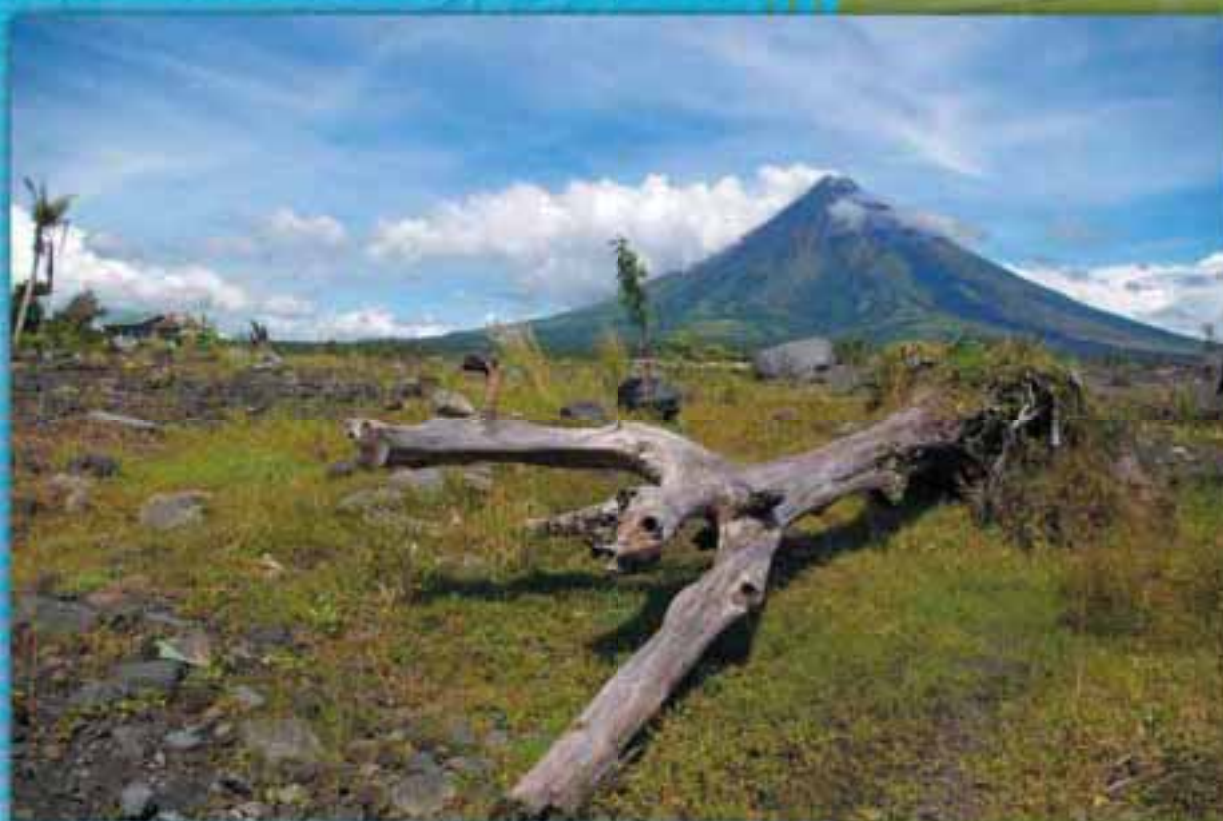


**COORDINATING COMMITTEE FOR GEOSCIENCE  
PROGRAMMES IN EAST AND SOUTHEAST ASIA  
(CCOP)**



**CCOP** Annual Report  
**2007**

**CCOP Technical Secretariat  
BANGKOK, THAILAND**

# Contents

- ☆ Message from the Chairperson
- ☆ CCOP: Vision, Missions and Strategy
- ☆ Management and Organization
- ☆ Highlights for the Year 2007
- ☆ Geo-Resources Sector
- ☆ Geo-Environment Sector
- ☆ Geo-Information Sector
- ☆ Fellowships and Grants
- ☆ Meetings and Missions
- ☆ Publications
- ☆ Financial Highlights
- ☆ List of contacts
- ☆ CCOP Family

## **CCOP TECHNICAL SECRETARIAT**

Thai CC Tower, 24<sup>th</sup> Floor, Suite 244-245  
889 Sathorn Tai Road, Sathorn, Bangkok 10120, THAILAND  
Tel: (66) 0 2672 3080 / Fax: (66) 0 2672 3082  
E-mail: [ccopts@ccop.or.th](mailto:ccopts@ccop.or.th) / Website: <http://www.ccop.or.th>

Picture on cover page : Mayon Volcano



## MESSAGE FROM THE CHAIRPERSON



**The** year 2007 continued to be challenging for CCOP region in terms of energy security, capacity building in resources management, geohazards mitigation, coastal management, impacts of global warming etc. CCOP has conducted many activities in order to help its Member Countries to address these challenges for sustainable development of the region.

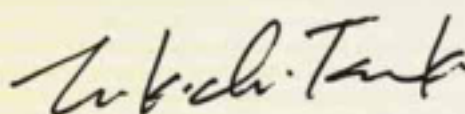
**This** year marked successful completion of the 3-year Institutional Capacity Building in CCOP Countries Phase 1 Project (ICB-CCOP1) supported by the Danish Government. Eleven activities including four dissemination seminars have been conducted within the project plan. The outstanding activity in 2007 was the thematic seminar on Fractured Reservoir Exploration & Production, an additional activity beyond the original work plan to share and disseminate the cutting-edge technology in this field among CCOP Member Countries. CCOP in cooperation with its member countries and cooperating countries was continuing implementation of three bridging activities sponsored by Norwegian Government as a preparation for the Enhancing Public Petroleum Management (EPPM) project. Six CCOP-PETRAD Seminars supported also by Norway have been implemented in collaboration with ASCOPE and oil and gas players in the region. Groundwater Project supported by Japan, Korea and China continued with the 3<sup>rd</sup> Meeting to sum up the results so far with three sub-projects.

**The** major activities within the Geo-Environment Sector were an International Seminar on "Earthquake and Tsunami Hazards Management for Resilient Community", held in Indonesia in the continuing efforts to help Member Countries in planning towards tsunami hazards management; the Workshop within the CCOP-GS/JAIST Project on Integrated Geological Assessment of Deltas in Southeast Asia (DeSEA Project); The final workshop of the CCOP-GS/JAIST Project on Field Workshop for Volcanic Hazards Mitigation held in Philippines.

**As** CCOP's contribution to the UN International Year of Planet Earth (IYPE), CCOP plans to produce a CCOP Geo-heritage Book. For this a Geoheritage Working Group Meeting was co-organized by the CCOP Technical Secretariat, Mines and Geoscience Department Malaysia and National University of Malaysia (UKM), in Kuala Lumpur, Malaysia, on 18-19 July 2007. The work plan was agreed among editors and national coordinators and the book is expected to be published in 2008. Under the auspices of CCOP, an Ocean and Coastal Geological Mapping Workshop was also organized by the Mines and Geoscience Department Malaysia with the Geological Survey of Canada on 12-16 November 2007 in Langkawi, Malaysia. The Metadata, GEO Grid, and OneGeology-CCOP projects were continued with progress.

I am pleased to note that in 2007 CCOP could maintain its high record of activities in all three sectors. On this occasion, on behalf of CCOP, I would like to thank the Member Countries, Cooperating Countries and Organizations, Honorary Advisors and the Community for their generous support, contributions, assistance, guidance and participation in the CCOP activities throughout the year 2007.

I would like to congratulate the Directors of the CCOP Technical Secretariat and the Staff for their efforts in 2007 and wish CCOP achieve even greater success in 2008.



**Dr. Eikichi Tsukuda**  
Chairperson  
CCOP Steering Committee

## About CCOP

**CCOP:** The Coordinating Committee for Geoscience Programmes in East and Southeast Asia

**Vision:** Geoscience for a sustainable future

**Missions:** 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

**Strategic focus:**

- ✦ Enhanced coordination of the geoscience programmes of the national geoscientific institutions of the CCOP Member Countries in order to promote cooperation and to maximize the benefits of programmes of regional significance.
- ✦ Continued human resource development and institutional capacity building in accord with national priorities in order to achieve greater regional self-sufficiency in providing the geoscience inputs to sustainable economic development, sound environmental management and improvement of the welfare of the people of the region.
- ✦ An greater flow of technical information between the Member Countries, Cooperating Countries and Cooperating Organizations of CCOP in order to share such information for their mutual benefit, to learn from each other's experience and to identify further opportunities for cooperation in capacity building.

**Member Countries:** Cambodia, China, Indonesia, Japan, Malaysia, Papua New Guinea, The Philippines, Republic of Korea, Singapore, Thailand and Vietnam.

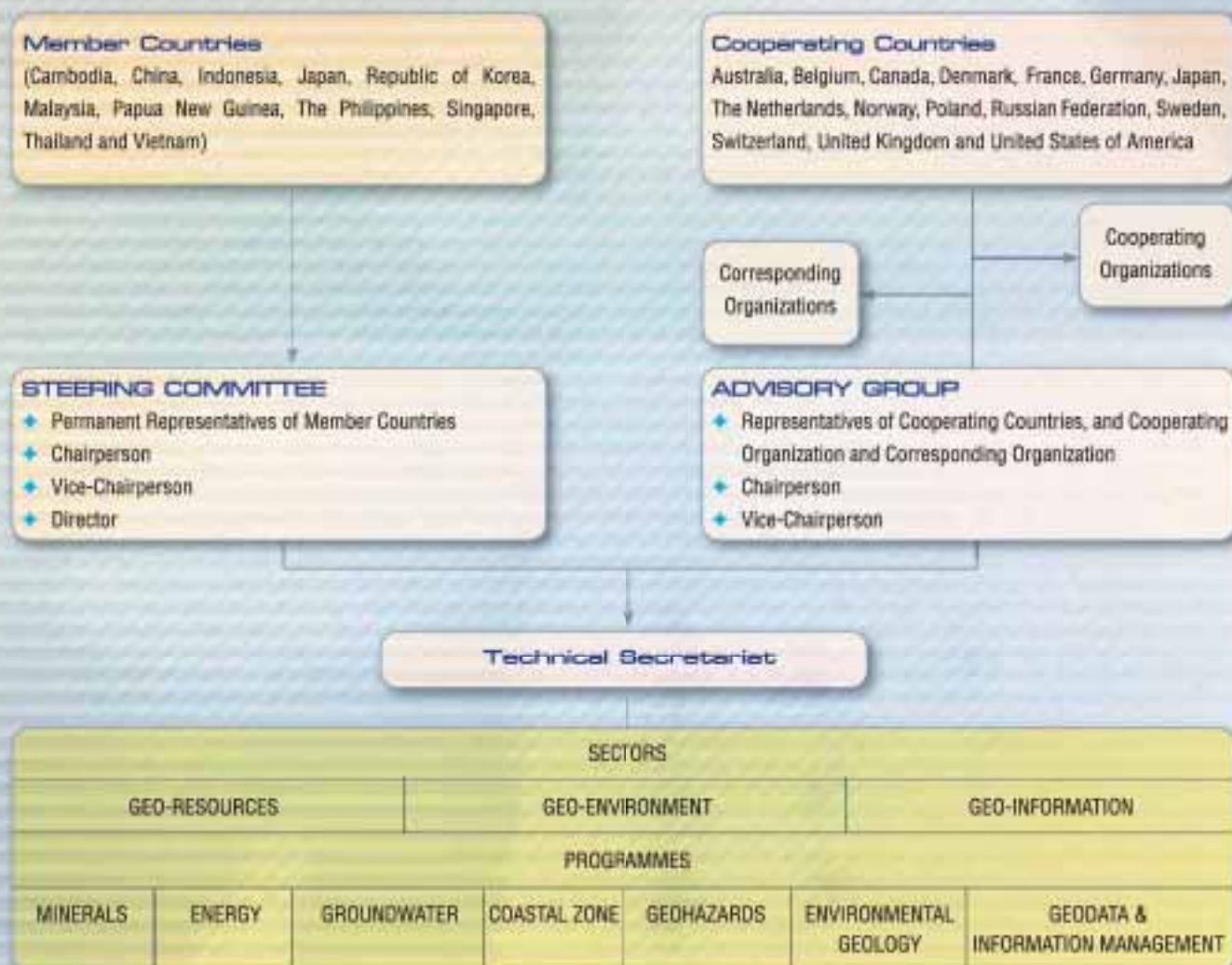
**Cooperating Countries:** Australia, Belgium, Canada, Denmark, France, Germany, Japan, The Netherlands, Norway, Poland, Russian Federation, Sweden, Switzerland, United Kingdom and United States of America.

**Cooperating Organizations:** ASCOPE, CIFEG, CPC, EUROGEOSURVEYS, GETECH, IOC, IOMAC, IUGS, PETRAD, UN-ESCAP, UNEP, UNESCO, THE WORLD BANK.



# MANAGEMENT AND ORGANIZATION

## MANAGEMENT AND ORGANIZATION



As of 31 December 2007, the CCOP Technical Secretariat (CCOP T/S) has sixteen personnel, comprising seven professionals and ten supporting staff. During the reporting period, Dr. Hee-Young Chun had been elected Director of CCOP T/S and succeeded Mr. Chen Shick Pei on 15 June 2007. Mr Liu Liqun ended his term as ICB-CCOP1 Project Coordinator at the CCOP T/S in December 2007.

During the period, the Sector Managers were engaged in strategic management and planning for the scope of work covered by the positions, development of sectoral network with Member Countries, enhancement of management capacity of Technical Secretariat, enhancing marketing of CCOP services and products, assisting in organizing technical activities, preparation and editing reports, publications etc.

Dr. Eikichi Tsukuda, Deputy Permanent Representative of Japan to CCOP, Research Coordinator of the Geological Survey of Japan. AIST continues as Chairperson of the CCOP Steering Committee Meeting from 1 January 2006 - 31 December 2007. Mr. Yunus Abdul Razak, Permanent Representative of Malaysia to CCOP, Director-General, Minerals and Geoscience Department, Malaysia, was elected as Chairperson of the CCOP Steering Committee Meeting from 1 January 2008 - 31 December 2009.

Dr. David Prior, Honorary Adviser, and Dr. Jos de Sonnevile, Representative of the Netherlands to CCOP continued their services as Chairman and Vice-Chairman respectively of the CCOP Advisory Group.

Ms. Nellie James succeeded Mr. James Wanjik as Acting Secretary, Department of Mining, Papua New Guinea, and as the Permanent Representative of Papua New Guinea to CCOP. Mr. Salien Sukontapongpow, Deputy Director-General, Department of Mineral Resources (DMR), Mr. Songpope Polachan, Deputy Director-General, Department of Mineral Fuels (DMF) and Mr. Chote Thrachu, Deputy Director-General, Department of Groundwater Resources, Thailand, were appointed as the Deputy Permanent Representatives of Thailand to CCOP.

This year, Poland had joined CCOP as Cooperating Country. Dr. Witold Szczucin'ski, Associate Professor of Institute of Geology, Adam Mickiewicz University in Poznan', was appointed as Representative of Poland to CCOP.

Prof. Hans-Joachim Kumpel had succeeded Prof. Bernhard Stribny as President of Federal Institute for Geosciences and Natural Resources (BGR) and Representative of Germany to CCOP.

On behalf of CCOP, we would also like to thank Dr. Eikichi Tsukuda for his tremendous efforts in chairmanship of CCOP Steering Committee Meetings during 2006-2007, Mr. Chen Shick Pei for his outstanding service as the Director of CCOP T/S, for 2000-2007, Mr. James Wanjik, Mr. Samai Chiemchindaratana and Prof. Bernhard Stribny for their distinguished services to CCOP.



*Dr. Eikichi Tsukuda received appreciation from CCOP Steering Committee*

## HIGHLIGHTS FOR THE YEAR 2007

### 49<sup>th</sup> and 50<sup>th</sup> CCOP Steering Committee Meetings and 44<sup>th</sup> CCOP Annual Session

The CCOP Steering Committee Meetings are held twice a year to review the programmes and activities of CCOP while the CCOP Annual Sessions assemble the three constituent units of CCOP, the Member Countries, the Cooperating Countries and Organizations and Advisors, for a General Consultative Meeting and country and organization presentations.

**The 49<sup>th</sup> CCOP Steering Committee Meeting** was held in Langkawi, the first Geopark in Southeast Asia on 18-20 April 2007. The Meeting was attended by delegates of the all Member Countries, the Chairperson of the Advisory Group, Director and staff of the CCOP Technical Secretariat.

The Meeting discussed the CCOP Progress Report covering the period 1 January - 31 December 2006, Project Proposals' Status, New Initiatives and Activities Requested by Member Countries, CCOP Workplan and Revised Budget for 2007. Reports on PPM and ICB-CCOP 1 Projects, Preparations for hosting the 44th CCOP Annual Session and the 50<sup>th</sup> Steering Committee Meeting and some other matters were tabled at the meeting.

**The 44<sup>th</sup> CCOP Annual Session and 50<sup>th</sup> Steering Committee Meeting** was held on 21-28 October 2007 in Cebu, the Philippines in cooperation with the Mines and Geosciences Bureau (MGB) of the Department of Environment and Natural Resources (DENR), the Department of Energy and the Technical Secretariat of CCOP.





At the 44<sup>th</sup> CCOP Annual Session, Poland was in attendance as a new Cooperating Country and Mongolia attended as an observer. The Session had the honor of having the Honorable Vice-Mayor of Cebu City, Michael L. Rama, the Honorable Victor Maambong, Chairman of the Provincial Committee on Environment and the Honorable Jose L. Atenza, Jr., Secretary, Department of Environment and Natural Resources attended and delivered speeches. A Thematic Session, organized in conjunction with Annual Session, was held on the topic "Awareness and Cooperation in Geosciences for Safer, Healthier, and Wealthier Communities".

The Steering Committee discussed progress report, financial matters, workplan and the status of current projects and new initiatives and approved the proposed budget for 2008. The Meeting had appointed Malaysia and Papua New Guinea representatives as Chairperson and Vice-Chairperson of the CCOP Steering Committee Meetings for the period from 1 January 2008 to 31 December 2009.



*Dr. Witold Szczucin'ski, Associate Professor of Institute of Geology, Adam Mickiewicz University in Poznan', Representative of Poland to CCOP, at the Welcome Ceremony*



## Technical Cooperation and Activities

### Technical Cooperation

Cooperating Countries and Organizations continued to provide support for CCOP activities in order to contribute more geoscience inputs to sustainable development in the Member Countries. Member Countries also provided in-kind support to CCOP programmes, to maximize the benefits of the support provided by the Cooperating Countries and Organizations. Other Cooperating Countries continued their technical support to a number of CCOP programmes through implementation of bilateral activities with CCOP Member Countries.

#### Summary of CCOP Technical Cooperation with Cooperating Countries and Organizations

Cooperating Country/Organization	Activities
Canada	Cooperation and support for an Ocean and Coastal Mapping Workshop to Member Countries which is available to MC on bilateral basis.
Denmark	Support of the project Capacity Building in CCOP Countries Project Phase 1 (ICB-CCOP 1) in the petroleum sector.
France	Support to the SANGIS and Asian Multilingual Thesaurus through CIFEG. A new project on European-Asian thesaurus is also being discussed.
Japan	Four projects are being supported by GSJ/AIST. Cooperation and support for CASM Asia-Pacific, GEOGrid and OneGeology-CCOP Projects. A proposal developed for a groundwater project for Cambodia with regional component involving CCOP.
Germany	Support for CCOP-BGR Project on Waste Site Searching Process - Geo scientific investigation of Geological Barrier Systems. Cooperation / communication through bilateral projects with Member Countries.
The Netherlands	Assistance in seeking funding support for the CCOP Tsunami Project.
Norway	Support for the Petroleum Policy and Management (PPM) Project. Support of the project on Tsunami Risk Reduction Measures with focus on Land use and Rehabilitation. Through PETRAD, CCOP organized tailor-made bilateral seminars for the CCOP Member Countries. Support for preparation of project document for proposed new project on Enhanced Public Petroleum Management (EPPM). Support for preparation of project document for Phase 2, Tsunami Risk Assessment and Mitigation in Southeast Asia. Support for preparation of the proposal on CCOP-AGWA Workshop.

<b>Cooperating Country/Organization</b>	<b>Activities</b>
<b>United Kingdom</b>	<p>Cooperation with GETECH in the production of aeromagnetic and gravity maps.</p> <p>Organization of a Workshop with GETECH on integration of data for petroleum exploration being discussed.</p> <p>Assistance in seeking funding support for CCOP's tsunami project by DFID, and through EuroGeoSurveys from the EU.</p>
<b>United States of America</b>	<p>Through U.S. Geological Survey, cooperation on the implementation of the Global Mineral Resource Assessment Project (GMRAP) for Southeast Asia.</p> <p>Offered seminars on gas-hydrates and coal bed methane for MC on bilateral basis.</p> <p>Joint organization of a meeting on Seismic Analysis for Earthquakes in South Asia is under discussion.</p> <p>CCOP's interest in USAID supported Indian Ocean Tsunami Warning System Project.</p>
<b>ASEAN Council on Petroleum (ASCOPE)</b>	<p>Maintained close cooperation through jointly organizing seminars, information exchanges for the benefit of the Member Countries. Participation in ASCOPE Joint Committees Meeting to discuss current issues on CCOP and ASCOPE energy programmes.</p>
<b>Circum Pacific Council</b>	<p>Cooperation on the WGGC Project.</p> <p>CCOP cooperated with CPC in the International Energy Conference 2007.</p> <p>New initiative on Fueling the Rim and discussion on a project to develop new modules of RIMSIM game for different scenarios.</p>
<b>Economic and Social Commission for Asia and the Pacific (ESCAP)</b>	<p>Information exchange and discussion, cooperation on technical activities as well as organizing workshops and conferences.</p> <p>CCOP reports to the UN-ESCAP Commission Session and participates in the subcommittee meetings.</p>
<b>United Nations Environment Programme - ISDR</b>	<p>Took part in ISDR regional Workshop on mitigation, preparedness and development for Tsunami early warning system in Indian Ocean Region and</p> <p>Preliminary discussion for the preparation of the first global platform on disaster risk reduction.</p>
<b>International Union of Geological Sciences (IUGS)</b>	<p>CCOP is an Associate Partner in the International Year of Planet Earth initiative.</p> <p>IUGS gave support to CCOP activities. Application for Associate Membership in IUGS is not yet approved.</p>

Cooperating Country/Organization	Activities
<b>International Programme for Petroleum Management and Administration (PETRAD)</b>	CCOP and ASCOPE Members requested seminar topics through PETRAD and CCOP to organized tailor-made bilateral seminars for the priority needs of CCOP and ASCOPE Members. The seminars coordinated by CCOP for the region. 8-week courses (Stavanger, Norway every year in August-October) "Upstream petroleum Policy and Management" and "Upstream Management of Petroleum Development and Operations".
<b>United Nations Educational, Scientific &amp; Cultural Organization (UNESCO)</b>	Information exchange, discussion and cooperation on CCOP technical activities were continued and new initiatives on groundwater discussed.
<b>The World Bank</b>	Seeking for further support of CASM Asia-Pacific coordinated by CCOP for the region.



*CCOP Advisory Group at the Farewell Diner after successful the 44<sup>th</sup> Annual Session.*

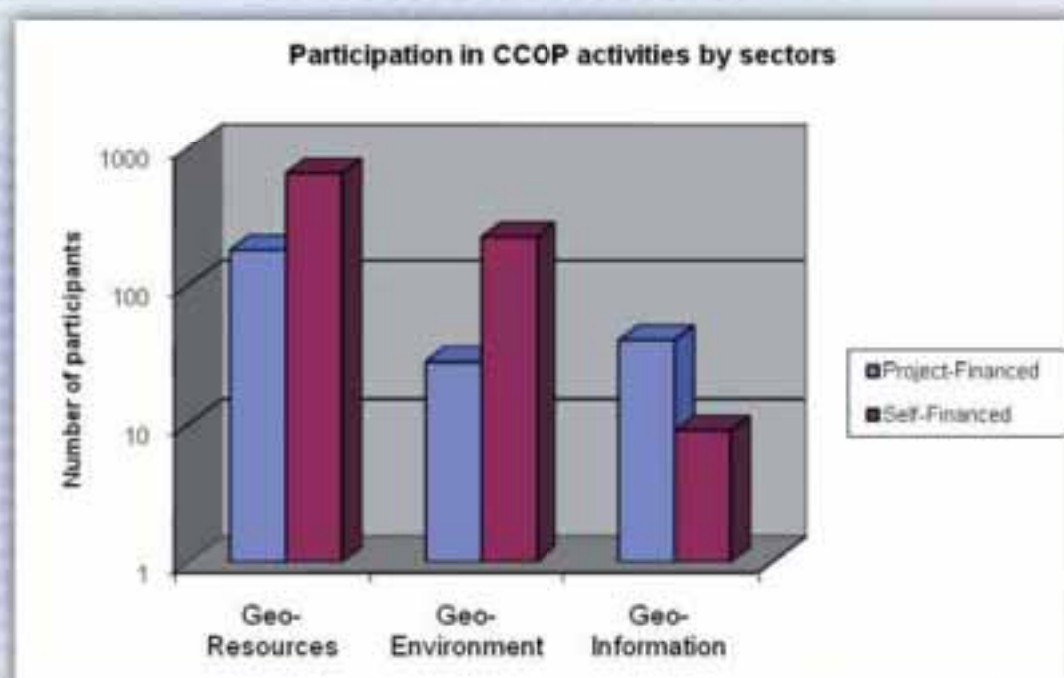
## Technical Programmes and Activities

The Technical Secretariat has achieved the good performance under all three sectors. In 2007, 28 seminars, technical meetings/workshops and trainings were held and attended by 1,325 participants. Aiming at capacity building and technology transfer, these activities were highly appreciated by the participants.

### Summary of CCOP Member Countries' participation and Summary of activities in 2007

Year	Sector	No. of activities	No. of participants
2007	Geo-Resources	22 (*6)	1,005(*529)
	Geo-Environment	4	267
	Geo-Information	2	53
	<b>Total 2007</b>	<b>28</b>	<b>1,325</b>

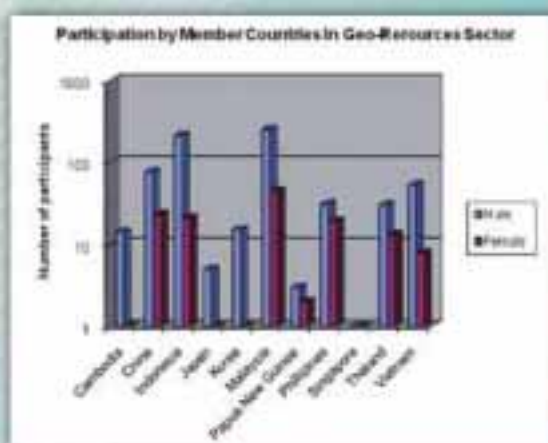
(\* ) CCOP-PETRAD Seminars



## GEO-RESOURCES SECTOR

The economic growth of CCOP Member Countries is largely depending on the supply of geo-resources. The activities of this sector aim to strengthen the Member Countries technical capabilities in establishing the developmental potential of their mineral, energy and groundwater resources and promoting their socially responsible and environmentally sustainable exploration, conservation and development.

Under the Geo-Resources sector, in the reported year 22 workshops and seminars have been conducted. There were 1,005 participants from CCOP Member Countries attended these activities.



### GEO-RESOURCES SECTOR: ENERGY PROGRAMME

Energy security is important issue in economic development of CCOP Member Countries. CCOP activities in the energy programme have continued to be focused on geo-energy resource assessment, evaluation and management.

#### 1) Petroleum Policy and Management Project (PPM)

The Petroleum Policy and Management (PPM) Project was completed in August 2006 with a report available in hardcopy and CDR highlighted by the results and recommendations of the 4 case studies and impact of the Project. The CCOP T/S has also received feedback that the Project is very useful and beneficial to the Member Countries.

The balance of the PPM Project fund was used to support the conduct of additional bridging workshops on the following topics:

- ❑ Workshop on the Practice of Knowledge Management (PKM): a journey to competitive advantage - Thailand, 7-10 May 2007.
- ❑ Opportunities for the Upstream Petroleum Sector of CCOP Member Countries Under the Clean Development Mechanism (CDM) of the Kyoto Protocol - Thailand, 29 May-1 June 2007.
- ❑ Development of a Natural Gas Resources Metadata for CCOP - Chengdu, China, 18-21 June 2007.

A total of 134 participants from 10 Member Countries attended the post-PPM activities with the female participants accounting for 26%. The management representatives from various oil and gas agencies and National Oil Companies in the Member Countries are about 60% of the total participants.

The Norwegian Embassy in Bangkok also had approved the EPPM Bridging Activities which will be conducted during the first half of 2008.

The PPM Project homepage <http://www.ccop.or.th/PPM> provides complete information of the Project and all its activities



*Group photo at the Workshop on the Practice of Knowledge Management (PKM):  
a journey to competitive advantage - Thailand, 7-10 May 2007*

## **2) Institutional Capacity Building in CCOP Countries Project Phase I (ICB-CCOP 1)**

The 3-year Royal Danish government supported ICB-CCOP1 Project started in January 2005 and accomplished by the end of 2007. The long-term objective of the project is to strengthen the capacity of the public authorities within the CCOP Member Countries to assess their countries' hydrocarbon potentials. It involves cross-border case studies in Vietnam-China and Indonesia-Malaysia- Philippines. According to the work plan set up for 2007, the implementation of project activities has been progressing well. All activities scheduled to take place in 2007, have been conducted successfully. A number of additional activities deemed necessary with the progress of the project, such as one thematic seminar, one dissemination seminar and two working meetings have been conducted. Following are activities of the project in this year.

- ❑ The "Sulu Sea-East Sabah Basin & Yinggehai-Song Hong Basin Case Study Manila Meeting" has been conducted successfully from 30- 31 January 2007 at the office of the Department of Energy, Philippines, in Manila, Philippines.
- ❑ The "Sulu Sea-East Sabah Basin & Yinggehai-Song Hong Basin Case Study Workshop" was held on 2-4 March 2007 in Ho Chi Minh, Vietnam.
- ❑ The "Onshore-offshore correlation: Utilization of data from outcrop geology, well logs, core logs and core measurements from core holes for evaluation of offshore stratigraphy and reservoir architecture and property" training and expert visit was conducted on 5-8 March 2007 in Ho Chi Minh and Phu Quoc, Vietnam.
- ❑ The seminar on "Fractured Reservoir Exploration & Production" was held in cooperation with Petro Vietnam and ASCOPE on 16-18 May 2007 in Hanoi, Vietnam.
- ❑ The "Sulu Sea-East Sabah Basin Case Study Kuala Lumpur Meeting" was held in the PETRONAS Visualization and Collaborative Center, PETRONAS Twin Towers on 22-23 May 2007 in Kuala Lumpur, Malaysia.
- ❑ The training course in digital mapping: "From Data Catch to Depth Map, GIS in Hydrocarbon Exploration" was held on 4-7 June 2007 in Bali, Indonesia.

- ❑ The "Song Hong -Yinggehai Basin Case Study Final Report China Meeting" was held on 13 August 2007 in Beijing, China.
- ❑ The "Sulu Sea-East Sabah Basin & Yinggehai-Song Hong Basin Case Study Meeting" was held on 21-22 August 2007 in Phuket, Thailand.
- ❑ The "Seminar on Capacity Building during the Implementation of ICB-CCOP1 Project" was held on 23-25 August 2007 in Phuket, Thailand.
- ❑ The "Sulu Sea-East Sabah Basin Case Study Dissemination Seminar" was held on September 26, 2007 in Manila, Philippines.
- ❑ The "Yinggehai-Song Hong Basin Case Study Dissemination Seminar" was held on 11 October 2007 in Beijing, China.
- ❑ The "Sulu Sea-East Sabah Basin Case Study Dissemination Seminar" was held on 5 November 2007 in Kuala Lumpur, Malaysia.
- ❑ The "Yinggehai-Song Hong Basin Case Study Dissemination Seminar" was held on 8 November 2007 in Hanoi, Vietnam.

Five sets of GIS software, ArcView 9.2 purchased by the ICB-CCOP1 Project, were granted to the five case study host countries, China, Indonesia, Malaysia, the Philippines and Vietnam by the ambassador to support the cross-border case studies.



*The Thematic Seminar on "Fractured Reservoir Exploration & Production", in cooperation with PetroVietnam and ASCOPE, 16-18 May 2007 in Hanoi, Vietnam*

Six sets of mapping software from Denmark, EasyCopy purchased by the ICB-CCOP1 Project, were granted to the five case study host countries and CCOP Technical Secretariat to support the cross-border case studies.

The ICB-CCOP1 Project is a remarkable milestone in the more than 40 years of CCOP's history and that it has set new standards in the form of cross-border cooperation between the CCOP Member Countries, something which has been identified and been admired by other donor organizations which are willing to apply the same model during the implementation of their future development aid activities.

The final project report which included 10 CCOP Member Countries capacity building outputs and two cross-border joint case studies reports with 30 large scale enclosure maps will be published in February 2008.

For more detail information of the ICB-CCOP1 Project may be found at <http://www.ccop.or.th/techdetail.asp?id=31>.

### 3) CCOP-PETRAD Seminars

There are strong needs from the Member Countries in capacity building, human resources development in a wide range of topics related to petroleum industry. The series of tailor-made seminars funded by Norway and organized by CCOP, PETRAD in cooperation with ASCOPE, Government Institutions and National Oil Companies in Member and Cooperating Countries were designed to meet these needs. This series of seminars remained active and successful due to continued efforts exerted by PETRAD in soliciting support for the seminars requested by the Member Countries. The Technical Secretariat and PETRAD are continuously updating the list of topics provided by the Member Countries, which serves as the basis to request for funding support from the Government of Norway.



*CCOP-PETRAD-PETRONAS Seminar on Deepwater Technology, 26-28 November, Johor Baru, Malaysia*

During the reporting period, 6 seminars were held with 529 participants.

- ❑ CCOP-PETRAD-MPE-NPD-PSA Seminar on Petroleum Resources Management Forum in Kota Kinabalu, Malaysia on 22-24 January 2007 completed with 41 participants, 23 papers were presented and discussed with 5 guest speakers from Norway and from the Region.
- ❑ CCOP-PETRAD-PETRONAS Seminar on Pipeline Integrity Management in Kuching, Malaysia on 5-6 June 2007 completed with 88 participants, 10 papers were presented and 2 parallel sessions were discussed with 11 guest speakers from Norway and from the Region.
- ❑ CCOP-ASCOPE-PETRAD Seminar on Human Aspects of Safety in Denpasar, Bali, Indonesia on 12-14 June 2007 completed with 48 participants, facilitated and operated by 4 guest speakers from Norway.
- ❑ CCOP-PETRAD-PETRONAS Seminar on High Pressure High Temperature (HPHT) Development & Drilling Technology, 27-29 August, Labuan, Malaysia.
- ❑ CCOP-NORAD-PETRAD-INTSOK-BPMIGAS Seminar on Deepwater Technology, 5-7 November, Surabaya, Indonesia.
- ❑ CCOP-PETRAD-PETRONAS Seminar on Deepwater Technology, 26-28 November, Johor Baru, Malaysia.

CCOP-PETRAD "TNA" Training Needs Assessment (A diagnostic tool to identify petroleum sector training and institutional requirement) continued to be available. This activity is in cooperation with The Bridge Group and Stavanger University College.

CCOP-PETRAD-AGWA Workshop on Groundwater is under discussion.



## GEO-RESOURCES SECTOR: MINERALS PROGRAMME

### 1) CCOP-USGS Global Mineral Resource Assessment Project

The CCOP-USGS Global Mineral Resource Assessment Project (GMRAP) is part of a 5-year initiative to assess the identified and undiscovered non-fuel mineral resource of the world. Since 2003, three workshops had been conducted for the CCOP Member Countries, in 2003, 2004 and 2005, and the final workshop is planned to be held in 2007. To date assessment for porphyry and sediment hosted copper have been completed and the draft final report completed. The final workshop was scheduled for the year 2008.

### 2) Community and Small-Scale Mining in Asia (CASM-Asia) Project

The CASM-Asia Project, a three-year project from 1 May 2005 to 31 April 2008, is supported by the World Bank in close cooperation with the AIST/GSJ. The objective of the project is to function as a hub for CASM activities through which cooperation network of those engaged or have interest in artisanal/small scale mining can be built and to bridge the artisanal/small miners with the stakeholders, communities, technology and science in the Asia-Pacific region.

During the reporting period, the database has been updated. CCOP/T/S closely cooperated with Mongolian Government for the planning, preparation and implementation of the 7th Annual CASM Conference, 8-12 September 2007 in Ulaanbaatar.

## GEO-RESOURCES SECTOR: GROUNDWATER PROGRAMME

### CCOP-AIST/GSJ Project on Groundwater Assessment and Control in the CCOP Region

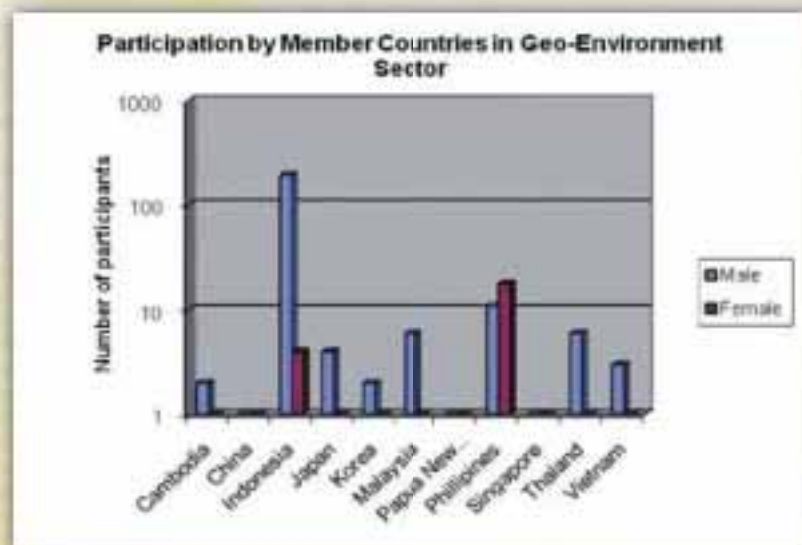
The CCOP-AIST/GSJ Project on Groundwater Assessment and Control in the CCOP Region, originally named Groundwater Assessment along Great River Basins in East and Southeast Asia, is a 5-year project which commenced in April 2004 with the support of the AIST/GSJ. The project aims to evaluate groundwater resources and environments through its monitoring. It is subdivided into 3 sub-projects: (1) Groundwater Environment and Management in the Urban Coastal Area, (2) Groundwater and Land Subsidence Monitoring and (3) Groundwater Evaluation Using Monitoring System. These sub-projects are led by Japan, China and Korea respectively. In 2007, the 3rd Meeting on Groundwater Programme, was held in Rayong, Thailand, from 30 November - 1 December. During the Meeting, the participants were updated on groundwater project activities with interim results of sub-projects reported by leading countries Japan, China, Korea; updated with some groundwater issues in Cambodia, Indonesia, Malaysia, Papua New Guinea, Philippines, Thailand and Vietnam and also were acquainted with some proposals of these countries.



## GEO-ENVIRONMENT SECTOR



The Geo-environment sector's activities were carried out intensively throughout the reported year on subject related to geohazard and geoenvironment programmes with total number of 4 workshops and seminars. Participants of these activities were mainly from CCOP Member Countries and tsunami-affected countries with total number of 300 participants.



### 1) CCOP-AIST/GSJ Field Workshop for Volcanic Hazards Mitigation

With the support of the Geological Survey of Japan, AIST/GSJ, the field workshop series for Volcanic Hazard Mitigation is organized annually since 2004 in CCOP Member Countries. The main objectives of this workshop are to study volcanic hazard mitigation for young volcanologists on understanding different types of volcanoes in Asian countries, and to disseminate outputs of the workshop to the CCOP Member Countries and the public.

Following the third workshop in Bandung, Indonesia in 2006, the fourth and last workshop of the series was held in Quezon City, Philippines on 6-9 November 2007. A total of 32 participants from Center for Volcanology and Geological Hazard Mitigation, Indonesia (CVGHM), Geological Survey of Japan (including Dr. Akira Takada as the Project Leader), Philippine Institute of Volcanology and Seismology (PHIVOLCS) and from Department of Mining, Papua New Guinea.

The total of 15 presentations was covered during the 2-day workshop following with 2-day fieldwork at the areas affected by Mayon Volcano. The workshop and the field work provided a great opportunity for the geoscientists to learn from each other's experiences. Questions and comments raised were mostly focused on the issues related to the methodologies and applied technologies in monitoring of volcanic activities and hazards as well as on how the monitoring agencies interact with the communities living close or within the risk areas. Finally, the bonding of participants would hopefully lead to an enhanced networking among the institutes and the scientists which will benefit to the awareness and adaptability of the public that are vulnerable to the risk posed by the volcanic activities.



### 2) International Seminar on "Earthquake and Tsunami Risk and Hazards Management for Resilient Community"

CCOP Technical Secretariat, in cooperation with the Geological Agency, Ministry of Energy and Mineral Resources, Indonesia organized the tsunami International seminar "Earthquake and Tsunami Risk and Hazards Management for Resilient Community" at Bumikarsa Bidakara Hotel, Jakarta, 2-3 April 2007. Mr. Purnomo Yugiantoro, the Minister of Energy and Mineral Resources kindly gave the opening speech of the Seminar. A total of 182 participants from various Government agencies involved in earthquake and tsunami assessment, disaster risk mitigation and reduction, parochial local authority and regional and international experts attended the Seminar.



The Seminar provided the initial preparatory steps and planning towards the establishment of a comprehensive people-centered hazards management system for the affected countries. This includes the integration of disaster risk consideration into the sustainable development policies, planning and programming at all level, with special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.

A multi-hazard approach to disaster risk reduction should be integrated into the policies, planning and programming related to the sustainable development of the coastal area. Lastly, the building up of basic seismology and education within the country and community is expected in order to respond properly for the future big hits.

In the international roundtable discussion of the seminar, it was agreed that the need to open and share knowledge on earthquake and tsunami risk is essential for a better disaster preparedness, functional early warning system and realistic arrangement. The message for public awareness must be simplified information on the possible risk areas of the region. Finally, the community-based early warning system should be considered by the government of Indonesia.

## GEO-ENVIRONMENT SECTOR: COASTAL ZONE PROGRAMME

### 1) Integrated Geological Assessment of Deltas in Southeast Asia (DeSEA Project)

The CCOP-AIST/GSJ Project on Integrated Geological Assessment of Deltas in Southeast Asia (DeSEA Project) is a 4-year project which commenced in April 2004 with the support of the Geological Survey of Japan, AIST/GSJ. Two main activities were carried out during the report period.

CCOP-AIST/GSJ DeSEA Workshop on Coastal Erosion and Geological Assessment of Delta Areas in Southeast and East Asia was held at CCOP T/S Office, Bangkok, Thailand during 24-25 May 2007. 8 participants from Korea, China, Vietnam, the Philippines, Cambodia, Thailand, Malaysia and Indonesia were invited.

During the workshop, participants presented the status of coastal erosion and mitigation measures existing within their



own countries. The presentation session was followed by one and a half day field excursion along the muddy coast of Chao Phaya River Mouth and the sandy coast of Phetchaburi and Hua Hin, the Gulf of Thailand. This workshop gave a good opportunity on establishing the expert

network on coastal erosion and coastal geology of the region. The content of coastal erosion presentation is limited however lectures from each participating country are giving good opportunity to exchange latest knowledge and updating information on coastal erosion to participants.



The second activity in collaboration between CCOP, Marine Geological Institute of Indonesia (MGI) and AIST/ Geological Survey of Japan (GSJ) was organized in Bandung, Indonesia on 4-6 December 2007 under the title **"2<sup>nd</sup> CCOP-AIST/GSJ-MGI DelSEA Workshop on Coastal Erosion and Geological Assessment of Delta Areas in Southeast and East Asia."** The workshop in conjunction with field excursions was attended by 9 representative participants from Member Countries of CCOP; Indonesia, Japan, Korea, Vietnam, Philippines, Cambodia, Thailand and Malaysia. In addition, 34 local participants from various institutes of Indonesia also attended this workshop.

During the workshop, Keynote address on **An Overview of the Coastal Erosion of Deltas in Southeast and East Asia** was given by Dr. Yoshiki Saito, CCOP-DelSEA Project leader and participants from each member country, except Cambodia, presented the status of coastal erosion and mitigation measures exist within their own countries. Moreover, technical papers on coastal change study in Indonesia were presented by researchers from MGI.



CCOP-AIST/GSJ DelSEA Project plans to publish the scientific papers presented at the two workshops during 2007 in a special issue of CCOP proceeding or international journal within 2008-2009.

## GEO-ENVIRONMENTAL SECTOR: ENVIRONMENTAL GEOLOGY PROGRAMME

### 1) Environmental Analysis Support Programme for CCOP and Other Regions

CCOP has assisted Member Countries and other countries in an advanced chemical analysis "PIXE" for environmental specimens under the "Environmental Analysis Support Programme for CCOP and Other Regions". The programme was approved by the 48<sup>th</sup> CCOP Steering Committee Meeting in 2006.

PIXE stands for Proton Induced X-ray Emission. It is a non-destructive multi-elemental analysis used routinely by geologists, archaeologists, art conservators and others to help answer questions of environment, provenance and authenticity. Quantum theory states that orbiting electrons of an atom must occupy discrete energy levels in order to be stable. Bombardment with proton of sufficient energy produced by an ion accelerator will cause inner shell ionization of atoms in a specimen. Outer shell electrons drop down to replace inner shell vacancies, however only certain transitions are allowed. When a target (sample) is hit with a beam of proton, X-rays of a characteristic energy of the element are emitted in this way from the target. An energy dispersive detector is used to record and measure these x-rays and the intensities are then converted to elemental concentrations.



*PIXE at Nishina Memorial Cyclotron Center of Japan Radioisotope Association*

CCOP Member Countries and other countries with environmental issues can use this programme. They are to prepare environmental incident form, sample list and samples according to our PIXE Manual ([http://casm-asia.ccop.or.th/upload/documents/PIXE\\_manual.pdf](http://casm-asia.ccop.or.th/upload/documents/PIXE_manual.pdf)). Then the form, list and specimens can be sent to Nishina Memorial Cyclotron Center (NMCC) of Japan Radioisotope Association. It is a common facility of which machine time is shared by NMCC and Iwate Medical University Cyclotron Center. Dr. Koichiro Sera, Director of the Center, and his colleague Dr. Jun Itoh voluntarily analyze the samples and send the result back to respective countries. In 2007, they accepted requests from the Philippines and Mongolia. More than eighty samples were already analyzed and the results were sent to the representing agencies.

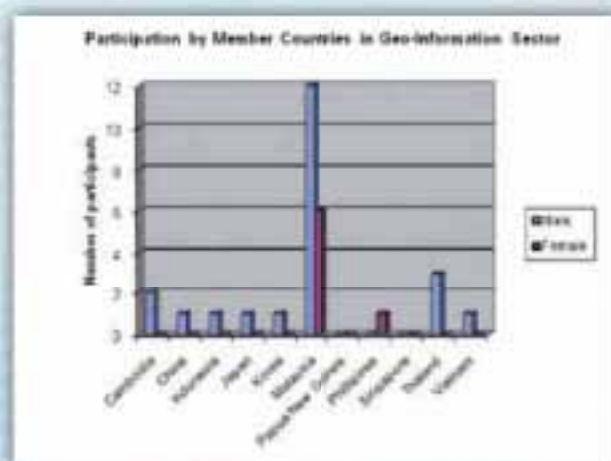
## GEO-INFORMATION SECTOR

In the year 2007, CCOP under its geo-information sector, has carried out 2 activities, with 49 participants from Member Countries. These activities are:

1. CCOP Geoheritage Book Project Working Group Meeting
2. CCOP-JMG-GSC Ocean and Coastal Geological Mapping Workshop

Activities on **Knowledge Management, Mapping and Natural Gas Resources Metadata** have also been carried out. These activities have been conducted and reported under other sectors.

- ✦ Workshop on Practice of Knowledge Management (PKM): a journey to competitive advantage (Pattaya, Thailand, 7-10 May 2007).
- ✦ ICB-CCOP1 Training and Expert Visit, Mapping and Digital Mapping Procedures/GIS in Hydrocarbon Exploration (Bali, Indonesia, 4-7 June 2007).
- ✦ CCOP-PPM 3rd Workshop on Development of Natural Gas Resources Metadata for CCOP (Chengdu, China, 18-21 June 2007).



The **OneGeology-CCOP Project** is a contribution to the global OneGeology Project initiated by the British Geology Survey (BGS) to compile a 1:1M digital geologic map of the world for the International Year of Planet Earth (IYPE).

On-going Projects under this sector include **CCOP Metadata** and **CCOP GEO Grid**.

CCOP has compiled databases throughout the years. These include **CCOP Metadata on Geological Maps**, **SAN-GIS Bibliographic Database** and **GRIDNET**. Sustainability and updating of these databases remains a challenge.

### CCOP Geoheritage Book Project

This project is intended to be CCOP's contribution to the UN International Year of Planet Earth (IYPE). The idea was first raised in Bangkok earlier in 2006 (during "World of Difference Project"), and approved by the 48th CCOP Steering Committee Meeting held in Daejeon. The project was essentially to produce an attractive and informative directory of conservation geo-sites, including entire geo-parks or single protected outcrops, and geological museums in East and Southeast Asia particularly of the CCOP Member Countries.

More information on the project can be found at <http://www.ccop.or.th/techdetail.asp?id=37>.

## CCOP Geoheritage Working Group Meeting

A working group of the project, composing of national coordinators from Member Countries was formed, and had its first meeting on 18-19 July 2007 at the National University of Malaysia (UKM), Malaysia. This was co-organized by the CCOP T/S, Mines and Geoscience Department Malaysia (JMG) and UKM. The main purposes of the meeting are to introduce geoheritage research and development, to be aware of CCOP Member Countries' activities and products related to geoheritage, and to discuss the formulation of guidelines and contents of CCOP Geoheritage Book. Twenty-three (23) participants from CCOP Member Countries and CCOP T/S attended this meeting.

At the end of the meeting, the participants were more familiar with the on-going initiatives and products on geoheritage research and development within the CCOP Member Countries. Also, the contents of the CCOP Geoheritage Book were finalized and the timeframe in the preparation and publication of the book was agreed.



*Participants in discussion during the meeting*

## Ocean and Coastal Geological Mapping Workshop

Under the auspices of CCOP, the Minerals and Geoscience Department (JMG), Malaysia in cooperation with the Geological Survey of Canada (GSC) organized the Ocean and Coastal Geological Mapping Workshop on 12-16 November 2007 in Langkawi, Malaysia. Aside from the Malaysian participants, 1 from Cambodia, 2 from Thailand and 2 from the CCOP T/S were participated the workshop, totaling to 35 participants. GSC provided 3 resource speakers for the workshop.

The 5-day workshop, including the excursion to the coastal mangrove ecosystem in Langkawi, almost completely covered the chain of ocean and coastal geological R&D issues, starting from survey, data processing and interpretation, laboratory analyses, data archives and development of database system and applications for non-living and living resources, hazards management and finally for the Integrated Ocean and Coastal Management. The content of the workshop was found to be very relevant to CCOP Member Countries that would like to develop their capacity in marine geology R&D for the sustainable development of ocean and coastal zones. This is the third Ocean and Coastal Geological Mapping Workshop carried out for CCOP. The first was in China, and the second was in The Philippines. In the discussions with Dr. Pickrill one of the resource speakers from GSC, the GSC shows willingness to continue these workshops on Ocean and Coastal Geoscience R&D on a regular basis in different CCOP Member Countries with continuous updates of latest developments in the field.





*Group Picture taken during the excursion on the fourth day of the workshop.*

## OneGeology-CCOP



The OneGeology, a proposal of the British Geological Survey (BGS), is a truly multi-lateral and multi-national IUGS, UNESCO, CGMW, IYPE and ISCGM initiative to create dynamic and interoperable digital geological map data for the world. Geological Surveys are invited to dynamically 'serve' the data for their territories to a web portal either from their own web server or other host.

The target scale is 1:1 million, but the project will be pragmatic and accept a range of scales and the best available data. The geological map data will be made available as a distributed web service, using the latest web feature mapping approach. The plan is to make it available through GOOGLE Earth and other dynamic map browsers. More information on OneGeology Project can be found at the website <http://www.onegeology.org>.

This initiative is a contribution to the International Year of Planet Earth.

CCOP's involvement with OneGeology Project started with an invitation issued to the CCOP Technical Secretariat to participate the OneGeology Workshop in Brighton, UK held on March 2007. The CCOP T/S Director then joined the workshop, and expressed support to the Project, knowing that CCOP has already a 1:2 million digital geological map. It was then put up as a new initiative to the 49<sup>th</sup> CCOP Steering Committee Meeting held on April 2007 in Langkawi, Malaysia and was approved by the Meeting. Japan, being a Cooperating and Member Country of CCOP, committed its technical support to the Project through its Geological Survey.

In November 2007, National Coordinators for the CCOP OneGeology has been identified, and planning for a kick-off meeting to be held on January 2008 started. The kick-off meeting will be supported by AIST/GSJ, however not all Member Countries can be invited with financial support. The main purpose of the meeting is to introduce the outline of OneGeology Project and to discuss how to organize the project among the CCOP Member Countries.



This OneGeology Project is an opportunity for CCOP to update its digital geologic map, and gain know-how and experience in showing its digital maps to the world through the web as well as in standardizing data making it interoperable among the Member Countries, as well as to the rest of the world.

More information on CCOP OneGeology Project can be found at <http://www.ccop.or.th/techdetail.asp?id=35>.

## CCOP Metadata

The AIST/GSJ supported CCOP Metadata Project which commenced in 2002 ended in March 2007. The project had successfully held its fourth and final workshop in September 2006 in Guangzhou, China. One of the successful outcomes of the Project is the preparation and completion of CCOP Metadata for Geological Maps, which is available on the web at <http://www.aist.go.jp/RIODB/GeoMetaData/ASIA/editQuery.do>.

During the 4th Workshop, a meeting was held by the CCOP Metadata Working Group on the future direction and activities for CCOP Metadata project. It was unanimously agreed that the project is very important as it was recognized that CCOP Metadata is the most important data source for the Organization. The meeting wanted CCOP to continue with the metadata initiative. It had recommended that the metadata project should eventually encompass all disciplines of geoscience. It had further recommended that the Project should be continued with Phase 2.

## CCOP Metadata Phase II

The CCOP Metadata Project Phase II with the financial support of China Geological Survey (CGS) had been proposed and approved by the 48th CCOP Steering Committee Meeting held in Daejeon, Korea on November 2006. It is the objective of this phase to develop a comprehensive CCOP Metadata Standard for Geoscience in conformance with ISO19115 International Metadata Standard. CGS will not only provide financial support, but also resource persons for the project and is more than happy to share their vast experience in metadata development to the CCOP Member Countries.

The first workshop of the CCOP Metadata Project Phase II is under preparation and will be held on 18-20 March 2008 in Hainan, China.

More information on the CCOP Metadata Project can be found at the CCOP website, <http://www.ccop.or.th/techdetail.asp?id=15>.

## CCOP GEO Grid

GEO Grid stands for Global Earth Observation Grid that integrates various kinds of information on the earth. This initiative envisages the application of GRID computing technology in geoscientific researches and projects.

In April 2007, AIST/GSJ dispatched a geologist to the CCOP T/S as Coordinator to lubricate the GEO Grid Initiative at CCOP.

A CCOP GEO Grid Training and Workshop will be conducted in January 2008. The main purpose of the training course is to introduce the outline of GEO Grid and standardization technologies of geologic and spatial data to the key persons of the geo-information of the CCOP Member Countries. This will give the Member Countries common understanding of "what GEO Grid is and how it works?" among the Member Countries as the first step of dissemination and development of the GEO Grid in the CCOP region.

### **CCOP Metadata on Geological Maps**

This metadata base has been compiled under the Geoscience Asian Information Network (GAIN) Project funded by AIST/GSJ. To date, there are about 4,400 metadata records in the clearinghouse, <http://www.aist.go.jp/RIODB/GeoMetaData/ASIA/editQuery.do>. The clearinghouse also includes thumbnails of the geological maps registered.

### **SANGIS Bibliographic Database**

This database has been compiled under the South East Asian Network for a Geological Information System (SANGIS) Programme supported by International Center for Training and Exchanges in the Geosciences (CIFEG) and UNESCO. A server to host this database has been provided to the CCOP Technical Secretariat. This CCOP bibliographic database on geoscience has almost 38,000 records and is web accessible from this link: <http://www.ccop.or.th/sangis>.

### **GRIDNET**

This database has been compiled under the GRIDNET Programme (Geoscience Report and Information Dissemination Network) of CCOP. The GRIDNET Programme aims to ensure that information, reports and other products from CCOP Cooperating Country and Organization's bilateral and other aid-funded research projects relevant to CCOP region are made available to organizations in CCOP Member Countries. The titles available in GRIDNET as well as the web links to the reports/publications of some Cooperating Countries are accessible at the CCOP homepage, particularly at this link: <http://www.ccop.or.th/techdetail.asp?id=21>.

## V. PUBLICATION AND DOCUMENTATION

Fourteen newsletters, proceedings and reports were published during the year 2007. The workshop and seminar reports and proceedings of the projects, Petroleum Policy and Management (PPM) and the Institutional Capacity Building in the Member Countries (ICB-CCOP1) were published at the CCOP website.

### **General Publication**

#### **CCOP Newsletter Vol. 31 No. 1/2 (January-June 2006)**

The CCOP Newsletter presents highlights of activities for the period January-June 2006.

#### **CCOP Newsletter Vol. 31 No. 3/4 (July-December 2006)**

The CCOP Newsletter presents highlights of activities for the period July-December 2006.

#### **CCOP Newsletter Vol. 32 No. 1/2 (January-June 2007)**

The CCOP Newsletter presents highlights of activities for the period January-June 2007.

#### **CCOP Annual Report 2006**

The CCOP Annual Report presents a summary of all the activities of CCOP for the year 2006.

### **CCOP Annual Session Proceedings**

#### **Proceedings of the 43<sup>rd</sup> CCOP Annual Session (Part I)**

Proceedings of the 43<sup>rd</sup> CCOP Annual Session Part I, documentation of the 43<sup>rd</sup> CCOP Annual Session, 29 October -3 November, 2006, Daejeon, Republic of Korea. (Hard-copy & CD-Rom)

#### **Proceedings of the 43<sup>rd</sup> CCOP Annual Session (Part II) - Thematic Session**

Includes papers presented at the thematic session on "New Energy Resources in the CCOP Region – Gas Hydrates and Coalbed Methane" on 1-2 November 2006 during the 43<sup>rd</sup> CCOP Annual Session in Daejeon, Republic of Korea. (Hard-copy & CD-Rom)

### **CCOP Steering Committee Meeting Reports**

#### **Report of the 49<sup>th</sup> CCOP Steering Committee Meeting**

A report on the minutes of the Steering Committee Meeting held in Langkawi, Malaysia on 18-20 April 2007. (Hard-copy)

#### **Report of the 50<sup>th</sup> CCOP Steering Committee Meeting**

A report on the minutes of the Steering Committee Meeting held in Cebu, The Philippines on 27-28 October 2007. (Hard-copy)

### **Technical Activities Reports/Proceedings**

#### **PPM Project**

Proceedings of the PPM Projects' Workshops/Seminars are published in the Web.

#### **ICB-CCOP1 Project**

Proceedings of the ICB-CCOP1 Projects' Workshops/Seminars are published in the Web.

## *PETRAD Seminars*

### **Report of the CCOP-PETRAD-PETRONAS-MPE-NPD-PSA Seminar on Petroleum Resource Management Forum**

A documentation of the CCOP-PETRAD-MPE-NPD-PSA Seminar on Petroleum Resource Management Forum in Kota Kinabalu, Malaysia on 22-24 January 2007. (Hard-copy & CD-Rom)

### **Report of the CCOP-PETRAD-PETRONAS Seminar on Pipeline Integrity Management**

A documentation of the CCOP-PETRAD-PETRONAS Seminar on Pipeline Integrity Management in Kuching, Malaysia on 5-6 June 2007. (Hard-copy & CD-Rom)

### **Report of the CCOP-ASCOPE-PETRAD Seminar on Human Aspects of Safety**

A documentation of the CCOP-ASCOPE-PETRAD Seminar on Human Aspects of Safety in Denpasar, Bali, Indonesia on 12-14 June 2007. (Hard-copy & CD-Rom)

### **Report of the CCOP-PETRAD-PETRONAS Seminar on High Pressure High Temperature Drilling & Development, Management & Technology**

A report of the CCOP-PETRAD-PETRONAS Seminar on High Pressure High Temperature Drilling & Development, Management & Technology, held in Labuan, Malaysia on 27-29 August 2007. (Hard-copy & CD-Rom)

### **Report of the CCOP-NORAD-PETRAD-INTSOK-BPMIGAS Seminar on Deepwater Development Technology**

A report of the CCOP-PETRAD-INTSOK-BPMIGAS Seminar on Deepwater Development Technology, held in Surabaya, Indonesia on 5-7 November 2007. (Hard-copy & CD-Rom)

### **Report of the CCOP-PETRAD-PETRONAS-INTSOK Workshop on Deepwater Technology - Concept Selection and Long Tie-Backs**

A report of the CCOP-PETRAD-PETRONAS-INTSOK Workshop on Deepwater Technology - Concept Selection and Long Tie-Backs, held in Johor Bahru, Malaysia on 26-28 November 2007. (Hard-copy & CD-Rom)

## FELLOWSHIPS AND GRANTS

### 1) CCOP Texas A & M University Fellowship Programme

The CCOP/Texas A&M University (TAMU) Fellowship is a cooperative programme between CCOP and the Texas A&M University in USA. Under this programme TAMU had already provided graduate education fellowships to 2 outstanding government and industry personnel from the CCOP Member Countries.

The second recipient, Mr. Kelin Zhuang from China, has registered for the Spring Semester and has started his PhD in Coastal Geomorphology in January 2007 at Texas A&M University.

At the end of 2007, this fellowship programme has already ended.

### 2) East Asia Geoscience and Environmental Research (EAGER) Project

The EAGER Project is a trust fund set up in the Geological Society of America with personal contribution of Dr. Maurice "Ric" Terman, CCOP Honorary Advisor, to be used for funding research in geoscience in the region. Under the programme, a grant will be made available for researches in Geoscience and Environment in East and Southeast Asia to candidates from the Member Country hosting the CCOP Annual Session.

During 2003-2006, 4 researchers from CCOP Member Countries had been awarded this grant. In 2007, the recipient of the grant is Dr. Maybellyn A. Zepeda, Supervising Science Research Specialist, Mines and Geosciences Bureau, Department of Environment and Natural Resources (DENR), The Philippines. The title of the research is "Early Maastrichtian Short-Term Climate Events: Evidences Based on Foraminifera Response and Isotope Records."



*Dr. Maybellyn A. Zepeda, Mines and Geosciences Bureau, Department of Environment and Natural Resources (DENR), The Philippines, receiving the EAGER Award at the CCOP 44<sup>th</sup> Annual Session*

## MEETINGS AND MISSIONS

The Director, Sector Managers and Project Coordinators attended the following Conferences/Meetings/Events and made reports/presentations at some of them:

- ✦ Field Trip Study is a cooperation between Adam Mickiewicz University (Poland) and DMR (Thailand) "Field Work Studies of Geological and Environmental Impact of Tsunami", 2-6 February, Phuket, Phang Nga, Thailand.
- ✦ Workshop on "Geological and Environmental Impacts of Tsunami on Andaman Seacoast", 16 February, Bangkok, Thailand.
- ✦ Seminar on Strategy for Coastal Mitigation and Management National Plans, 21-22 February, Bangkok, Thailand.
- ✦ Knowledge & Innovation Bangkok International Conference 22, February, Bangkok, Thailand.
- ✦ Working Meeting with Petrovietnam and Vietsovetro, 3 March, Vung Tau, Vietnam.
- ✦ The High Level OneGeology Meeting, 12-16 March, Brighton, U.K.
- ✦ Joint Cambodia-Vietnam-DANIDA-CCOP Field Study and Workshop (ENRECA Project), 9-16 March, Cambodia.
- ✦ AIST/NECTEC GEOGRID Workshop, 20 March, Bangkok, Thailand.
- ✦ PRAGMA-12 (Pacific Rim Applications and Grid Middleware Assembly) Meeting, 21 March, Bangkok, Thailand.
- ✦ 22<sup>nd</sup> CCOP China National Coordinators Meeting, 28 March - 1 April, Guangzhou, China.
- ✦ Roxar Software Solutions "South East Asia User Conference 2007", 3-4 May, Bangkok, Thailand.
- ✦ ASCOPE E&P Meeting, 14th ASCOPE Joint Committees Meeting, 10-12 May, Singapore.
- ✦ Board Meeting of the Project on Coastal Mitigation and Protection Measure of Bang Khun Thiean Coast, 18 June 2007, Bangkok, Thailand.
- ✦ Asia Oceania Geoscience Assembly (AOGS) 2007, 30 July - 4 August, Bangkok, Thailand.
- ✦ USGS Training Course "Advanced Seismology and Tsunami Warnings", 20-24 August Bangkok, Thailand.
- ✦ Asian Energy Business Forum (AEBF), 22-24 August, Singapore.
- ✦ CASM SMAG Meeting, 5-7 September, Beijing, China.
- ✦ 7<sup>th</sup> Annual CASM Conference, 8-12 September Ulaanbaatar, Mongolia.
- ✦ ASCOPE E&P Meeting, ASCOPE CO2 Workshop, 15<sup>th</sup> ASCOPE Joint Committees Meeting, 6-8 September, Brunei.
- ✦ 1<sup>st</sup> GEO Donor Capacity Building Symposium, 9-13 September Seville, Spain.
- ✦ Asia-Pacific Regional Workshop on School Education and Disaster Risk Reduction, 8-10 October, Bangkok, Thailand.
- ✦ International Symposium on Circum-Pacific Petroleum and Alternative Energy Resources, 16-18 October, Beijing, China.
- ✦ The 3<sup>rd</sup> International Geohazards Workshop, 6-9 November, Frascati, Italy.
- ✦ Stakeholder Communication in Developing Adaptation Strategies to Natural Hazard and Climate Change Seminar, 13 November, Bangkok, Thailand.



- ✦ Mission trip to Japan, in-conjunction with International Symp on Quat. Environmental Changes and Humans in Asia and the Western Pacific, 19-24 November, Tsukuba, Japan.
- ✦ EASEO Meeting, 21 November, Bangkok, Thailand.
- ✦ International Conference (GEOTHA1 2007) on Geology of Thailand, 21–22 November, Bangkok, Thailand.
- ✦ Hanoi Geo-Engineering 2007 Symposium, 22-23 November, Hanoi, Vietnam.
- ✦ International Colloquium on the Water Issues in Siem Reap, 25-27 November, Siem Reap, Cambodia.
- ✦ UN Geographic Information Working Group (UNGIG) Eighth Plenary Meeting, 29-30 November, Bangkok, Thailand.
- ✦ Visit to Mineral Resources and Petroleum Authority, 3-7 December, Ulaanbaatar, Mongolia.



*H.E. Mr. Ya. Sodbaatar, Vice Minister of Industry and Trade of Mongolia receiving Dr. Hee-Young Chun, Director of CCOP Technical Secretariat.*



## Financial Highlights

From January 1 to December 31, 2007, Member Countries' total cash contributions amounted to **USD 271,912.72**, of which USD 15,002.93 for the arrears of 2005, USD 12,416.83 for the arrears of 2006 and USD 244,492.96 cash contributions for 2007. The expected cash contributions from the rest of the Member Countries are **USD 72,000.00** for 2004-2005, **USD 87,583.17** for 2006, **USD 90,507.04** for 2007 and USD 335,000.00 for 2008 (Table 3).

At the end of 31 December 2007, total income for the year 2007 was **USD 454,421.16**. In addition to Member Countries' contributions, amounting to **USD 271,912.72**, the Technical Secretariat also earned **USD 157,299.15** from the management of projects during this period. The amount of **USD 758.42** was received from sale of publications and USD 24,450.87 was received from other incomes which included interest earned and miscellaneous incomes. The expenditure of **USD 533,882.62** was incurred for operation and administrative support. As of December 31, 2007, the CCOP General Fund registered a cash balance of **USD 544,073.45** (Table 4.). Detail on CCOP Projects and CCOP Short-term Project financial Statement were also shown in Table 5 and 6.

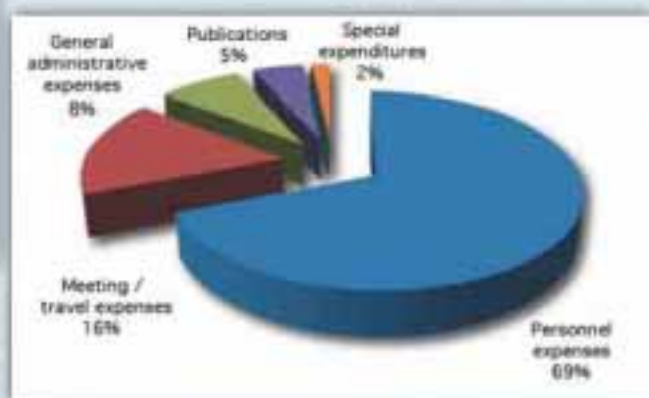
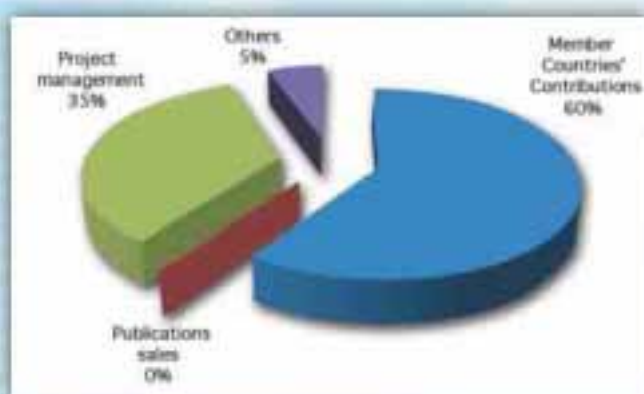
The Technical Secretariat office premise is continuously being provided by the Royal Thai Government, through the kind arrangement of the Department of Mineral Resources (DMR), Ministry of Environment and Natural Resources, at the Thai CC Tower, 24<sup>th</sup> Floor, 889 Sathorn Tai Road, Bangkok, Thailand. The Royal Thai Government through the DMR also accorded the privileges and the cooperation to enable the Technical Secretariat to operate efficiently and effectively.

**Table 3: MEMBER COUNTRIES' CASH CONTRIBUTIONS**  
For the year ended December 31, 2007  
(amount in US Dollars)

Member Country	Received in the year 2007			Expected to receive in the year 2008			
	2005 Contribution	2006 Contribution	2007 Contribution	Arrears of 2004-2005 Contribution	Arrears of 2006 Contribution	Arrears of 2007 Contribution	2008 Contribution
Cambodia			5,000.00				5,000.00
China				72,000.00	50,000.00	50,000.00	50,000.00
Indonesia			25,000.00				25,000.00
Japan			40,000.00				40,000.00
Korea			60,000.00				60,000.00
Malaysia			50,000.00				50,000.00
Papua New Guinea	4,416.47	10,000.00	9,492.96			507.04	10,000.00
Philippines	10,586.46	2,416.83			37,583.17	40,000.00	40,000.00
Singapore							
Thailand			40,000.00				40,000.00
Vietnam			15,000.00				15,000.00
<b>Total</b>	<b>15,002.93</b>	<b>12,416.83</b>	<b>244,492.96</b>	<b>72,000.00</b>	<b>87,583.17</b>	<b>90,507.04</b>	<b>335,000.00</b>

**Table 4: CCOP FINANCIAL STATEMENT**  
**For the year ended December 31, 2007**  
(amount in US Dollars)

	2006		2007	
	USD		USD	
<b>Fund Balance</b>	<b>397,826.54</b>		<b>618,968.16</b>	
<b>Income:</b>				
Member Countries' Contributions	419,096.07	63.28	271,912.72	59.84
Publications sales	1,077.95	0.16	758.42	0.16
Project management	212,103.92	32.03	157,299.15	34.62
Others	29,983.25	4.53	24,450.87	5.38
<b>Total Income</b>	<b>662,261.19</b>	<b>100.00</b>	<b>454,421.16</b>	<b>100.00</b>
<b>Expenditures :</b>				
Personnel expenses	294,536.69	67.53	368,008.05	68.93
Meeting / travel expenses	68,523.24	15.72	88,212.85	16.52
General administrative expenses	40,676.14	9.33	42,258.00	7.92
Publications	14,183.34	3.25	25,962.06	4.86
Technical activity support	10,003.43	2.29	-	-
Special expenditures	8,207.12	1.88	9,441.66	1.77
Others	-	-	-	-
<b>Total Expenditure</b>	<b>436,129.96</b>	<b>100.00</b>	<b>533,882.62</b>	<b>100.00</b>
<b>Income over/(under) expenses</b>	<b>226,131.23</b>		<b>(79,461.46)</b>	
<b>Total Fund Balance before adjustment.</b>	<b>623,957.77</b>		<b>539,506.70</b>	
<b>Adjusting entries</b>				
Unrealized gain/(loss) on exchange rate for Retained Earning	(4,989.61)		(3,244.47)	
Tax payable	-		-	
<b>Year-end Balance</b>	<b>618,968.16</b>		<b>536,262.23</b>	
<b>Adjustment to reflect actual cash inflow/(outflow) :</b>				
Received in Advance BGR Project	-		83,602.77	
Office equipment (net)	(11,929.35)		(13,202.78)	
Advance	(107,582.98)		(65,113.43)	
Tax deductible	1,532.36		2,524.66	
<b>Year-end Cash Balance</b>	<b>500,988.19</b>		<b>544,073.45</b>	



**Table 5: CCOP PROJECTS  
FINANCIAL STATEMENT**  
For the year ended December 31, 2007  
(amount in US Dollars)

	DANIDA Fund		PPM Fund		EPPM Bridging Fund	
	2006	2007	2006	2007	2006	2007
<b>Fund Balance</b>	45,841.40	209,895.48	613,789.81	157,865.53		-
<b>Income :</b>						
Received from Fund	649,045.80	366,609.16	-	117,269.20		361,866.64
Others	14,181.59	(1,666.28)	20,356.20	2,956.39		-
<b>Total Income</b>	663,227.39	364,942.88	20,356.20	120,225.59		361,866.64
<b>Expenditures :</b>						
Technical Activities Expenses	496,168.68	421,740.39	466,201.64	277,740.27		51,857.66
<b>Total Expenditure</b>	496,168.68	421,740.39	466,201.64	277,740.27		51,857.66
<b>Income over/(under) expenses</b>	167,058.71	(36,797.51)	(445,845.44)	(157,514.68)		310,008.98
<b>Adjusting entries :</b>						
Unrealized gain/(loss) on exchange rate for Retained Earning	(3,004.63)	(672.53)	(10,279.84)	(150.85)		-
<b>Year-end Balance</b>	209,895.48	172,425.44	157,865.53	-		310,008.98
<b>Adjustment to reflect actual cash inflow/(outflow):</b>						
Tax deductible	-	20.48	34.20	-		-
Advance	-	-	(39,871.75)	-		-
Remittance to CCOP General Fund	-	-	-	-		-
Office equipment (net)	-	-	-	-		-
<b>Year-end Cash Balance</b>	209,895.48	172,445.92	117,827.98	-		310,008.98

**Table 6: CCOP SHORT TERM PROJECTS  
FINANCIAL STATEMENT**  
For the year ended December 31, 2007  
(amount in US Dollars)

	MFA Norway Fund (Tsunami Phase I)		MFA Norway Fund (Tsunami Phase II)		CASM Asia Fund	
	2006	2007	2006	2007	2006	2007
<b>Fund Balance</b>	173,271.78	55,070.56		427,064.60	19,287.58	21,604.30
<b>Income :</b>						
Received from Fund	302,746.61	-		-	54,972.13	-
Others	5,330.51	23.80		-	2,316.39	-
<b>Total Income</b>	308,077.12	23.80		-	57,288.52	-
<b>Expenditures :</b>						
Technical Activities Expenses	423,525.44	50,513.33		-	54,286.09	7,030.55
<b>Total Expenditure</b>	423,525.44	50,513.33		-	54,286.09	7,030.55
<b>Income over/(under) expenses</b>	(115,448.32)	(50,489.53)		-	3,002.43	(7,030.55)
<b>Adjusting entries :</b>						
Unrealized gain/(loss) on exchange rate for Retained Earning	(2,752.90)	(18.40)		-	(685.71)	113.61
<b>Year-end Balance</b>	55,070.56	4,562.63		427,064.60	21,604.30	14,687.36
<b>Adjustment to reflect actual cash inflow/(outflow):</b>						
Tax deductible	-	-		-	-	-
Advance	-	-		-	-	-
Remittance to CCOP General Fund	-	-		-	-	-
Office equipment (net)	-	-		-	-	-
<b>Year-end Cash Balance</b>	55,070.56	4,562.63		427,064.60	21,604.30	14,687.36

## CCOP STEERING COMMITTEE/ MEMBER COUNTRIES PERMANENT REPRESENTATIVES (11)

*The Steering Committee is a policy making body of CCOP, which shall establish policies and principles for CCOP activities, approve work plan, budget, accounts for each year, new programme proposals, establish subsidiary bodies, appoint the Director, receive and consider the reports of Director on the functions delegated to him.*

### **CAMBODIA:**

**H.E. Mr. Sov Chivkun**

Permanent Representative of Cambodia to CCOP  
General Department of Mineral Resources  
(GDMR)  
Ministry of Industry, Mines and Energy (MIME)  
#45, Preah Norodom Blvd., Phnom Penh  
Cambodia

### **CHINA:**

**Prof. Dr. Zhang Hongtao**

Permanent Representative of China to CCOP  
Deputy Director-General  
China Geological Survey (CGS)  
Ministry of Land and Resources  
24 Guangsi Dajie, Xicheng District  
Beijing 100011  
People's Republic of China

### **INDONESIA:**

**Mr. Bambang Dwiyanto**

Permanent Representative of Indonesia to CCOP  
Head, Geological Agency  
Ministry of Energy and Mineral Resources (MEMR)  
Jl. Gatot Subroto Kav. 49, Jakarta 12950  
Indonesia

### **JAPAN:**

**Mr. Jun Niimi**

Permanent Representative of Japan to CCOP  
Minister  
Embassy of Japan  
1674, New Petchburi Road  
Bangkok 10320  
Thailand

### **KOREA:**

**Dr. Tai-Sup Lee**

Permanent Representative of Korea to CCOP  
President  
Korea Institute of Geoscience and Mineral  
Resources (KIGAM)  
30, Gajeong-dong, Yuseong-gu  
Daejeon 305-350  
Republic of Korea

### **MALAYSIA:**

**Mr. Yunus Abdul Razak**

Permanent Representative of Malaysia to CCOP  
Director-General  
Minerals and Geoscience Department  
20<sup>th</sup> Floor, Tabung Haji Building  
Jalan Tun Razak, 50658 Kuala Lumpur, Malaysia

### **PAPUA NEW GUINEA:**

**Ms. Nellie James**

Permanent Representative of Papua New Guinea  
to CCOP  
Acting Secretary, Department of Mining, Private  
Mail Bag, Port Moresby Post Office  
National Capital District  
Papua New Guinea

### **THE PHILIPPINES:**

**Mr. Horacio Ramos**

Permanent Representative of Philippines to CCOP  
Director, Mines and Geosciences Bureau (MGB)  
Department of Environment and Natural Resources  
North Avenue, Diliman, Quezon City  
Republic of The Philippines

### **SINGAPORE:**

**Mr. Chang Chin Nam**

Deputy Director, Logistics and Transport Cluster  
Economic Development Board (EDB)  
250, North Bridge Road  
#24-00 Raffles City Tower  
Republic of Singapore 179101

### **THAILAND:**

**Mr. Apichai Chvajareernpun**

Permanent Representative of Thailand to CCOP  
Director-General  
Department of Mineral Resources (DMR)  
Ministry of Natural Resources and Environment  
Rama VI Road, Ratchathewee  
Bangkok 10400  
Thailand

### **VIET NAM:**

**Dr. Tran Ngoc Canh**

Permanent Representative of Vietnam to CCOP  
President and CEO of PETROVIETNAM  
18, Lang Ha Street, Ba Dinh District, Hanoi  
Socialist Republic of Vietnam

## CCOP COOPERATING COUNTRIES AND REPRESENTATIVES (15)

### AUSTRALIA:

Prof. Clinton Bruce Foster  
Representative of Australia to CCOP  
Chief, Petroleum and Marine Division  
Geoscience Australia  
G.P.O. Box 378, Canberra, ACT 2601  
Australia

### BELGIUM:

Prof. Dr. Ir. Léon Dejonghe  
Representative of Belgium to CCOP  
Geologist Director, International Cooperation  
Geological Survey of Belgium  
Royal Belgian Institute of Natural Sciences  
13 Janine Street, B-1000 Brussels  
Belgium

### CANADA:

Mr. Ralph G. Currie  
Representative of Canada to CCOP  
Head, Natural Resources Canada  
Geological Survey of Canada (SSC)  
Pacific Geoscience Centre  
9860 West Saanich Road, P.O. Box 6000  
Sidney, B.C. V8L 4B2, Canada

### DENMARK:

Mr. Ioannis Abatzis  
Representative of Denmark to CCOP  
Senior Geophysical Adviser  
Geological Survey of Denmark and  
Greenland (GELIS)  
Øster Voldgade 10, DK-1350, Copenhagen K  
Denmark

### FRANCE:

Mr. Jean Claude Guillemeu  
Representative of France to CCOP  
Director, International Division  
Bureau de Recherche Géologiques et Minières  
(BRGM)  
3, Avenue C. Guillemin - S.P. 6009  
45060 Orléans Cedex 2, France

### GERMANY:

Prof. Dr. Hans-Joachim Kämpel  
Representative of Germany to CCOP  
President  
Bundesanstalt für Geowissenschaften und  
Rohstoffe  
(BGR)  
Federal Institute for Geosciences and Natural  
Resources  
Steilweg 2, Post Box 510153  
D-30555 Hannover, Germany

### JAPAN

(see Member Countries)

### THE NETHERLANDS:

Dr. Jos L.J. de Sonneville  
Representative of The Netherlands to CCOP  
Director, International Cooperation  
Netherlands Institute of Applied Geoscience  
TNO - National Geological Survey  
Prinscastruik 6, P.O. Box 80015  
3508TA Utrecht, The Netherlands

### NORWAY:

Mr. Per Blystad  
Representative of Norway to CCOP  
Senior Geologist  
Norwegian Petroleum Directorate (NPD)  
Prof. Olav Hanssenvei 10  
P.O. Box 600, N-4003 Stavanger  
Norway

### POLAND:

Dr. Witold Szczuciński  
Representative of Poland to CCOP  
Adjunct (Associate Professor)  
Institute of Geology  
Adam Mickiewicz University in Poznan  
Makow Polnych 16, 61-606 Poznan  
Poland

### RUSSIAN FEDERATION:

Dr. Elena A. Konstantinovskaja  
Representative of Russian Federation  
to CCOP  
Senior Researcher, Geological Institute  
Russian Academy of Sciences  
7, Pyzhevsky per., 119017 Moscow  
Russian Federation

### SWEDEN:

Dr. Lars Persson  
Representative of Sweden to CCOP  
Director  
Geological Survey of Sweden (SGU)  
P.O. Box 670, SE-75128  
Uppsala, Sweden

### SWITZERLAND:

-

### UNITED KINGDOM:

Mr. David C. Ovadie  
Representative of the United Kingdom to  
CCOP  
Head of International Division  
British Geological Survey (BGS)  
Keyworth, Nottingham NG12 5GG  
United Kingdom

### UNITED STATES OF AMERICA:

Dr. Jack H. Medlin  
Representative of United States to CCOP  
Chief, Asian and Pacific Programs  
Office of International Geology  
U.S. Geological Survey (USGS)  
MS-954 National Center  
12201 Sunrise Valley Drive  
Reston, Virginia 20192  
U.S.A.

## CCOP COOPERATING ORGANIZATIONS AND REPRESENTATIVES (13)

### ASCOPE:

Ms. Ungku Anon Ungku Tahir  
Secretary-in-Charge  
ASCOPE (ASEAN Council on Petroleum)  
Level 4B, Tower 1, Petronas Twin Towers  
Kuala Lumpur City Centre  
50088 Kuala Lumpur, Malaysia

### CIFEG:

Mr. François Pherd  
Deputy Director  
International Center for Training and  
Exchanges  
in the Geosciences (CIFEG)  
3, Avenue Claude Guillemin, B.P. 6517  
45065 Orléans Cedex 2, France

### CPC:

Dr. David G. Howell  
President, Circum Pacific Council  
U.S. Geological Survey, MS-875  
345 Middlefield Road, Menlo Park  
CA 94025, U.S.A.

### EURO-GEOSURVEYS:

Mr. Patrice Christmann  
Secretary General, EuroGeoSurveys  
The Association of Geological Surveys of  
the European Union  
Rue du Luxembourg 3, 1000 Brussels  
Belgium

### GETECH:

Dr. J. Derek Fairhead  
Managing Director  
Prof. of Applied Geophysics  
Geophysical Exploration Technology  
(GETECH)  
c/o School of Earth Sciences  
University of Leeds, Leeds LS2 9JT  
United Kingdom

### IOC:

Dr. Patrick A. Bernal  
Executive Secretary  
Intergovernmental Oceanographic Commis-  
sion (IOC)  
1 rue Miollis, Paris 75732  
France

### IOMAC:

Dr. Hiran W. Jayawardane  
Secretary-General  
Indian Ocean Marine Affairs Co-operation  
(IOMAC)  
Suite 4-212, Bandaranaike Memorial  
International Conference Hall (B.M.I.C.H.)  
Buddhaloka Mawatha, Colombo 7  
Sri Lanka

### IUGS:

Prof. Dr. Zhang Hongren  
President,  
IUGS Executive Committee  
c/o International Union of Geological Sciences  
(IUGS) No. 64, Fuxue Dajie, Beijing 100612  
People's Republic of China

### PETRAD:

Dr. Øystein Berg  
Managing Director  
International Programme for Petroleum  
Management and Administration (PETRAD)  
Prof. Olav Hanssenvei 10  
P.O. Box 600, N-4003, Stavanger  
Norway

### UN-ESCAP:

Dr. Noeleen Heyzer  
Executive Secretary  
UN-ESCAP, United Nations Building  
Rajdamneng Nok Avenue  
Bangkok 10200  
Thailand

### UNEP:

Mr. Surendra Shrestha  
Regional Director and Representative for  
Asia and the Pacific  
United Nations Environment Programme  
(UNEP)  
10<sup>th</sup> Fl., Block B, United Nations Building  
Rajdamneng Nok Avenue, Bangkok 10200  
Thailand

### UNESCO:

Dr. Giuseppe Arduino  
Programme Specialist in Hydrological/  
Geological Sciences  
UNESCO Jakarta Office, Jalan Galuh (II)  
No. 5, Kabayoran Baru, Jakarta Selatan  
12110  
P.O. Box 1273/JKT, Indonesia

### WORLD BANK:

Mr. Godthard Walser  
Senior Mining Specialist  
Industry and Mining Division  
Finance and Private Sector Development  
The World Bank Group  
1818 H. Street, N.W., Washington, DC 20433  
U.S.A.



## CCOP HONORARY ADVISERS (17)

### China:

Mr. Wang Daxiong  
Honorary Adviser to CCOP  
China Geological Survey (CGS)  
24, Guangsi Dajie, Xicheng District  
Beijing 100011  
People's Republic of China

Mr. Wang Xionglin  
Honorary Adviser to CCOP  
China Geological Survey (CGS)  
24, Guangsi Dajie, Xicheng District  
Beijing 100011  
People's Republic of China

Prof. He Qixiang  
Honorary Adviser to CCOP  
Director, Research Center for Coastal  
Geology  
China Geological Survey (CGS)  
No. 62, Fuzhou Road, Qingdao 266071  
People's Republic of China

### Indonesia:

Prof. Dr. John Katili  
Honorary Adviser to CCOP  
c/o Dr. Amanda Katili  
Bandung, Indonesia

Mr. Anai Johannas  
Honorary Adviser to CCOP  
Jl. Titiaran No. 1, Bandung 40133  
Indonesia

Prof. Dr. Adjat Sudradjat  
Honorary Adviser to CCOP  
c/o Geological Agency  
Ministry of Energy and Mineral Resources (MEMR)  
Jl. Gatot Subroto Kav. 49  
Jakarta 12950, Indonesia

### Japan:

Dr. Yoshitiko Shimazaki  
Honorary Adviser to CCOP  
Nikko Exploration and Development Co., Ltd.  
Toranomon New Fashion Bldg.  
7-10 Toranomon, 2-Chome Minato-ku  
Tokyo 105-0001, Japan

### Malaysia:

Mr. Fateh Chand  
Honorary Adviser to CCOP  
465 Jalan Desa Utama, Taman Desa  
58100 Kuala Lumpur  
Malaysia

Mr. Chen Shiock Pei  
Honorary Adviser to CCOP  
No. 1617, Jalan Urat Mata  
Lorong 3, 93350 Kuching  
Sarawak,  
Malaysia

### The Philippines:

Dr. Guillermo R. Balce  
Honorary Adviser to CCOP  
PNOC Energy Development Corporation  
Energy Center, Merrill Road  
Fort Bonifacio, Metro Manila 1634  
Republic of the Philippines

### The Netherlands:

Dr. E. Oele  
Honorary Adviser to CCOP  
Kagerdreef 188  
2172 HR Sassenheim  
The Netherlands

Dr. Henk J.W.G. Schalk  
Honorary Adviser to CCOP  
Starkenborglaan 10  
2341 BM Oegstgeest  
The Netherlands

### Thailand:

Mr. Semsakdi Kulvanich  
Honorary Adviser to CCOP  
Semsakdi K. Co., Ltd.  
76 Petkasem Road, Tambol Noppring  
Moo 4, Amphur Muang  
Phang-Nga 82000, Thailand

Dr. Charan Achalabhuti  
Honorary Adviser to CCOP  
708 Sriyan Soi 1  
Nakornchaisri Road  
Bangkok 10300

### United Kingdom:

Dr. Anthony Reedman  
Honorary Adviser to CCOP  
15 Malvern Road, Mapperley  
Nottingham NG3 5GZ  
United Kingdom

### U.S.A.:

Dr. Maurice J. Terman  
Honorary Adviser to CCOP  
Scientist Emeritus  
U.S. Geological Survey  
917 National Center, Reston  
VA 20192, U.S.A.

Dr. David B. Prior  
Chairman, CCOP Advisory Group  
Honorary Adviser to CCOP  
Executive Vice Chancellor for Academic  
Affairs  
The University of Texas System  
601 Colorado Street, Room 304  
Austin, Texas 78701, U.S.A.



## CCOP FAMILY



*Group picture of our extended CCOP family reunion at the 45<sup>th</sup> Annual Session in Cebu, the Philippines.*



*Celebrating Thai's New Year Festival by pouring water onto the hands of the respected ones who in turn say their blessings, hold at the 49<sup>th</sup> Steering Committee Meeting in Langkawi, Malaysia.*

*2007 Building Multi-Cultural Team of CCOP T/S.*



# CCOP



## CCOP

AND THE INTERNATIONAL YEAR OF  
PLANET EARTH 2007-2009

### Background

The United Nations General Assembly has approved 2008 as the UN International Year of Planet Earth (IYPE). In practice, programmes associated with IYPE are aimed at raising worldwide public and political awareness of the importance of geoscience to the global community, and will operate during the three years from 2007 to 2009. The joint initiators of the international year were IUGS and UNESCO and CCOP is an Associate Partner in this initiative. Some CCOP Member and Cooperating Countries have already established National Committees for IYPE.



Geoheritage site of the CCOP Member Countries to be published as a contribution to IYPE.

### Initiatives

- ★ The Annual Session of CCOP is a forum for information exchange regarding activities during the IYPE;
- ★ CCOP is a coordinating body to incorporate more countries, encourage cross-border cooperation and add a regional dimension to individual national projects;
- ★ CCOP to publish a book about the Geological Heritages of the CCOP region;
- ★ OneGeology-CCOP Project, a contribution to the international OneGeology initiative for the IYPE.



#### CONTACT: CCOP TECHNICAL SECRETARIAT

Thal CC Tower, 24<sup>th</sup> Floor, Suite 244-245  
889 Sathorn Tal Road, Sathorn, Bangkok 10120, THAILAND  
Tel: (66) 0 2672 3080 / Fax: (66) 0 2672 3082  
E-mail: [ccopts@ccop.or.th](mailto:ccopts@ccop.or.th) / Website: <http://www.ccop.or.th>