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Coordinating Committee for Geoscience Programmes in East and Southeast Asia (CCOP)



45th CCOP ANNUAL SESSION AND 52nd STEERING COMMITTEE MEETING 23-28 and 29-30 November 2008

The 45th Annual Session and the 52nd Steering Committee Meeting of the Coordinating Committee for Geoscience Programmes in East and Southeast Asia (CCOP) was held at the Pullman Raja Orchid Hotel, Khon Kaen, Thailand, on 23-28 and 29-30 November 2008, respectively. The meeting was hosted and organized by the Department of Mineral Resources (DMR), Ministry of Natural Resources and Environment and the CCOP Technical Secretariat (CCOP TS) in cooperation with the Department of Mineral Fuels (DMF) and Department of Groundwater Resources (DGR).

The 45th Annual Session was attended by representatives from Member Countries, Cooperating Countries, Cooperating and Corresponding Organizations, as well as staff of the CCOP TS and the DMR who provided all the necessary conference services. Furthermore, representatives of Lao PDR, Timor-Leste and Finland were in attendance as observers.

IN THIS ISSUE:

Activity Highlights; Technical Activities; Special Report; New Publications; Calendar of Events.



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The CCOP Newsletter, issued biannually, is a publication of the Coordinating Committee for Geoscience Programmes in East and Southeast Asia (CCOP). First issued in 1974, this newsletter's main purpose is to keep readers abreast with information of CCOP concerns and interest, to disseminate information of CCOP activities and projects either in progress or to be implemented, as well as to publish short scientific papers or notes concerning recent discoveries and new findings.

Articles or information in this Newsletter may be copied, summarized or translated into any language provided that acknowledgement is made and a copy of said print sent to CCOP.

Contributions are invited from all interested persons and organizations, whether or not associated with CCOP, in the following forms:

- Concise and informative newspaper clippings with date and sources;
- Announcement of meetings, seminars, field trips, or publications relevant to CCOP's scope of activities;
- 3. Articles on any subject related to geoscientific investigations in the region. Results or progress reports of scientific or technical work are welcome and will be published under the authors' name as a scientific paper or notes. Reports should not exceed 5,000 words in length including diagrams and references.

Diagrams for publication should be clear and drawn to fit an A4 size full page. As space is limited, authors are urged to consider the relevance of all illustrations, tables and diagrams. Photographs can be included where necessary. The Editor reserves the right to reject or edit any articles submitted for publication in the CCOP Newsletter.

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"CCOP thanks all Contributors for their support to the CCOP Newsletter"

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Cambodia, China, Indoresia, Japan, Republic of Korea, Malaysia, Papua New Guinea, The Philippines, Singapore, Thailand, Timor-Leste and Vietnam.

Cooperating Countries:

Australia, Belgium, Canada, Denmark, Finland, France, Germany, Japan, The Netherlands, Norway, Poland, Russian Federation, Sweden, United Kingdom and United States of America.

Cooperating Organizations:

ASCOPE, CIFEG, CPC, UN-ESCAP, EuroGeoSurveys, GETECH, IOC, IOMAC, IUGS, PETRAD, UNEP, UNESCO and The World Bank.



ACTIVITY HIGHLIGHTS



Opening Ceremony: (from left to right: Mr. Satien Sukontapongpow, Prof. Dr. David Prior, Mr. Apichai Chvajareanpun, Mr. Nataphon Wichienprerd, Dato' Yunus Abdul Razak, and Dr. Hee-Young Chun)

The opening ceremony of the 45th CCOP Annual Session commenced with the welcoming remarks by the Honorable Governor of Khon Kaen Province delivered by the Honorable Vice Governor, **Mr. Nataphon Wichienprerd**. Vice Governor of Khon Kaen Province. **Mr. Satien Sukontapongpow**, Deputy Director-General, DMR, delivered the special message of Director-General of DMR.

Opening messages were delivered by **Mr. Apichai Chvajareanpun**, Deputy Permanent Secretary representing the Minister of Natural Resources and Environment; **Dato' Yunus Abdul Razak**, Chairman of the CCOP Steering Committee; and **Dr. David Prior**, Chairman of the CCOP Advisory Group.

The meeting elected **Mr. Satien Sukontapongpow**, Head of the Delegation of Thailand, to be a Chairperson of the Session; and **Dr. Nguyen Van Minh**, Head of the Delegation of Vietnam, to be a Vice Chairperson. The Representatives from **Malaysia**, **Indonesia** and **Canada**, and **Dr. A.J. Reedman**, Honorary Adviser of CCOP were elected as Rapporteurs.

In the meeting, **Dr. Hee-Young Chun**, Director of the CCOP TS summarized the Progress Report of CCOP including: organizational changes (personnel); the current financial position; technical activities and cooperation; and support from Cooperating Countries and Organizations during the previous year.

After Member Countries, Cooperating Countries and Organizations gave their reports to the meeting, **Dr. Hee-Young Chun** presented the Work Plan for 2009.



The Thematic Session was also held at the 45th CCOP Annual Session on the topic "Geoscience context in response to the current global issues" during 26-27 November 2008. There were over 30 technical presentations presented at the meeting that could be divided into two sub-themes: Geo-resources and Geo-environments.

Vietnam will host the 46th CCOP Annual Session, which will be held in Vung Tau, Vietnam, in October 2009.

52nd STEERING COMMITTEE MEETING



The 52nd Steering Committee Meeting was held at the Pullman Raja Orchid Hotel, Khon Kaen, Thailand, during 29-30 November 2008. Delegates of Member Countries (MC) including: China, Indonesia, Japan, Republic of Korea, Malaysia, the Philippines, Thailand and Vietnam, and Dr. Yoshihiko Shimazaki and Mr. Chen Shick Pei, representing the Advisory Group, attended the Meeting. Also Director and staffs of the CCOP TS were presented.

Dato' Yunus Abdul Razak of Malaysia, Chairman of the Steering Committee, opened the Meeting.

Mr. Preecha Chansiritanon, Permanent Representative of Thailand to CCOP and Director-General of the DMR, welcomed the representatives of the CCOP Member Countries. Dr. Nguyen Huy Quy of Vietnam and Ms. Yoon-Hee Ahn of Korea were elected as Rapporteurs.

In consideration of the political situation occurred in Bangkok at that time, the Meeting carried out discussing only the important matters in the draft agenda.

Dr. Hee-Young Chun, Director of the CCOP TS, presented the following topics for the consideration of the meeting: the status of the project proposals and the new initiatives; CCOP Work Plan and proposed Budget for 2009; proposed Strategic Plan for 2009 Roadmap.

The 53rd Steering Committee Meeting will be hosted by Thailand in Bangkok during the last week of February 2009.



Photograph of the participants to the Thematic Session of the 45th CCOP Annual Session.

CCOP New Membership

The CCOP TS would like to express our warm welcome to the CCOP New Members. The CCOP Steering Committee has accepted the membership of **Finland** as CCOP Cooperating Country, and **Timor-Leste** as CCOP Member Country during the 52nd Steering Committee Meeting.

Photographs of Farewell Dinner and Excursion, CCOP 45th Annual Session, Thailand.



"Ram Wong" or Traditional Thai Dance



Loy Krathong Festival



Singing CCOP's song



Host country performance





CCOP TECHNICAL ACTIVITIES

PROGRAMME FOR ENHANCING PUBLIC PETROLEUM MANAGEMENT (EPPM)

CCOP-EPPM PROGRAMME LAUNCHING SEMINAR IN BANGKOK

9-10 October 2008, Bangkok, Thailand



CCOP-Norway Cooperation Programme for Enhancing Public Petroleum Management of the CCOP Member Countries (EPPM) had been approved by Norwegian Government in July 2008. The program incorporating 3 projects include:

- Petroleum Resource Management with a focus on Natural Gas (P1);
- Natural Gas Field Development and Environmental Issues (P2); and
- Metadata on Natural Gas Resources of the CCOP Region (P3),

These projects will be conducted through case studies, series of workshops, field trips, expert visits etc., aiming mainly on capacity building for CCOP Member Countries. In order to provide detailed information on the Programme content and future plan of activities and to enhance the networking of various agencies in the Member Countries and Cooperating Countries / Organizations that will be involved in the Programme, CCOP had organized EPPM Programme Launching Seminar in Bangkok, 9-10 October 2008.

The Opening Ceremony was graced by: Ms. Anne Lilleren, Minister Counselor of the Royal Norwegian Embassy in Bangkok; Mr. Preecha Chansiritanon, Director-General of the DMR and Permanent Representative of Thailand to CCOP; Dr. Øystein Berg, Managing Director of PETRAD (Norway); Mr. Per Blystad, Senior Advisor/NORAD Project Coordinator, Norwegian Petroleum Directorate (NPD); and Dr. Hee-Young Chun, Director, CCOP TS.



The Signing of the Institutional Cooperation Agreements between CCOP and NPD.



The Signing of the Institutional Cooperation Agreements between CCOP and PETRAD.

During the Seminar, the EPPM National Coordinators, invited experts, coordinators from partner organizations, participants had shared their knowledge and been equipped with background information of Mergui-North Sumatra Basin, the Puguang gas field of China, which will likely be the case studies for the Projects P1 and P2. The participants were updated with detailed information on the Programme's future plan of activities and enhanced the networking of various agencies in the Member Countries and Cooperating Countries/Organizations involved in the Programme. The Institutional Cooperation Agreements between CCOP and NPD and also CCOP and PETRAD were also signed during the Seminar.

EPPM PROGRAMME COORDINATION MEETINGS IN JAKARTA, INDONESIA

29-30 October 2008

Mr. Simplicio P. Caluyong, the EPPM Programme Coordinator, traveled to Jakarta, Indonesia on 28-31 October 2008 for a series of Meetings related to the EPPM Programme with the Indonesian partners: LEMIGAS, BPMIGAS & PERTAMINA (ASCOPE).



Left to right: Mr. Simplicio Caluyong, Dr. Hadi Purnomo, Dr. Ego Syahrial and Mr. Bambang Wicaksono

 Meeting with LEMIGAS, 29 October 2008, Jakarta:

The Meeting was held in the office of **Dr. Ego Syahrial**, Head of Exploitation Research

Programme Division. Also present was **Dr. Hadi Purnomo**, head of LEMIGAS; and **Mr. Bambang Wicaksono**, Head of Exploration

Research Programme Division.

The EPPM Programme Coordinator updated the LEMIGAS of the activities in all sectors of CCOP. The EPPM Programme Coordinator presented the



EPPM Programme and related technical activities. He also urged that LEMIGAS immediately take the lead in organizing the EPPM workgroups. In response, **Dr. Purnomo** reiterated LEMIGAS' strong support to the CCOP activities, particularly in the EPPM Programme. He also thanked CCOP TS for accepting the appointment of **Dr. Syahrial** as national coordinator of Indonesia to the EPPM Programme. The LEMIGAS management will support the EPPM Programme in necessary data and expertise for the North Sumatra-Mergui Basin case study and will host some of the activities under the Programme. LEMIGAS expressed their intention in participating the CCOP Annual Session and Steering Committee Meeting to be hosted by Thailand in November 2008.

- Meeting with PERTAMINA, 30 October 2008, Jakarta:
 - Mr. Simplicio P. Caluyong informed Dr. Putu Suarsana of PERTAMINA and Chairperson of the ASCOPE E&P BDC who hosted the Meeting at his office in the Standard Charter Building, Jakarta on the EPPM Programme. He also reiterated his invitation to PERTAMINA & ASCOPE to participate in the Programme (Project P2: natural gas development and CO_o issues).
- . Meeting with BPMIGAS, 30 October 2008, Jakarta:

The Meeting with BPMIGAS was hosted by **Dr. Abdul Muin**, Vice Chairman of BPMIGAS. Also present are **Mr. Indro Purwaman** and **Ms. Ira Miriawati**. **Dr. Abdul Muin** expressed his full support to the capacity building activities of CCOP under the EPPM Programme. He would also support the use of data for the cross-border case study and will help the Programme to obtain appropriate data needed by the study.

CCOP-PETRAD SEMINARS

PETRAD, International Programme for Petroleum Management and Administration, Norway has been conducting tailor-made courses, workshops and seminars together with CCOP TS and CCOP Member Countries and ASCOPE Members. Continued efforts are being exerted and PETRAD had been particularly resourceful in soliciting support for the seminars requested by the Member Countries.

CCOP-PETRAD-MLR-CNPC-CGS SEMINAR ON HIGH PRESSURE HIGH TEMPERATURE (HPHT) DEVELOPMENT AND DRILLING TECHNOLOGY

24-27 September 2008, Grand Mercure on Renmin Square, Xi'An, China

In the third quarter of 2008, the "Tailor from Stavanger" (PETRAD) in cooperation with CCOP TS, MLR, CNPC (China National Petroleum Corporation) and CGS had organized the Seminar on "High Pressure High Temperature (HPHT) Development & Drilling Technology" in Xi'an, China, from 24-27 September 2008. This is a continuous series of tailor - made seminars which bridges the Norwegian knowledge and expertise to the oil and gas industry in the region (CCOP and ASCOPE Members).





A total of 82 participants (8 females) from China and Malaysia attended the Seminar at the Grand Mercure on Renmin Square, Xi'an, People's Republic of China. The seminar was cosponsored and cost sharing by host country China and PETRAD. Norwegian institutions involved in the seminar included Baker Oil Tools, Schlumberger Drilling and Measurement, Baker Hughes, StatoilHydro, Aker Solutions, Halliburton and Roxar.

During the Opening Ceremony, Mr. M. Nazori Janor, Acting Senior General Manager, PSC Management, PMU, E&P Business, PETRONAS, and Chairman of Organizing Committee, Mr. Christian Halaas Lyster, Chargé d' Affaires, the Royal Norwegian Embassy, Malaysia, and Dr. Hee-Young Chun, Director, CCOP TS, gave Welcome Remarks. The Official Opening Speech and Keynote presentation on "HPHT Reservoir in Malaysia-Prospect Challenges" by Mr. Rahimi Adb Wahab, Senior Manager, Well Engineering, Drilling Department, PCSB, PETRONAS. The seminar was highly successful and met the aimed objective on capacity building, human resource development, technology transfer, and sharing of knowledge.

In this Seminar, Norwegian experts from different agencies and companies came to share Norwegian expertise on the development of the Kristin Field on the Norwegian continental shelf. The Kristin gas and condensate field lies about 240 km from land. The reservoir is located 4,500-4,850 m beneath the seabed in a Jurassic sandstone formation. It ranks as the world's first subsea solution for such extreme conditions of reservoir pressure and temperature - 910 bar and about 170°C, respectively. Nine of the producers were drilled as highly-deviated wells in order to secure production volumes and enhanced value creation for Kristin. The drilling and completing these highly-deviated wells in an HPHT reservoir was pioneering work, and the world's first operation of this kind from a semi-submersible took place on Kristin in the autumn of 2004.

The very demanding conditions at the Kristin Field development resulted in newly developed technologies and operating procedures. The PETRAD seminars supported by Royal Norwegian Government are highly appreciated by CCOP and ASCOPE Members. The seminars are organized upon the requests from these countries. These seminars help CCOP and ASCOPE Members to bridge with Norwegian oil and gas expertise for both human resources development in the region and building foundation for further regional and global cooperation **Dr. Øystein Berg** gave closing remarks and concluded that the 2-day Workshop was a great success organized effectively by Organizing Committee led by **Mr. Mohd Nazari Janor**, Organizing Chairman, PETRONAS. **Dr. Øystein Berg** expressed his appreciation to Guest Speakers from Norway and PETRONAS, as well as distinguished guests, local service provider, all participants and Organizing Committee, for their tremendous effort in this seminar. **Dr. Øystein Berg** then presented certificates to **Ms. Harni Farihah Mohd Safari Lai**, Co-chairman, Organizing Committee, on behalf of all participants.



CCOP-PETRAD-BPMIGAS-INTSOK: A SEMINAR ON "DRILLING, DRILLING SERVICE, INCLUDING HIGH TEMPERATURE - HIGH PRESSURE WELL CONSTRUCTION"

10-12 November 2008, Sheraton Bandung Hotel and Towers, Bandung, Indonesia



CCOP TS, BPMIGAS, PETRAD, and INTSOK organized the Seminar on "Drilling, Drilling Service, Including High Temperature - High Pressure Well Construction" held at Sheraton Bandung Hotel and Towers on 10-12 November 2008. The Seminar was co-sponsored by the host country BPMIGAS, PETRAD and INTSOK.

There were a total of 135 participants from six countries: Indonesia, Malaysia, Singapore, United Arab Emirates, Australia and Vietnam; and organizations (BPMIGAS, Universities, Service Companies, PSCs, and ASCOPE members; PETROVIETNAM and PETRONAS.

During the Opening Ceremony, **Dr. Ir. Djadjang Sukarna**, Deputy Permanent Representative of Indonesia to CCOP, Director of the Geological Research and Development Center, Geological Research and Development Center (on behalf of **Dr. R. Sukhyar**, Permanent Representative of Indonesia to CCOP, Head of Geological Agency, Ministry of Energy and Mineral Resources) gave a Welcome Speech. **Mr. Thomas Mosberg-Stangeby**, Chargé d' Affaires, Royal Norwegian Embassy in Indonesia gave a Welcome Remarks. **Mr. R. Priyono**, Chairman, BPMIGAS then delivered the Official Opening Speech of the Seminar.

Mr. Fajarianto Widiwibowo, Drilling Engineer, Total E&P Indonesia gave an Indonesian Keynote Presentation on "TM-84 HP/HT Well Construction Feedback". Mr. Geir Løklingholm, Chief Drilling Engineer, StatoilHydro, Indonesia Karama, gave a Norwegian Keynote Presentation on "Exploration Drilling in Deep Water in the Makassar Strait".

The objective of this seminar reached the intended target on capacity building, human resource development, technology transfer, and sharing of knowledge. The Seminar covered drilling systems, tools and services, as well as completion and well service technologies, High Pressure High Temperature drilling and completion. These are vital to the success of well drilling and completion operations. Participants highly benefited from sharing their experiences with the speakers through all activities during the Seminar.

There were in-kind contribution by ABB and Aker Solutions on morning and afternoon refreshments and buffet lunch during the 3-day Seminar. StatoilHydro and BPMIGAS organized and sponsored the Welcome Dinner and Farewell Dinner, respectively.

Dr. Øystein Berg, Managing Director, PETRAD, presented the Certificates to representatives from participating companies. **Dr.** Øystein Berg expressed his sincere thanks to all speakers and the organizing team.

Mr. Achmad Luthfi, Deputy Director Planning, BPMIGAS gave a Closing Remarks. He congratulated the Organizing Committee led by Mr. Bambang H. Soewandi, Head of Evaluation and Development Division, BPMIGAS and representative from CCOP TS Ms. Petcharat Sarawisutra for the successful Seminar. BPMIGAS very much appreciated the contribution from Norwegian Government through PETRAD and INTSOK and would like to continue the cooperation and will give strong effort and support on the future PETRAD tailor-made Seminars.

CCOP-GSJ/AIST MEETING ON GROUNDWATER PROJECT

28-31 October, Toyama, Japan



The CCOP-GSJ/AIST Meeting on Groundwater Project was held during 28-31 October 2008 in Toyama City, Japan. A welcome dinner was held on 28 October 2008 in a hotel of Toyama City. Pre-meeting Excursion was held on 29 October 2008.

Dr Atsunao Marui, Geological Survey of Japan (GSJ), AIST; and **Mr. Niran Chaimanee**, Geo-Environment Sector Coordinator, officially opened the meeting.

Reports presented in the meeting include:

- Dr. Narimitsu Ito from GSJ/AIST, Japan, gave a presentation on final results of the sub-ground
 of "Groundwater Environment and Management in the Urban Coastal area".
- Dr. Joo-Sung Ahn from KIGAM, Korea, gave a presentation on the final report of "Groundwater Evaluation Using Monitoring System".

 Professor Dr. He Qingcheng from China Institute for Geo-Monitoring presented the final result of the subgroup project "Groundwater and Land Subsidence Monitoring".

These three reports were accepted as the final products of the projects and will be published from GSJ/ AIST as a technical report. The next stage of the project will be decided through the questionnaires that will be distributed by Dr. Marui shortly.

Participants visited Kansai Electric Power Company to see the management of the Kurobe Dam and its electricity power plants.

INTERNATIONAL CONFERENCE ON ENVIRONMENTAL IMPACT OF TSUNAMI

25-28 September 2008, Collegium Polonicum, Slubice, Poland

CCOP organized the International Conference on Environmental Impact of Tsunami in cooperation with Adam Mickiewicz University (UAM), representative of Poland to CCOP during 25-28 September 2008 at Collegium Polonicum, Slubice, Poland. The Opening Ceremony was conducted by speeches of Professor



Dr. S. Lorenc, Rector of Adam Mickiewicz University and Mr. Niran Chaimanee, Geo-Environment Sector Coordinator, on behalf of CCOP TS. There were 99 participants from 12 countries.

The Conference comprised 2 functions: Technical Presentation; and geological field excursion.

The presentations covered topics on: the environmental impact of 2004 tsunami in Southeast Asia region; the near shore tsunami wave modeling and the mitigation measure for future tsunami and other hazards. The participants intensively discussed and exchanged their knowledge and information during the presentations. The general discussion after the presentation also



A field trip to the Slowinski National Park.

brought the possibility of collaborations among the research groups with multidisciplinary tool and approach. During the conference, CCOP TS also presented two technical papers entitle "CCOP's role of regional organization for tsunami risk reduction and hazard mitigation in Southeast Asia"; and "Post 2004 tsunami immediate-survey and damage assessment along the Andaman Sea Coast, Thailand".

Participants also joined a field excursion trip to Slowinski National Park in order to visit the Coastal Sand Dune as Geomorphic landscape generated by wind during the last glacial period and accretion beaches along the Baltic Sea. **Profesor Dr. Hab Karol Rotnicki**, Poland Coastal Geology Expert from UAM was a field trip leader.

2008 GEOCOAST INDUCTION MEETING

16-18 December 2008, KIGAM, DAEJEON, KOREA



CCOP - KIGAM co-organized the 2008 GeoCoast Induction Meeting: Current Status of Coastal Geohazards in the Southeast and East Asian Countries (under UNDP and MEST support) during 16-18 December 2008 at KIGAM, Daejeon, Korea.

During the Opening of the Meeting, **Dr. Se-Won Chang**, UNDP National Project Manager, KIGAM, gave an Opening Address and **Dr. Hee-Young Chun**, Director of CCOP TS gave a welcome speech to a total of 15 participants.



A field trip to SW Coast of Korea.

The GeoCoast Project aims to promote capacity-building activity of the Southeast and South Pacific countries in order to mitigate or adapt to coastal geohazards under the geological scope. Representatives of each Member Country gave review presentations on coastal geohazards of their own countries. The group then discussed about the future plan and scope of the Project. They have all agreed to organize an International Workshop on Geological roles on

Mitigation and the Adaptation of Coastal Geohazards in Southeast and East Asia Countries in 2009 in Korea.

The group went on to a field excursion on coastal erosion in Southwestern Coast of Korea at Daegwang Beach, Imja Island.



CCOP TS SPECIAL REPORT ON MISSION TRIPS

CCOP TS VISITED GEOLOGICAL SURVEY OF FINLAND (GTK)

13-15 August 2008



CCOP TS visited the Geological Survey of Finland (GTK) on 13-15 August 2008. The delegation of CCOP TS, led by Director Dr. Hee-Young Chun, and the delegation of GTK, led by Ms. Karita Aker, Regional Director, exchanged information about GTK activities in geophysical surveys, geochemical mapping, urban geology studies, GTK advisory role regarding adaptation to the climate change. CCOP TS presented the overview of CCOP and all Sectors, as well as introduced new project concepts, i.e., gas

hydrate R&D; CO₂ geo-sequestration; and deep groundwater development. Both sides have agreed that there are opportunities of partnership for CCOP and GTK in EU funding policy and Finland Government support for CCOP Member Countries.

After the Meeting, CCOP TS visited the Geological Museum of the GTK and had the geological excursion to the National Park and geochemical sampling sites of Finland.

CCOP-TIMOR-LESTE MEETING

8-11 September 2008, Dili, Timor-Leste



Meeting with HE Mr. Alfredo Pires, Secretary of State for Natural Resources (Dili, 9.9.08)



Meeting with Timor - Leste National Petroleum Authority (NPA)

The CCOP TS team of **Dr. Hee-Young Chun**, Director of CCOP TS and **Mr. Simplicio P. Caluyong**, EPPM Programme Coordinator, was on a mission to Timor-Leste on 8-11 September 2008 to visit two national offices: the State of Natural Resources led by His Excellency **Mr. Alfredo Pires**, Secretary of State; and the newly created National Petroleum Authority led by its President **Mr. Gualdino da Silva**.

The main purpose of the visit is to introduce CCOP to the organizations including CCOP's profile, mission/vision, networks, on-going capacity building activities, EPPM Programme, and possible future CCOP-Timor-Leste cooperation. The Meetings agreed on the following items:

- CCOP Membership The office of the Secretary of State Mr. Alfredo Pires expressed his strong interest for Timor-Leste to become a Member of CCOP. He promised to immediately write a letter of intent to become a new member of CCOP.
- National Coordinator to EPPM Programme The Secretary would also appoint the EPPM
 national coordinator who will act as the main contact person for EPPM and all matters related
 to CCOP. (Mr. Amandio Gusmão Soares, Director of State Natural Resources is the national
 coordinator of Timor-Leste).
- EPPM Coordination The national coordinator would participate in the EPPM Programme Launching Seminar that is scheduled on October 2008 in Bangkok. (Mr. Amandio Gusmão Soares, National Coordinator for EPPM).

CCOP - CAMBODIA MEETINGS

16-17 October 2008, Phnom Penh, Cambodia

The CCOP TS team of Dr. Hee-Young Chun, Director, and Mr. Simplicio P. Caluyong, EPPM Programme Coordinator, traveled to Phnom Penh on 16-17 October 2008 for a series of meetings with officials of the General Department of Mineral Resources (GDMR), Ministry of Industry, Mines and Energy (MIME); and Cambodian National Petroleum Authority (CNPA).



Meeting of CCOP TS-officials of the GDMR
 On 16 October 2008, CCOP TS members met Mr. Sok Leng, Director of GDMR and Mr. Sim Sisokhaly, Director of the Department of Mineral Resources Development and updated on all activities in all CCOP's sectors. However, for the benefit of Cambodia, a new Permanent Representative should be immediately appointed.



Meeting of CCOP TS-H.E. Mr. Te Duong Tara, Director-General of CNPA:
On 17 October 2008, CCOP TS members met H.E. Mr. Te Duong Tara,
Director-General of CNPA, and informed on activities of CCOP and the new
EPPM Programme and the importance of the national coordinator. H.E.
Mr. Te Duong Tara gave strong and positive responses to the nomination
of national coordinator, the creation of working groups and welcoming all
communications through his office regarding the EPPM Programme.



Meeting of CCOP TS-H.E. Mr. Ho Vichit, Vice Chairman of CNPA:
 CCOP TS met H.E. Mr. Ho Vichit on 17 October 2008. H.E. Mr. Ho Vichit expressed that he would be happy to be contacted on matters related to CNPA - CCOP cooperation and fully supports the EPPM Programme.

CCOP in OneGeology



OneGeology is an international initiative of the geological surveys of the world and a flagship project of the 'International Year of Planet Earth'. Its aim is to create dynamic geological map data of the world available via the web. This will create a focus for accessing geological information for everyone. The key results of this project are:

- Geological maps from around the globe are accessible on the World Wide Web;
- A new web language has been written for geology which allows nations to share data with each other and the public;
- The know-how to do this is being exchanged so that all nations across the world, regardless
 of their development status, can take part and benefit.

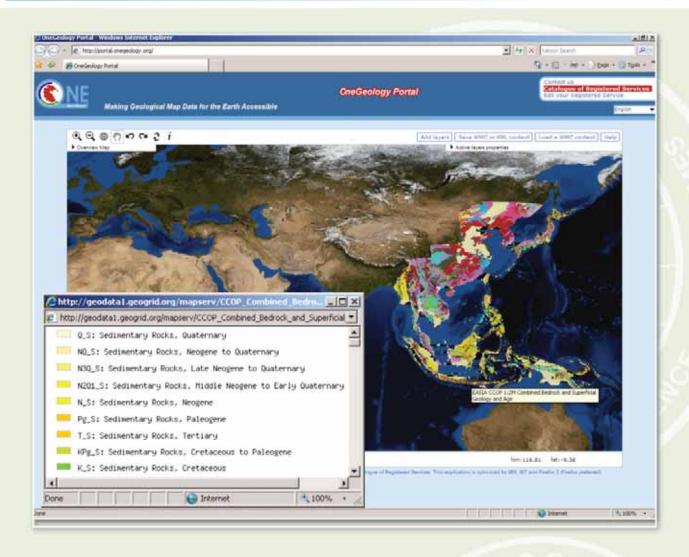
Explaining the significance of this project, Ian Jackson, Chief of Operations at the British Geological Survey, who is coordinating OneGeology explained: "Geological maps are essential tools in finding natural resources e.g. water, hydrocarbons and minerals, and when planning to mitigate geohazards e.g. earthquakes, volcanoes and radon. Natural resources are crucial source of wealth for all nations, especially those that need to develop and build their economies. Identifying geohazards is often a matter of life or death. Other challenges facing all nations in the 21st century include rising sea levels, management of waste (nuclear or domestic) and storage of carbon. Knowledge of the rocks that we all live on has become increasingly important and sharing that knowledge at a time of global environmental change is crucial".

François Robida, Deputy Head of Division, Information Systems and Technologies at the Bureau de Recherches Géologiques et Minières, France, explained: "Today you can go to the OneGeology website and get geological maps from across the globe - from an overview of our entire planet, to larger scale maps of the rocks of individual nations. You also have the ability to hop from this web site to higher resolution applied maps and data on linked national web sites. Participating nations are contributing to a legacy for humankind; by acting locally they are thinking globally".

CCOP supports and joins OneGeology among other international umbrella bodies. To date, there are 100 countries participating this initiative, including the CCOP Member Countries-Cambodia, China, Indonesia, Japan, Korea, Malaysia, Papua New Guinea, The Philippines, Singapore, Timor-Leste, Thailand and Vietnam.

At the 33rd International Geological Congress in Oslo, Norway, August 2008, the OneGeology Portal has been launched, http://portal.onegeology.org/. CCOP's 1-to-2 million scale geological map of East and Southeast Asia and the 1-to-1 million scale geological maps of Indonesia, Japan, Republic of Korea, The Philippines and Thailand have been registered to the OneGeology Portal, and those of Malaysia and Vietnam are soon to be registered.





OneGeology Portal displaying CCOP's 1-to-2 million scale geological map of East and Southeast Asia and its legend.

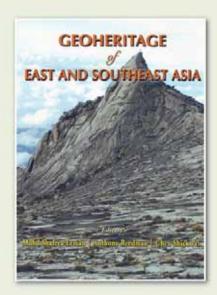
CCOP has been playing an active role in the OneGeology activities. It has representations at the Technical Working Group, Operational Management Group as well as the newly formed Steering Group, composing of 6 members from Africa, Asia, Europe, Latin America, Northern America and Oceania. CCOP is representing for Asia.

CCOP is calling the Asian countries to participate in this initiative, to produce the first digital geological map of the world. You may contact **Dr. Hee-Young Chun**, CCOP's representative at the Steering Group, through this email address - **hychun@ccop.or.th** or **ccopts@ccop.or.th** for more information, or visit the OneGeology website, **http://www.onegeology.org**.



NEW CCOP PUBLICATIONS

CCOP/LESTARI-UKM Book 'Geoheritage of East and Southeast Asia'



The CCOP-Institute for Environment and Development, Universiti Kebangsaan Malaysia (LESTARI-UKM) Book, 'Geoheritage of East and Southeast Asia', dedicated in commemoration of the International Year of Planet Earth (IYPE), is a compilation of selected geoheritage sites in the eight Member Countries of CCOP who have contributed chapters to the book, namely, China, Indonesia, Japan, Korea, Malaysia, The Philippines, Thailand and Vietnam. An introductory chapter on global geoparks network is also included. The book was launched during the 45th CCOP Annual Session in Khon Kaen, Thailand, November 2008 and published in December 2008.

This 308-pages book is printed in color with soft cover, and is available upon request. A soft copy of the book in PDF format will be made available at the CCCP website, http://www.ccop.or.th for free download.

CCOP/LESTARI/IUGS-GEM Book 'Role of Geoscience in Governance for Sustainable Development and Human Security'



The CCOP/LESTARI/IUGS-GEM book, 'Role of Geoscience in Governance for Sustainable Development and Human Security' is the proceedings of the roundtable dialogue on the subject in conjunction with the 43rd CCOP Annual Session in Daejeon, Korea, October-November 2006. This book is a compilation of the papers presented at the dialogue on issues and challenges, the actual situation and practice of a developed and a developing country, the Netherlands and Thailand respectively, and human security aspect of governance. Also included in the book is the review of results of a CCOP survey conducted prior to the dialogue to set the scene, as well as the substantive views of the participants on the role of geoscience in governance for sustainable development and human security, including issues and challenges made during the dialogue. The book was launched during the 45th CCOP Annual Session in Khon Kaen,

Thailand, and published in December 2008. It is also dedicated to the commemoration of the International Year of the Planet Earth (IYPE).

This 129-pages book is printed in color with soft cover, and is available upon request. A soft copy of the book in PDF format will be made available at the CCOP website, http://www.ccop.or.th for free download.



CCOP GEO-RESOURCES "E-NEWS" ISSUE No. 3 HAS BEEN LAUNCHED!



The CCOP Geo-Resources E-News No. 3, October 2008 updates the readers with the outcomes of EPPM Launching Seminar held in Bangkok, from 9-10 October 2008. It also highlights the recent CCOP-PETRAD Seminar on "High Pressure High Temperature (HPHT) Development & Drilling Technology" in China, Mission trip of CCOP TS to Timor-Leste, the participation of CCOP TS in the 33rd International Geological Congress in Oslo and Meeting with Geological Survey of Finland, August 2008. The E-News brought to the readers information on the achievements of the oil and gas industry in the CCOP Member Countries and informs the readers about upcoming events in the CCOP region.

Download:

http://www.ccop.or.th/download/pub/GeoRes_Enews_3_Final.pdf

More publications of high scientific value and quality are available at the CCOP TS office.

To find out more about publications sold at CCOP TS, please visit us at

http://www.ccop.or.th/publication

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Pre-payment must accompany all orders. We accept bank draft in US\$ payable to CCOP. Payment by bank transfer is also accepted. The appropriate mailing charges for Asia (US\$10), Oceania/Europe (US\$12), North America and the rest of the world (US\$15) must be included. Delivery of your order together with an official receipt will promptly make after payment has been received.

All orders of publications should be directed to:

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CCOP CALENDAR OF EVENTS

January - June 2009

Date	Activities	Venue
10-12 February	PETRAD-PETRONAS Seminar on Integrated Operations	Kuala Lumpur, Malaysia
23-25 February	CCOP Strategic Planning Workshop	Pattaya, Thailand
26 February	3rd CCOP Finance Committee Meeting	Pattaya, Thailand
27 February - 1 March	53rd CCOP Steering Committee Meeting	Pattaya, Thailand
3-5 March	CCOP-KIGAM-GSJ/AIST DelSEA-II Workshop on Geological Studies for Coastal Areas, Onshore and Offshore: New Approaches and Concepts	Daejeon, Korea
17-20 March	EPPM Program: P2 Workshop 1: Workshop on development of natural gas resources with high CO ₂ & Carbon Capture and Storage (CCS) in CCOP	Bali, Indonesia
17-18 March	CCOP-AIST Workshop on GEO Grid and Asian Geoinformation infrastructure	Bangkok, Thailand
1-3 April	EPPM Program: P3 Workshop 1: Workshop on Metadata Standards & requirement analysis for the CCOP Natural Gas Database Metadata in cooperation W/CCOP Metadata Project Phase II	Shanghai, China
11-15 May	CCOP-PETRAD-BPMIGAS-INTSOK Seminar on Stranded Gas	Yogyakarta, Indonesia
12-15 May	EPPM Program : P1 Workshop 1:North Sumatra - Mergui Basin cross border case study : geology and tectonic setting	Malaysia or Thailand
27 May - 3 June	Tsunami Phase II Project: On-the-Job-Training & Workshops for Philippines and Indonesia (back-to-back)	May - Manila, Philippines June - Bandung, Indonesia
2-4 June	Working Group Workshop on Application of Geospatial Correlative Integration for Geological Areas in East and Southeast Asia	Bangkok, Thailand
9-12 June	EPPM Program : P3 Workshop 2 CCOP Natural Gas Metadata database structure	Manila, Philippines
22-26 June	BGR-CCOP Workshop on Geological Storage of CO ₂	Bangkok, Thailand
23-25 June	BGR-CCOP Training/Workshop on Natural Disaster Management-Management of Indonesia Georisks; Good Local Governance Approach	Yogyakarta, Indonesia
23-26 June	CCOP-PETRAD-SINOPEC-MLR-CGS Petroleum Resource Assessment	Qingdao, China
9-10 July	CCOP-AIST Kick-off Meeting on Groundwater Project Phase II	Bangkok, Thailand
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"To facilitate and coordinate the implementation of applied geoscience programmes in East and Southeast Asia in order to contribute to economic development and an improved quality of life within the region."

Coordinating Committee for Geoscience Programmes in East and Southeast Asia (CCOP)



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