and Dr. Cai Feng before 18/August.
  - c. We will make Isopach maps (before 25/August.):
    - Pliocene Isopach Map: between SH2 and SH3
    - Upper Miocene Isopach between SH3 and SH4
  - d. Qingdao meeting will be held from 28-29 August. We will check all the results what have been done.
  - e. The joint case study work plan will be discussed during the Qingdao meeting.



**INSTITUTIONAL CAPACITY BUILDING IN CCOP COUNTRIES,  
PHASE 1 (ICB-CCOP1)**



***Group photo of all the ICB-CCOP1, Bangkok Meeting participants***



***The opening ceremony of the meeting was held at Holiday Inn on 10<sup>th</sup> August, 2006.***



**Mid-term country reports presentation by  
case study host countries: China, Malaysia, The Philippines, and Vietnam**



**Geoscientists from our CCOP Member Countries discussion during the meeting**

