



# CCOP

COORDINATING COMMITTEE FOR GEOSCIENCE PROGRAMMES  
IN EAST AND SOUTHEAST ASIA

# 2004

## CCOP ANNUAL REPORT

CCOP TECHNICAL SECRETARIAT  
BANGKOK, THAILAND

# **C o n t e n t s**

■ <b>Message from the Chairman</b>	<b>...3</b>
■ <b>About CCOP</b>	<b>...4</b>
■ <b>Management and Organization</b>	<b>...5</b>
■ <b>CCOP Steering Committee Meetings and Annual Session</b>	<b>...7</b>
■ <b>Technical Cooperation and Activities</b>	<b>...8</b>
■ <b>Director's Missions</b>	<b>...17</b>
■ <b>Publications</b>	<b>...18</b>
■ <b>Finance</b>	<b>...20</b>
■ <b>List of CCOP Member Countries, Cooperating Countries/ Organizations, Honorary Advisers and Technical Adviser</b>	<b>...24</b>

## **CCOP TECHNICAL SECRETARIAT**

24<sup>th</sup> Floor, Suite 244-245, Thai CC Tower

889 Sathorn Tai Road, Sathorn, Bangkok 10120, THAILAND

Tel: (66) 0 2672 3080 / Fax: (66) 0 2672 3082

E-mail: ccopts@ccop.or.th / Website: <http://www.ccop.or.th>





## Message from the Chairman

First of all, I would like to thank the CCOP Member Countries, Cooperating Countries and Organizations for their active support, contributions and participation which have contributed to the successful implementation of our organization's activities through the year 2004. I am very pleased to note the high level of activities that was achieved. Twenty-nine seminars, technical meetings/ workshops and trainings were held and benefited 795 personnel from the Member Countries. On behalf of CCOP, I congratulate the Director of the CCOP Technical Secretariat and the Staff for attaining this high level of activities and successfully implementing them for the benefits of CCOP Member Countries.

Geoscience's contributions to the well being of society has been further proven and enhanced after the tragic December 26, 2004 Tsunami that struck the Indian Ocean, affecting the Asian region, among which are three of our CCOP Member Countries - Indonesia, Malaysia and Thailand. To all that have been affected by this shocking disastrous event, I convey my deepest condolences and sympathies.

CCOP, being a coordinating body for geoscience programmes in East and Southeast Asia, is playing an important role in the post tsunami action forward. Working closely with others, we can prevent or minimize the loss of lives and properties that can result in any natural disaster. CCOP in close discussion and consultation with other affected CCOP countries have identified several actions that geoscience can contribute to the post tsunami rehabilitation and reconstruction, in the longer term tsunami mitigation and early warning and creating public awareness. Immediately after the tsunami, CCOP was in discussion with the Department of Mineral Resources, Thailand and other affected countries on planning an international seminar with the objectives to discuss geoscience actions for post tsunami rehabilitation and reconstruction, tsunami mitigation and early warning system, creating public awareness of tsunami hazards and to discuss how the international communities can assist the affected countries to become ready for future tsunamis. We anticipate that there will be strong collaborated efforts in risk assessment, rehabilitation and mitigating future impacts of similar events with geoscience playing a significant role and giving important inputs.

For the year under review, the Petroleum Policy and Management (PPM) Project was in its second year of implementation with a record number of activities conducted including case study workshops, expert visits, and training. We express our deep appreciation to the Norwegian Agency for Development Cooperation (NORAD) for the support of this major energy project. The year also witnessed the continuation of activities for the projects on the Digital Compilation of Geoscientific Maps (DCGM) Phase IV supported by Japan; PETRAD Seminars supported by Ministry of Oil and Energy, Norway; Development of Techniques for Landslide Hazards Assessment supported by the Ministry of Science and Technology, Republic of Korea; the Global Mineral Resource Assessment supported by the United States Geological Survey; SANGIS Programme and the Asian Multilingual Thesaurus supported by CIFEG and UNESCO; and GRIDNET. Furthermore, five new projects supported by National Institute for Advanced Industrial Science and Technology/Geological Survey of Japan (AIST/GSJ) were initiated during the year, namely, (1) Project on Groundwater Assessment along Great River Basins in East and Southeast Asia, (2) Field Workshop for Volcanic Hazards Mitigation, (3) Project on Integrated Geological Assessment of Deltas in Southeast Asia (DelSEA Project), (4) Japan-Thailand Joint Seminar on Coastal Environment Management Strategy of the Asian Delta Region and (5) Project on Geoscience Asian Information Network (GAIN). We would like to thank AIST/GSJ for the strong support given to CCOP. Other activities such as seminars, workshops and meetings were also organized, supported by the CCOP Cooperating Countries and Organizations as well as the Member Countries.

I wish to give my sincerest thanks to the Member Countries, Cooperating Countries and Organizations, Honorary Advisors and friends for their contributions, assistance, guidance and continuous support. I am confident that the coming year will be very promising for CCOP with the high level of activities being maintained and the implementation of new projects planned for the benefits of its Member Countries.

**Somsak Potisat**  
Chairman  
CCOP Steering Committee



# About CCOP

**The Coordinating Committee for Geoscience Programmes in East and Southeast Asia (CCOP) is an intergovernmental organization with the purpose of carrying out joint applied geoscience programmes for sustainable development in East and Southeast Asia.**

The CCOP, "Coordinating Committee for Offshore Prospecting in Asia" was first established in 1966 by China, Japan, Republic of Korea and The Philippines under the auspices of ESCAP and the United Nations. CCOP became an independent intergovernmental organization in 1987 based on the common understanding of its Member Countries and the aspirations of the United Nations. The name was changed in 1994 to Coordinating Committee for Coastal and Offshore Geoscience Programmes in East and Southeast Asia. During this period, CCOP devoted itself to the coordination of, and cooperation in, scientific activities related to coastal and offshore areas with respect to geological/geophysical surveys, regional map compilations, database development, development of human resources and transfer of state of the art technology. In 2001, CCOP has reviewed and re-defined its programmes and activities accompanied by a name-change to Coordinating Committee for Geoscience Programmes in East and Southeast Asia. A new strategic plan was formulated with the focus on the following:

- \* 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.
- \* A 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.

With the new Strategic Plan, CCOP's technical activities were divided into three Sectors and seven Programmes that will allow the adoption of clear targets for the achievement of CCOP's strategic objectives. (Figure1).

- ◆ the geo-resources sector, consisting of the minerals programme, energy programme and groundwater programme
- ◆ the geo-environment sector, consisting of coastal zone programme, geohazards programme and environmental geology programme
- ◆ the geo-information sector with the geodata and geoscience information management programme

CCOP has 11 member countries; Cambodia, China, Indonesia, Japan, Malaysia, Papua New Guinea, The Philippines, Republic of Korea, Singapore, Thailand and Vietnam. CCOP is being supported by 14 cooperating countries and 13 international organizations.

The CCOP Technical Secretariat is responsible for the coordination of all activities carried out by CCOP. The Secretariat is headed by a Director, who reports to the CCOP Steering Committee consisting of one permanent representative from each Member Country. The Headquarters of the CCOP Technical Secretariat is located in Bangkok, Thailand.

CCOP's achievements have proven that it is a successful organization with following advantages in regional cooperation.

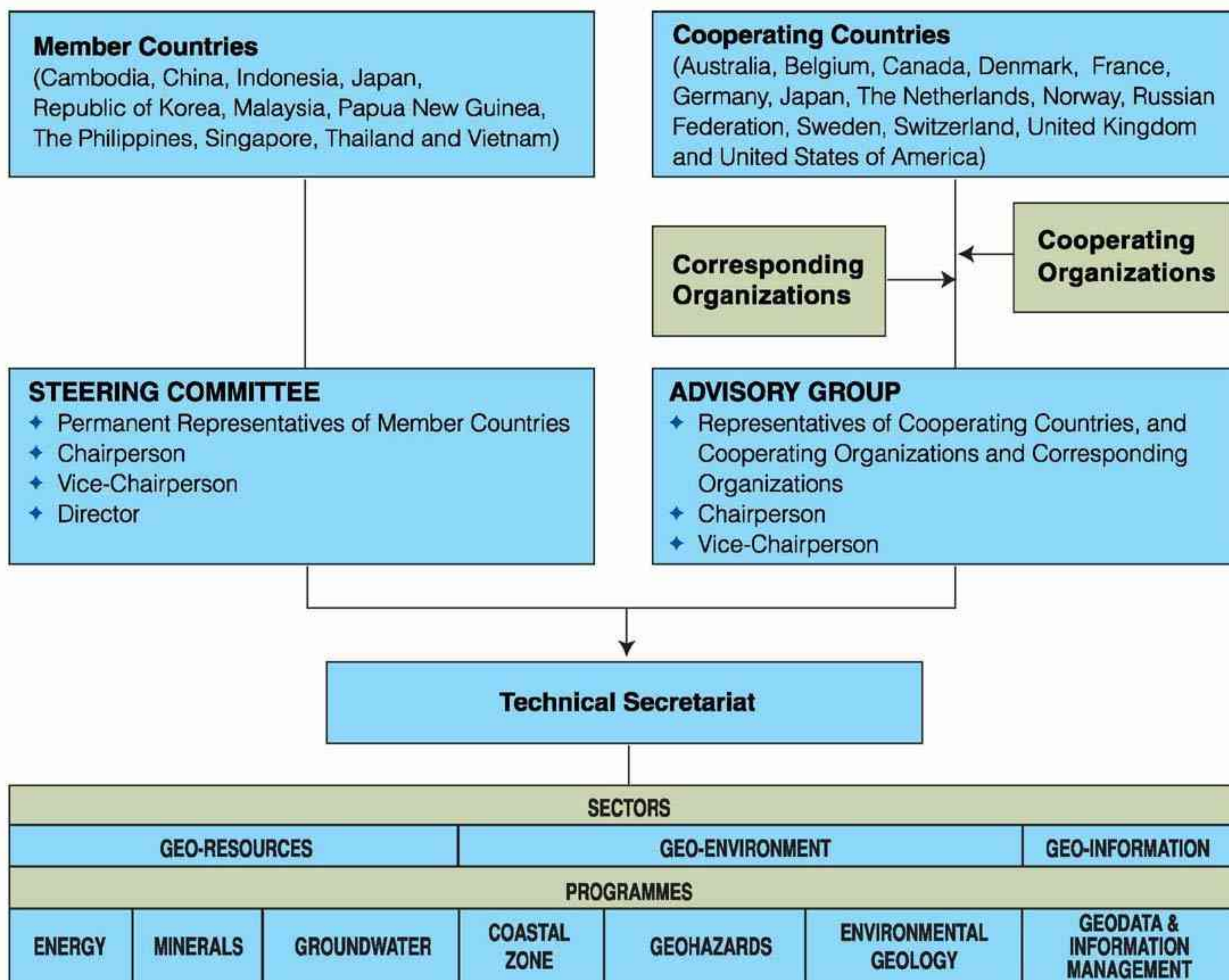
- ◆ Data exchange and sharing of institutional and administrative experiences
- ◆ Regional data compilation and regional resource mapping
- ◆ Training and human resource development
- ◆ Standardization of resource classification and nomenclature
- ◆ Harmonization of regulatory environment
- ◆ Joint investment promotion

CCOP's financial source includes the cash contributions made by the Member Countries, project management cost received from major projects and other incomes. Funds for most technical activities are provided under project support to activity by concerned cooperating countries, member countries and organizations.



# Management and Organization

**Figure 1. ORGANIZATION CHART OF CCOP**



**Professional Staff**

- Mr. Chen Shick Pei**  
Director
- Dr. Young-Soo Park**  
Regional Expert (from 1 April 2004)
- Mr. Simplicio Caluyong**  
PPM Project Coordinator (from 1 July 2004)
- Ms. Marivic Pulvera Uzarraga**  
Geodata and Information Management

**Staff who have completed their term during the reporting period**

- Dr. Seville D. David, Jr.**  
Regional Expert (until 31 March 2004)
- Mr. Gunnar Søliland**  
PPM Project Coordinator (until 30 June 2004)

**Support Staff**

- Mr. Anan Voratartrakul**  
Finance and Administration
- Ms. Petcharat Sarawisutra**  
Technical Programmes
- Ms. Sunit Prokati**  
Publication and Documentation
- Mr. Piyawatchara Pramalnrut**  
Assistant in IT
- Ms. Peerada Srisomboon**  
Assistant in Technical
- Ms. Sansanee Wudhivanich**  
Secretary
- Ms. Wanwisa Meengoen**  
Assistant in Finance
- Mr. Theerayan Thimasarn**  
Clerk/Driver
- Ms. Tawee Butrakaew**  
Office Helper



As of 31 December 2004, the CCOP Technical Secretariat (CCOP T/S) has thirteen personnel, comprising four professional and nine supporting staff. The organization chart of the CCOP T/S is shown in Figure 1.

Mr. Somsak Potisat, Permanent Representative of Thailand to CCOP, Director-General, Department of Mineral Resources has started his term on 1 January 2004 as Chairman of the CCOP Steering Committee for the period 2004-2005.

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.

During the reporting period, there have been several changes of personnel in the Technical Secretariat. Dr. Young-Soo Park took up his assignment as Regional Expert succeeding Dr. Sevillo David Jr. from 1 April 2004. Mr. Gunnar Søliland has completed his two-year term as the Petroleum Policy and Management (PPM) Project Coordinator on 30 June 2004. Mr. Simplicio Caluyong, Regional PPM Project Coordinator succeeds him as Project Coordinator from 1 July 2004. An assistant in Technical Programmes of the CCOP T/S, Ms. Peerada Srisomboon, was hired on January 2004.

Mr. Samai Chiemchindaratana, Deputy Director-General, Department of Mineral Resources (DMR), Thailand was appointed as the first Deputy Permanent Representative of Thailand to CCOP and Dr. Tawasaporn Nuchanong, Director, Geological Resource Conservation and Management Division, DMR, also as Deputy Permanent Representative.

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 24<sup>th</sup> floor of the Thai CC Tower, Sathorn Tai Road, Bangkok, Thailand. This provision amounts to USD 34,960 for the year 2004. The Royal Thai Government through the DMR also accorded the privileges and the cooperation to enable the CCOP T/S to operate efficiently and effectively.



# CCOP Steering Committee Meetings and Annual Session

The CCOP Steering Committee Meetings are held twice a year to review the programmes and activities of CCOP while the CCOP Annual Session 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 43<sup>rd</sup> CCOP Steering Committee Meeting** was held in the island resort of Phuket, Thailand from 17- 19 March 2004 and attended by 33 delegates from the Member Countries and the Technical Secretariat. The Meeting deliberated on the progress of CCOP activities for the calendar year 2003 as well as the progress on the implementation of activities for year 2004.



**The 41<sup>st</sup> CCOP Annual Session and 44<sup>th</sup> Steering Committee Meeting** were held at the EPOCHAL Tsukuba International Congress Center and the conference centre of the National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan on 15-18 and 14, 19-20 November 2004 respectively. The host facilities were provided by the Government of Japan through the Geological Survey of Japan (GSJ), the National Institute of Advanced Industrial Science and Technology (AIST). The Annual Session was attended by 133 delegates from Member Countries and Cooperating Countries and Organizations.

The main focus of the meetings was on progress report, financial matters, workplan and the status of current projects and new initiatives. The Steering Committee approved the proposed budget for 2005 and discussed the various issues on CCOP activities covering the three main sectors on Geo-resources, Geo-environment and Geo-information. A thematic session was held on 18 November 2004 with the theme "Geo-environment of delta and groundwater management in East and Southeast Asia".



# Technical Cooperation and Activities

## Technical Cooperation with Cooperating Countries and Organizations

Cooperating Countries and Organizations continued to provide technical support for activities contributing to sustainable geo-resources and environmentally sound development in the CCOP region as summarized in Table 1. The Member Countries also provide in-kind support to CCOP work programmes, to optimize the benefits of the support provided by the Cooperating Countries and Organizations.

Other cooperating countries generally continued their technical support to a number of CCOP programmes through implementation of bilateral activities with CCOP Member Countries and by providing valuable advice and guidance. Thanks are due to the cooperating countries for their provision of representatives to CCOP who have contributed in large measure to the CCOP work programmes. During the Director's missions to some member countries, the Permanent Representatives and their staff have made excellent arrangement and prepared purposeful programme for his visit. They have also accorded the warmest hospitality, cooperation and assistance that have facilitated the successful completion of the missions.

**Table 1. Summary of CCOP Technical Cooperation with Cooperating Countries and Organizations**

Cooperating Country/Organization	Activities
<b>Canada</b>	Cooperation and support for an Ocean and Coastal Mapping Workshop to Member Countries. Workshop for the Philippines conducted in 4 <sup>th</sup> Q, 2004
<b>Denmark</b>	Developing a new project on Capacity Building in the Petroleum Sector
<b>France</b>	Support to the SANGIS Training-Bibliographic Phase and Asian Multilingual Thesaurus Programme through CIFEG. A new project on European-Asian thesaurus is also being proposed Support to technical visits of CIFEG experts to Member Countries
<b>Japan</b>	Five projects are being supported for 2004-2005
<b>Germany</b>	Supported the organization of a training course on Goal Oriented Project Planning (GOPP) through BGR
<b>The Netherlands</b>	Communicating with TNO-NITG on CCOP-Netherlands cooperation for new activities. A new initiative on groundwater management is being discussed
<b>Norway</b>	Support for the Petroleum Policy and Management (PPM) Project Through PETRAD, CCOP organized tailor-made bilateral seminars/workshops for the CCOP Member Countries Support for training on delineation of outer limits of the continental shelf and Petrad series of seminars is under discussion
<b>United Kingdom</b>	Cooperation with GETECH in the production of aeromagnetic and gravity maps
<b>United States of America</b>	Through U.S. Geological Survey, cooperation on the implementation of the Global Mineral Resource Assessment Project (GMRAP) Offered seminars on gas-hydrates and coal bed methane workshops for MC Initiative on Sea Grant model programme for the region with NOAA Texas A & M University made available Fellowships for the Member Countries Support for Integrated Ocean Drilling Programme for global climate change study and involvement of CCOP in the programme is under discussion
<b>Asean Council on Petroleum (ASCOPE)</b>	Close cooperation is maintained 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
<b>Circum Pacific Council</b>	Cooperation on the WGGC Project New initiative on Powering the Rim, and discussion on a project to develop new modules of RIMSIM game for different scenarios
<b>Economic and Social Commission for Asia and the Pacific (ESCAP)</b>	Information exchange and discussion, cooperation on technical activities as well as organizing workshops and conferences were continued. CCOP report for the UN-ESCAP Commission Session
<b>International Union of Geological Sciences (IUGS)</b>	On-going discussion of cooperation on International Year of Planet Earth and support to CCOP activities. Application for Associate Membership in IUGS. Cooperation in various IUGS/IGCP projects and IUGS Commission activities
<b>United Nations Educational, Scientific &amp; Cultural Organization (UNESCO)</b>	Support to the organization of the SANGIS Training Programme- Bibliographic Phase and SANGIS Asian Multilingual Thesaurus Support for technical visits of CIFEG experts to Member Countries Information exchange, discussion and cooperation on CCOP technical activities were continued and new initiatives on groundwater discussed

## Technical Programmes and Activities

The Technical Secretariat has met most of its planned targets under the following three sectors. A record number of 29 seminars, technical meetings/workshops and trainings were held and attended by 795 participants from the CCOP Member Countries (Table 2). Aiming at technology transfer, these activities were highly appreciated by the participants. Visits to Member Countries were made by CCOP experts to provide advisory services.

Table 2. Summary of CCOP Member Countries' participation in technical activities.

Sector	No. of activities	No. of participants
Geo-resources	23 (*7)	704 (*318)
Geo-environment	2	40
Geo-information	4	51
<b>TOTAL</b>	<b>29</b>	<b>795</b>

\*CCOP-PETRAD Seminars

## GEO-RESOURCES SECTOR

All of us depend, to varying extents, on the earth's supply of natural resources to support, maintain and improve our lives. Many of these resources, vital to our national life-support systems, are geology dependent. Properly executed geoscientific programmes of research and development are essential for their discovery and responsible usage. Under this sector, CCOP aims 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.

### GEO-RESOURCES SECTOR: ENERGY PROGRAMME

The production of the so-called fossil fuels - oil, natural gas and coal or lignite - is a very significant revenue earner in a number of the CCOP member states and the region as a whole is both an important producer and consumer of such products. CCOP programmes in the energy sector has been sustained as a systematic regional endeavor of resource assessment and evaluation which is fundamental to sustainable development of the hydrocarbon resources in the region.

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

The 4-year Norwegian government-supported PPM Project started on July 2002. Among the highlights of the activities of the project for the reporting period are the holding of workshops for the case study countries, expert visits, planning/coordination meetings, and the annual seminar. Mr. Gunnar Søliland had successfully completed his two-year term as Project Coordinator on 30 June 2004 and Mr. Simplicio Caluyong took over as Project Coordinator starting from 1 July 2004. The PPM Project is in full implementation and during the period, the following activities were carried out:

##### Workshops

- ◆ The second workshop of the Sulu Sea Region case study conducted in Manila City on 22-27 January 2004 was attended by 36 participants.
- ◆ The second workshop of the Kutei Basin case study conducted in Bandung on 8-13 March 2004 was attended by 37 participants.
- ◆ The third workshop of the Khmer Basin case study was held from 29 March to 3 April 2004 in the Angkor Hotel, Seam Reap and attended by 29 participants.
- ◆ The second workshop of the Western Depression of the Sichuan Basin case study, attended by 25 participants was held on 22-27 May 2004 in Xin Liang Hotel, Chengdu, Sichuan Province.
- ◆ The third workshop of the Sulu Sea Region case study conducted in Baguio City on 25-30 August 2004 was attended by 39 participants.
- ◆ The fourth workshop of the Khmer Basin case study was held from 1 to 5 December 2004 in the Phnom Penh Hotel, and attended by 34 participants.





### *Training Courses/Expert Visits*

- ❖ Training on petroleum resource assessment using the GeoX software for Cambodia and PNG technical staff, and GeoCAD and rat digitizer usage for Cambodia technical staff on 28-30 January 2004 by the DOE technical staff at the Oil and Gas Division office, DOE, Manila, Philippines.



- ❖ Mr. Cyrus Esphahanian, an American petroleum engineer visited SINOPEC in Chengdu on 15-19 March 2004 and conducted lecture and field discussions with Chinese experts on fractured tight sand reservoirs development and production.
- ❖ Mr. Ben Law, an American expert in basin-centered gas and coal bed methane systems visited SINOPEC in Chengdu on 19-23 April 2004 and had field discussions on the geological features of the Sichuan basin. He also conducted lecture on the "basin-centered gas system" for SINOPEC staff.
- ❖ Mr. Gener P. Revilla, a senior geoscientist from the Philippines DOE together with Mr. Simplicio P. Caluyong conducted a follow-up training for the CNPA staff on the usage of GeoX software and GeoCAD mapping software for resource assessment at the CNPA office in Phnom Penh on 21-23 July 2004.
- ❖ Ms. Supaporn Pisutha-Arnond, a senior geologist from PTTEP, Thailand visited the Philippine DOE on 14-15 September 2004 to conduct a course on the Application of Organic Geochemistry to Source Rock Appraisal and Hydrocarbon Characteristics.
- ❖ Dr. Alfred Kjemperud of the Bridge Group AS (Norway) conducted a special course for the CNPA staff in Phnom Penh on 29-30 December 2004 on petroleum resource assessment and economy, primarily to prepare the CNPA staff for the fourth workshop of the Khmer Basin case study.
- ❖ Dr. Alfred Kjemperud, immediately after the PPM workshop in Cambodia, visited LEMIGAS, Indonesia on 6-9 December to conduct a course for the Indonesia PPM team on GeoX tools and economic modeling of fields and prospects. In addition to the Indonesian participants, three participants from the other case study countries (China, Cambodia and the Philippines) also attended the course.

## Seminar

The 3<sup>rd</sup> PPM Project Seminar was held on 20-23 September 2004, in Chiang Mai, Thailand. The seminar was attended by 29 participants and covered presentations from the case study participating countries on the project's impact and benefits, and some recommendations to improve the project implementation. The country presentation also included a special topic on marginal fields. In addition, Norway's experience on marginal fields was presented by an expert from the Norwegian Petroleum Directorate.



## Planning Meetings

The PPM Project Coordinator and the Regional Project Coordinator also attended several planning meetings including the National Project Coordination Committee (NPCC) meetings in the case study countries.

## CCOP-NPD-NORAD Annual Review Meeting

The CCOP-NPD and CCOP-NORAD PPM Annual Meetings for 2004 were held in Stavanger (22 April) and Oslo (23 April), Norway respectively. The meeting with NPD focused on the institution support provided by NPD to the project. Other opportunities for cooperation were also discussed. The progress of the Project was reviewed at the meeting with NORAD. The Project's budget and workplan for 2004 were presented and approved by NORAD at the meeting.

## PPM Mid-Term Review

The PPM Mid-term Review was successfully conducted in July with the review team comprising of Mr. Ole F. Ekern of Econ Analysis AS, Norway and Mr. Leong Khee Meng of the Universiti Teknologi PETRONAS, Malaysia. The final report of the review was submitted to CCOP Technical Secretariat on December 2004. The review is in accordance with the CCOP-NORAD Agreement on the PPM Project.

Details of the project can be accessed at the project's homepage at <http://www.ccop.or.th/projects/PPM.html>.

## 2) CCOP/PETRAD Programmes

With the technical and financial support of Norway, CCOP/ PETRAD cooperation to undertake activities at the request of CCOP Member Countries remained active and successful. Continued efforts are being exerted and PETRAD had been particularly resourceful in soliciting support for the seminars requested by the Member Countries. The CCOP T/S and PETRAD has been compiling a list of topics provided by the Member Countries, which will serve as the basis to request for funding support from the Government of Norway.

**During the reporting period, seven seminars were held with 318 participants.**

- ❖ 12-15 January 2004, Seminar on Reservoir Management and Technology, Kunming, China with 53 participants.
- ❖ 16-17 February 2004, Seminar on Gas Infrastructure Governance Process in Doson, Vietnam with 26 participants.
- ❖ 8-12 March 2004, Seminar on Operations and Maintenance in Tianjin, China with 91 participants.
- ❖ 26-29 July 2004, Seminar on HSE Management in Tianjin, China with 62 participants.
- ❖ 9-13 August 2004, Seminar on Petroleum Geochemical Exploration in Anhui, China with 23 participants.
- ❖ 23 November 2004, Top Management Seminar on Enterprise Risk Management in Bangkok, Thailand, with 26 participants.
- ❖ 23-24 November 2004, Seminar on Enterprise Risk Management in Bangkok, Thailand, with 37 participants.



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

The CCOP-USGS Global Mineral Resource Assessment Project (GMRAP) is part of the 5-year initiative to assess the identified and undiscovered non-fuel mineral resource of the world. A series of workshops and seminars are planned for the CCOP Member Countries between 2003 and 2007. For the reporting period the following activities were undertaken:

- ❖ 2<sup>nd</sup> Workshop on "Quantitative Mineral Resource Assessment of Southeast Asia: Porphyry and Sediment-hosted Cu deposits" 17-20 February 2004, Bangkok, Thailand attended by 16 participants from Cambodia, China, Indonesia, Japan, Malaysia, Philippines, Thailand and Vietnam with the USGS experts and staff of CCOP T/S. Permissive tracts were drawn for porphyry Cu and sediment-hosted Cu deposits and initial attempts to assess the resource were made during the workshop.
- ❖ Dissemination of the report of the 2<sup>nd</sup> Workshop for the CCOP-USGS Mineral Assessment of Copper Deposits in CD-ROM to all the National Coordinators incorporating the proceedings and the results of the Workshop.



Preparations for the 3<sup>rd</sup> Workshop to be held in February 2005 in Kunming, China are underway. Descriptive models for the assessment of other commodities, potash, PGE's, nickel laterite, and Sn-W deposits are being assembled. Permissive tracts for copper are being re-examined by the National Coordinators to finalize their data and concepts for the assessment process.

## 2) Project on Digital Compilation of Geoscientific Maps (DCGM) Phase IV

The DCGM Phase IV Project is being supported by the Japanese Government through the Japan-ESCAP Cooperation Fund and the Geological Survey of Japan/National Institute of Advanced Industrial Science and Technology (GSJ/AIST). Project Coordination of DCGM-IV is now by Dr. Yasukuni Okubo at GSJ/AIST in Japan and the CCOP T/S. The groundwater database compilation is being developed and is planned to have a link to each of the Member Country's database upon the confirmation of the Member Countries. The web-based groundwater database is now available on-line, with protected password and uploading of data is underway (<http://www.groundwater.jp/ccop/index.html>). The geothermal database includes an inventory of geothermal resources available in CCOP Member Countries and will be drawn in geologic maps compiled in earlier phases of the project using GIS.

The 6<sup>th</sup> and final Workshop of DCGM-IV Project: Geothermal and Groundwater Database was held in Geological Survey of Japan/AIST, Tsukuba, Japan on 23-27 February 2004. The Workshop was attended by 35 participants from the CCOP Member Countries. The prototype of the Asian Geothermal Database was presented. The borehole database compiled by NEDO, Japan comprising temperature, location and depth of boreholes data was used in the development of Asian Geothermal Database. Prototype of Japan database compiled on ArcView GIS and ArcReader format was also demonstrated. The discussion also focused on the format of the database. Participants from Member Countries also made presentations on their current status of geothermal database. The format for the final products of the project was presented by Dr. Y. Okubo. For the groundwater database, the participants discussed the final products of the project. In addition to the web-based groundwater database, a CD-Rom for the project will be produced. The workshop participants also deliberated in great depth on activities that should be included in the next groundwater project proposal supported by GSJ/AIST, Japan.



CCOP, under the DCGM-IV Project supported by the Japanese Government through the JECF fund, has provided computers and GIS software to the Member Countries, upon the requests of the DCGM-IV National Compilers in the course of implementing the Project. These computer hardware and software shall also be used in implementing future CCOP-Japan and other CCOP Projects.

Final publication of the products of DCGM-IV Project is being prepared.

## GEO-RESOURCES SECTOR: GROUNDWATER PROGRAMME

### 1) CCOP-AIST/GSJ Project on Groundwater Assessment along Great River Basins in East and Southeast Asia

The CCOP-AIST/GSJ Project on Groundwater Assessment along Great River Basins in East and Southeast Asia is a 3-year activity which commenced in April 2004 with the support of the Geological Survey of Japan/AIST. This Project aims to make a volumetric evaluation of groundwater resources by a water balance simulation, and to make a groundwater assessment plan along the great river basin in each country and/or area according to the field situation. It is also the objective of this project to extend the database of the CCOP DCGM Phase IV Project by making a qualitative groundwater assessment.



### 1) Development of Techniques on Landslide Hazards Assessment Project

With the support of the Government of Korea through the Ministry of Science and Technology (MOST), CCOP and KIGAM initiated a 3-year project in 2002 entitled "Development of techniques on landslide hazards assessment". The project aims to develop the techniques for the assessment of landslide hazards in the CCOP Member Countries with respect to application study of geographic information system (GIS) and remote sensing.

During the period, the 2<sup>nd</sup> Workshop on development of techniques on landslide hazards assessment using GIS and remote sensing was organized by CCOP and KIGAM on 20-23 April 2004 in Daejeon, Republic of Korea with 11 participants. Landslide hazards analysis, mapping and verification have already been done for Penang, Malaysia and Pechaboon, Thailand using landslide-occurrence factors by both the probability-frequency ratio and logistic regression model methods. Using the probability-frequency ratio method only, analysis has also been done for Lai Chau area of Vietnam.

The Project Coordinator, Dr. Saro Lee of KIGAM, made expert visits to some CCOP Member Countries to conduct training on landslide hazards analysis using GIS according to their requirements. The third phase of the project, 1 August 2004 - 31 July 2005 has been shortened to 1 August 2004 - 30 April 2005 due to financial measures taking place at MOST, Korea. Therefore, the planned 3<sup>rd</sup> Workshop of the Project has been cancelled. However, expert visits to the Member Countries in this phase continued.

### 2) Field Workshop for Volcanic Hazards Mitigation

The CCOP-AIST/GSJ Project on Field Workshop for Volcanic Hazards Mitigation is a 4-year project which commenced in April 2004 with the support of the Geological Survey of Japan/AIST. This Project aims to conduct a comparative study of the volcanic hazards faced by CCOP Member Countries, the predictive methods for future eruption in middle term based on the eruptive history, hazards mapping from a volcanic eruption case study and scenario analysis on the eruptive sequence (activity duration, the climax of activity, eruption rate, eruption sites, and eruption style). This could be achieved by conducting case studies field visits, workshops and research. Special field excursions and training will be arranged for young volcanologists from the concerned Member Countries. Scientific papers from the study will be published.

The Project was initiated with the first field workshop for Volcanic Hazard Mitigation held in Japan on 7-14 December 2004 in cooperation with AIST/GSJ. A total of 29 participants: 2 from Indonesia, 1 from Papua New Guinea, 1 from Philippines and 25 from Japan were in attendance. The purpose of the field workshop is to exchange information on volcanic activities in each country.

### 1) CCOP-AIST/GSJ Project on Integrated Geological Assessment of Deltas in Southeast Asia (DeISEA Project)

The CCOP-AIST/GSJ Project on Integrated Geological Assessment of Deltas in Southeast Asia (DeISEA Project) is a 4-year project which commenced in April 2004 with the support of the Geological Survey of Japan/AIST. The purpose of the project is to conduct cooperative geoscientific study/research of the major deltaic areas of East and Southeast Asia by Member Countries of CCOP as a part of the IGCP 475 "DeltaMAP" project, and to promote the sharing and dissemination of the study/research results in annual meetings of IGCP 475, the proceedings of which will be published in an international journal. The IGCP 475 Annual Meetings are hosted by the participating countries in the region and the next meeting in 9-16 January 2005 is planned to be held in Ho Chi Minh City, Vietnam.

CCOP will be holding a separate meeting of CCOP Member Countries' participants with the Project's resource persons and experts during the IGCP 473 DeltaMap Scientific Meeting to discuss the strategies and the programme for the implementation of the DeISEA project. Training courses are also planned under this project.

## **1) Research on the Coastal Environment Management Strategy of the Asian Delta Region (Phase I)**

The CCOP-AIST/GSJ Research Project on Coastal Environment Management Strategy of the Asian Delta Region (Phase I) is a 3-year project which was started in April 2004, and is being supported by the Geological Survey of Japan/AIST in close cooperation with Tokyo University. This project aims to describe quantitatively the problems on seashore erosion and eco-system loss and to make the proper management strategy of coastal environment.

# **GEO-INFORMATION SECTOR**

## **1) SANGIS Programme**

### *CCOP-CIFEG-ESCAP-UNESCO SANGIS Training: Bibliographic Phase*

During the 1<sup>st</sup> Quarter of 2004, a CIFEG expert made technical visits to CCOP Member Countries - Cambodia and Thailand and the implementation and use of the SANGIS Application was discussed.

On 26-30 April 2004, SANGIS Bibliographic Training was conducted by a CIFEG expert in Thailand at the Training Room of the Mineral Resources Information Center of the Department of Mineral Resources (DMR), Thailand. A total of five participated in the training; three from DMR and two from CCOP T/S.

### *CCOP-CIFEG-UNESCO Asian Multilingual Thesaurus for Geoscience (AMTG)*

The Asian Multilingual Thesaurus is a tool for information retrieval across language barriers. This facilitates multilingual research and information exchange. CCOP Member Countries participating in this initiative include Cambodia, China, Indonesia, Japan, Korea, Malaysia, Thailand and Vietnam. Lao PDR was also invited to participate. The Thesaurus shall be integrated in the SANGIS Bibliographic Database, enabling each country to work on its own language. A separate electronic thesaurus is also another product under this phase.

The SANGIS 2<sup>nd</sup> Meeting on Asian Multilingual Thesaurus for Geoscience (AMTG) was held on 8-9 December 2004 in Bangkok, Thailand, to present the beta version of the electronic AMTG. A total of 15 participants were in attendance.

At the meeting, the participants also presented their methodologies in doing the translation of the keywords to their national language. It was decided in the meeting that the final publication of the AMTG in CD-ROM will be in March 2005, then a printed AMTG will follow.

## **2) BGR-DMR-CCOP Goal-Oriented Project Planning (GOPP) Training Course**

Goal-Oriented Project Planning (GOPP) is an innovative tool for project management in which interactive workshops involving all stakeholders in a project together with an external moderator are held at different points in the project lifecycle. Many major international development agencies require a project to be planned by using this or other similar methods. Knowledge of these methods enables project planning documents to be prepared in accordance with the requirements of funding agencies.

### *CCOP-BGR-DMR Training Course on Goal Oriented Project Planning (GOPP) 31 May - 4 June 2004, Bangkok, Thailand*

The Training Course on Goal Oriented Project Planning (GOPP) was held in Bangkok, Thailand from 31 May to 4 June 2004. This training course was supported by the German Government through Bundesanstalt für Geowissenschaften und Rohstoffe (BGR). There were 30 participants from CCOP Member Countries and CCOP T/S Staff.

The training programme was targeted at senior level officials who are holding responsible project planning and implementation positions. Through this training, the participants have acquired the appropriate skills and knowledge in the various areas of the project planning for their organization or government. The trainee is also expected to be able to share the skills that he/she has acquired to other personnel in their organization to establish a team that will be involved in future project planning activities.

The training course included lectures on the GOPP method and applying the method and the planning steps in a case study. Mr. Sombat Jengsubant, a regional GOPP expert was the training course facilitator.



### 3) GRIDNET Programme

The GRIDNET Programme (Geoscience Report and Information Dissemination Network) programme aims to ensure that information, reports and other products from Cooperating Country and Organisation's bilateral and other aid-funded research projects relevant to the CCOP region are made available to organizations in CCOP Member Countries. The titles available in GRIDNET can be seen in the CCOP Homepage.

### 4) CCOP-AIST/GSJ Project on Geoscience Asian Information Network (GAIN)

The CCOP-AIST/GSJ Project on Geoscience Asian Information Network (GAIN) is a 3-year project which was started in April 2004, and is being supported by the Geological Survey of Japan/AIST. This project aims to establish a clearinghouse of geoscience information of East and Southeast Asia where customers worldwide can get the necessary information on the availability of geoscientific information particularly of CCOP Member Countries. Data and information will reside in the respective Member Countries. This will also make use of what has been accomplished in the CCOP Metadata Project, as a starting point to further contribute to the promotion, dissemination and use of geoscientific information.

Two staff from the CCOP T/S were trained on the use of the clearinghouse software in Japan in November 2004. During the training, the CCOP Clearinghouse has been set up for the web. It can now be accessed temporarily at this link: <http://www.aist.go.jp/RIODB/GeoMetaData/ASIA/> until it is moved to the CCOP T/S server.

## 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 the USA. Under this programme TAMU will provide graduate education fellowships to outstanding government and industry personnel from the CCOP Member Countries. In addition to the educational aspects, the project hopes to develop joint research projects between TAMU faculty and scientists and agencies in the CCOP Member Countries.

The first recipient of the award is Ms. Corazon Sta. Ana from the Department of Energy of the Philippines. She has registered for the fall semester and has started her Master of Science Degree in Petroleum Geology in August 2004 at Texas A&M University.

### 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.

For 2004, the recipient of the award was Ms. Zhen Li, a PhD student at Nagoya University, Japan for her research work entitled "High Resolution Climate Change and the Human Impacts on the Song Hong Delta Areas, Vietnam during the Holocene". Dr. Ric Terman awarded the grant to Ms. Li during the CCOP 41<sup>st</sup> Annual Session held in Tsukuba, Japan on November 2004.



# Mission to Member Countries, Cooperating Countries and Organizations

The Director made a mission to China and Japan upon the invitation of colleagues of these two countries, and attended the Circum Pacific Council Meeting.

In conjunction with the mission to China, 27-29 July 2004, the Director also attended the opening ceremony and the morning session of the CCOP-PETRAD-CNOOC-MLR seminar on Health, Safety and Environment held in Tanggu, Tianjin. He held discussions with Prof. Dr. Zhang Hongtao, Permanent Representative of China to CCOP, Deputy Director-General of China Geological Survey on cooperation in the ongoing and future CCOP activities. He was also invited to view some of the possible venues for 2005 Annual Session which China is offering to host.

In the visit to the Geological Survey of Japan/AIST, it coincided with the eve of change over to the new organization structure on 2 August 2004 under the Geological Survey of Japan (GSJ). The Director met with Dr. Eikichi Tsukuda, Director General of GSJ and other Directors and Deputy Directors of the Institutes and researchers responsible for the GSJ-CCOP cooperation. Details regarding the implementation of 5 GSJ/AIST supported CCOP activities for the year 2004-2005 and the preparations for the 41<sup>st</sup> Annual Session, Exhibition, Poster Session and the 44<sup>th</sup> Steering Committee Meetings were discussed.

The Director also attended the Circum Pacific Council for Energy and Mineral Resources (CPC) Meeting held in Honolulu from 26 to 28 April 2004. Some members of the CCOP Advisory Group were also present, Dr. David Prior, Chairman of the CCOP Advisory Group, Honorary Advisors Dr. Yoshihiko Shimazaki, Dr. Takemi Ishihara and Dr. Maurice Terman.

In the course of the meeting, a signing ceremony for MoU on CCOP-CPC-ADPC cooperation was held with Dr. Nahum Schneidermann, CPC Chairman. This cooperation focuses on the development of a mutually beneficial partnership aimed at working together to strengthen regional cooperation and disaster management capabilities. A discussion on the EAGER award for researchers of Japan, host of 2004 Annual Session was held with Dr. Takemi Ishihara, Dr. Yoshihiko Shimazaki and Dr. Maurice Terman.

The Director, on behalf of CCOP, would like to thank the Permanent Representatives of the Member Countries, and Representatives of Cooperating Countries and Organizations and their staff for the excellent arrangement and the fine programme made for the visits. They have accorded the warmest of hospitality, close cooperation and assistance that had facilitated greatly the successful completion of the mission. The missions to Japan and CPC were kindly supported by GSJ/AIST and CPC respectively. Their generosity and assistance to CCOP is deeply appreciated.



# PUBLICATIONS

A total of fifteen publications including newsletters, proceedings and reports were produced in 2004. The Proceedings of the workshops and seminars of the Petroleum Policy and Management Project are published in the PPM Website.

## General Publication

### *CCOP Newsletter Vol. 28 No. 3&4 (July-December 2003)*

The Newsletter presents highlights of activities for the period July-December 2003.

### *CCOP Newsletter Vol. 29 No. 1&2 (January-June 2004)*

The Newsletter presents highlights of activities for the period January-June 2004.

### *CCOP Annual Report for year 2003*

The CCOP Annual Report presents a summary of all the activities of CCOP for the year 2003.

## CCOP Annual Session Proceedings

### *Proceedings of the 40<sup>th</sup> CCOP Annual Session Part I*

Proceedings of the 40<sup>th</sup> CCOP Annual Session Part I, documentation of the 40<sup>th</sup> CCOP Annual Session Meeting, 6-14 October, 2003, Kuala Lumpur, Malaysia (in CD-ROM).

### *Proceedings of the 40<sup>th</sup> CCOP Annual Session Part II*

Thematic Session on "Raising Awareness on the Importance of Geoscience and Promotion of the Use of Geoscience Information and Services", 10 October 2003, Kuala Lumpur, Malaysia (Hard-copy).

## CCOP Steering Committee Meeting Reports

### *Report of the 43<sup>rd</sup> CCOP Steering Committee Meeting*

A report of the Steering Committee Meeting held in Phuket, Thailand on 17-19 March 2004 (CD-ROM).

### *Report of the 44<sup>th</sup> CCOP Steering Committee Meeting*

A report of the Steering Committee Meeting held in Tsukuba, Japan on 19-20 November 2004 (Hard-copy).

## Technical Activities Reports/Proceedings

### PPM Project

#### *Report of the PPM Mid-Term Review*

A report on the PPM Mid-Term Review conducted in July 2004 to assess the implementation of the Petroleum Policy and Management (PPM) for the first half of the Project's term.

## PETRAD Seminars

### *Report of the CCOP-PETRAD-MLR-CGS-CNOOC Seminar on Reservoir Management and Technology*

A documentation of the CCOP-PETRAD-MLR-CGS-CNOOC Seminar on Reservoir Management and Technology in Kunming, People's Republic of China on 12-15 January 2004 (CD-ROM).

### *Report of the ASCOPE-CCOP-PETRAD-PETROVIETNAM Workshop on Gas Infrastructure Governance Process*

A documentation of the ASCOPE-CCOP-PETRAD-PETROVIETNAM Workshop on Gas Infrastructure Governance Process in Do Son, Vietnam on 16-17 February 2004 (CD-ROM).

### *Report of the CCOP-PETRAD-MLR-CGS-CNOOC Seminar on Operations and Maintenance Management*

A documentation of the CCOP-PETRAD-MLR-CGS-CNOOC Seminar on Operations and Maintenance Management in Tianjin, People's Republic of China on 8-12 March 2004 (CD-ROM).

### *Report of the CCOP-PETRAD-MLR-CGS-CNOOC Seminar on HSE Management*

A documentation of the CCOP-PETRAD-MLR-CGS-CNOOC Seminar on HSE Management in Tianjin, People's Republic of China on 26-29 July 2004 (CD-ROM).

### *Report of the CCOP-PETRAD-MLR-CGS-SINOPEC Seminar on Petroleum Geochemical Exploration*

A documentation of the CCOP-PETRAD-MLR-CGS-SINOPEC Seminar on Petroleum Geochemical Exploration in Anhui, People's Republic of China on 9-13 August 2004 (CD-ROM).

### *Report of the CCOP-PETRAD-PTT Top Management Seminar on Enterprise Risk Management*

A documentation of the CCOP-PETRAD-PTT Top Management Seminar on Enterprise Risk Management in Bangkok, Thailand, 23 November 2004 (CD-ROM).

### *Report of the CCOP-PETRAD-PTT Workshop on Enterprise Risk Management*

A documentation of the CCOP-PETRAD-PTT Workshop on Enterprise Risk Management in Bangkok, Thailand, 23-24 November 2004 (CD-ROM).

## CCOP Homepage

A new CCOP Homepage was launched in June 2004 which includes new features for news items, discussion and links to the Member Countries, Cooperating Countries and Organizations webpages, aside from the links to all the projects coordinated and organized by CCOP. The website address is <http://www.ccop.or.th>

## Sales of Publications

The proceeds from the publication sales during the reporting period amounted to **USD 1,543.13** in 2004.



From 1 January to 31 December, 2004, Member Countries' total cash contributions amounted to **USD 288,353.13** of which **USD 118,534.09** were cash contributions for 2004, **USD 169,819.04** for the arrears of 2001 to 2003. The expected arrears of cash contributions from the rest of the Member Countries are **USD 176,465.91** for 2004 and **USD 30,000** for 2003 (Table 3).

In addition to Member Countries' contributions, the amount of **USD 123,004.51** was earned from the management of projects during January - December 2004 period. It is an increase of about 230% over the previous year (USD 53,408.27). **USD 1,543.13** was publications sales, and other incomes during the period amounted to **USD 1,722.72** including interest earned, gain (loss) on exchange and miscellaneous incomes. The total income during the period was **USD 411,178.05**. The expenditure of **USD 357,757.37** was incurred from operation and administrative support. The cash balance as at end of December 2004 amounted to **USD 354,972.31** (Table 4 and Figure 2).

The total CCOP Projects cash balance as at 31 December, 2004 amounts to **USD 479,976.79**, comprising CCOP JECF Fund **USD 3,741.13** and CCOP PPM Fund **USD 476,235.66** (Table 5).

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 24<sup>th</sup> floor of the Thai CC Tower, Sathorn Tai Road, Sathorn, Bangkok, Thailand. This provision amounts to **USD 34,960** for the year 2004.

**Table 3: Member Countries' Cash Contributions**  
For the year ended 31 December, 2004  
(amount in US Dollars)

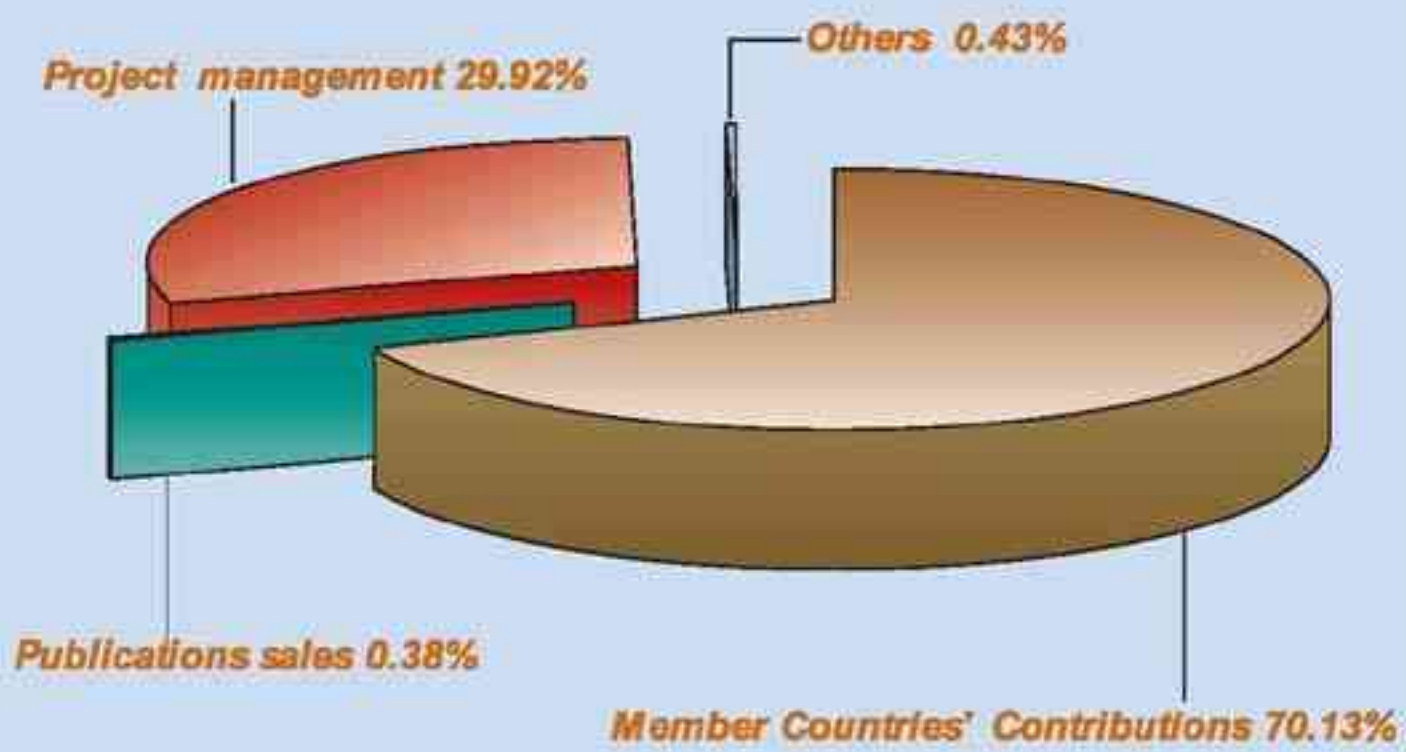
Member Country	Received in the year 2004		Expected to receive in the year 2005		
	Arrears of 2001-2003 Contribution	2004 Contribution	Arrears of 2003 Contribution	Arrears of 2004 Contribution	2005 Contribution
Cambodia		5,000.00			5,000.00
China	50,000.00			50,000.00	50,000.00
Indonesia	75,000.00			25,000.00	25,000.00
Japan					-
Korea	30,000.00		30,000.00	60,000.00	60,000.00
Malaysia		50,000.00			50,000.00
Papua New Guinea	10,000.00	4,550.27		5,449.73	10,000.00
Philippines	4,819.04	3,983.82		36,016.18	40,000.00
Singapore	-	-	-	-	-
Thailand		40,000.00			40,000.00
Vietnam		15,000.00			15,000.00
<b>Total</b>	<b>169,819.04</b>	<b>118,534.09</b>	<b>30,000.00</b>	<b>176,465.91</b>	<b>295,000.00</b>

**Table 4: CCOP Financial Statement**  
**For the year ended December 31, 2004**  
**(amount in US Dollars)**

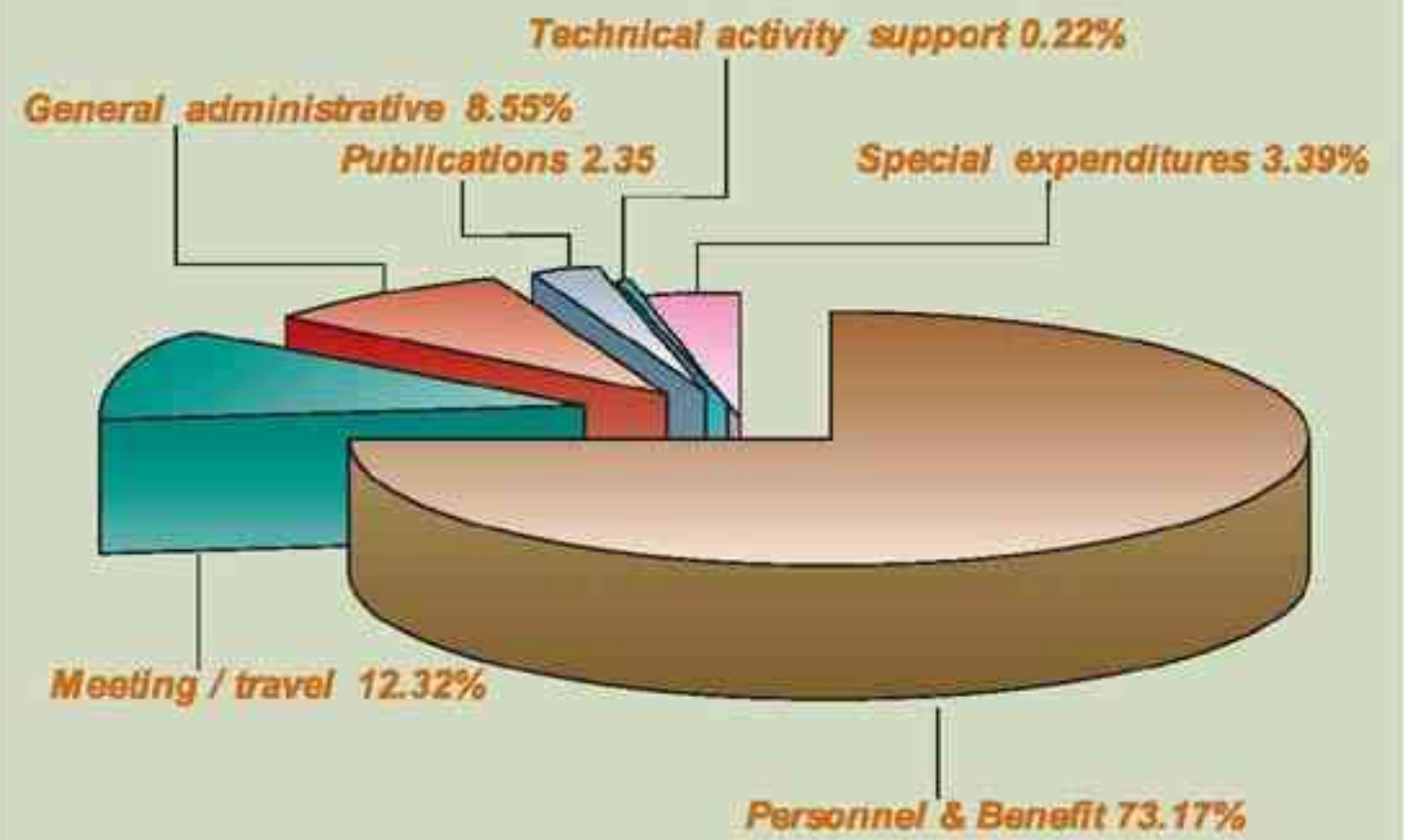
	2003		2004	
	USD	%	USD	%
<b>Fund Balance</b>	<b>390,531.03</b>		<b>344,576.82</b>	
<b>Income:</b>				
Member Countries' Contributions	235,180.96	77.75	288,353.13	70.13
Publications sales	2,044.03	0.68	1,543.13	0.38
Project management	53,408.27	17.68	123,004.51	29.92
Others	11,866.15	3.91	(1,722.72)	(0.343)
<b>Total Income</b>	<b>302,499.41</b>	<b>100.00</b>	<b>411,178.05</b>	<b>100.00</b>
<b>Expenditures :</b>				
Personnel expenses	252,432.12	73.72	261,785.29	73.17
Meeting / travel expenses	47,703.65	13.93	44,052.79	12.32
General administrative expenses	23,891.44	6.98	30,597.84	8.55
Publications	6,741.49	1.97	8,401.61	2.35
Technical activity support	100.00	0.03	781.01	0.22
Special expenditures	11,536.07	3.37	12,138.83	3.39
Others	-	-	-	-
<b>Total Expenditure</b>	<b>342,404.77</b>	<b>100.00</b>	<b>357,757.37</b>	<b>100.00</b>
<b>Income over/(under) expenses</b>	<b>(39,905.36)</b>		<b>53,420.68</b>	
<b>Total Fund Balance before adjustment.</b>	<b>350,625.67</b>		<b>397,997.50</b>	
<b>Adjusting entries</b>				
Unrealized gain/(loss) on exchange rate for Retained Earning	(6,048.85)		2,310.53	
Tax payable	-		-	
<b>Year-end Balance</b>	<b>344,576.82</b>		<b>400,308.03</b>	
<b>Adjustment to reflect actual cash inflow/(outflow) :</b>				
Receivables & Advance	(4,877.46)		-	
Office equipment (net)	(32,339.55)		(21,760.54)	
Advance	-		(24,688.61)	
Tax deductible	638.03		1,113.43	
<b>Year-end Cash Balance</b>	<b>307,997.84</b>		<b>354,972.31</b>	

**Figure 2. Revenue and Expenditure for the Years 2003 and 2004**

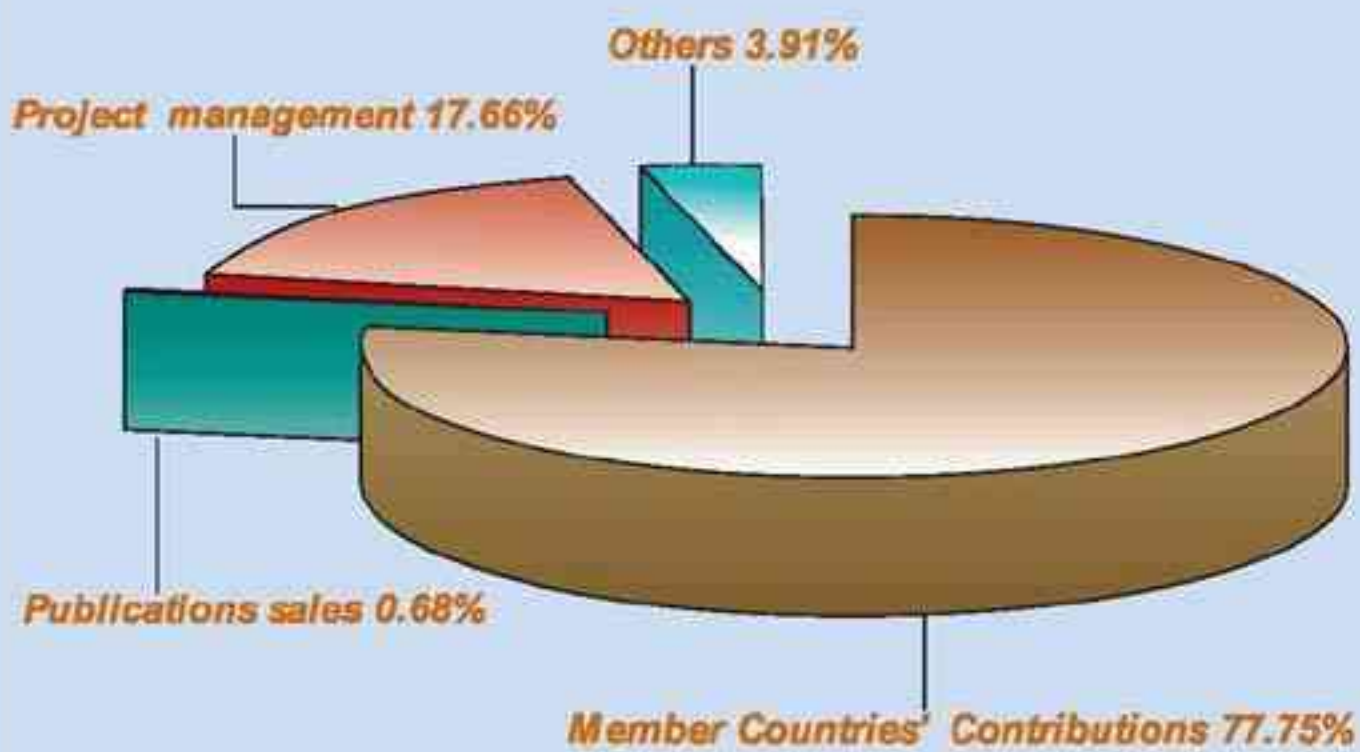
**Revenue for the year 2004  
(USD 411,178.05)**



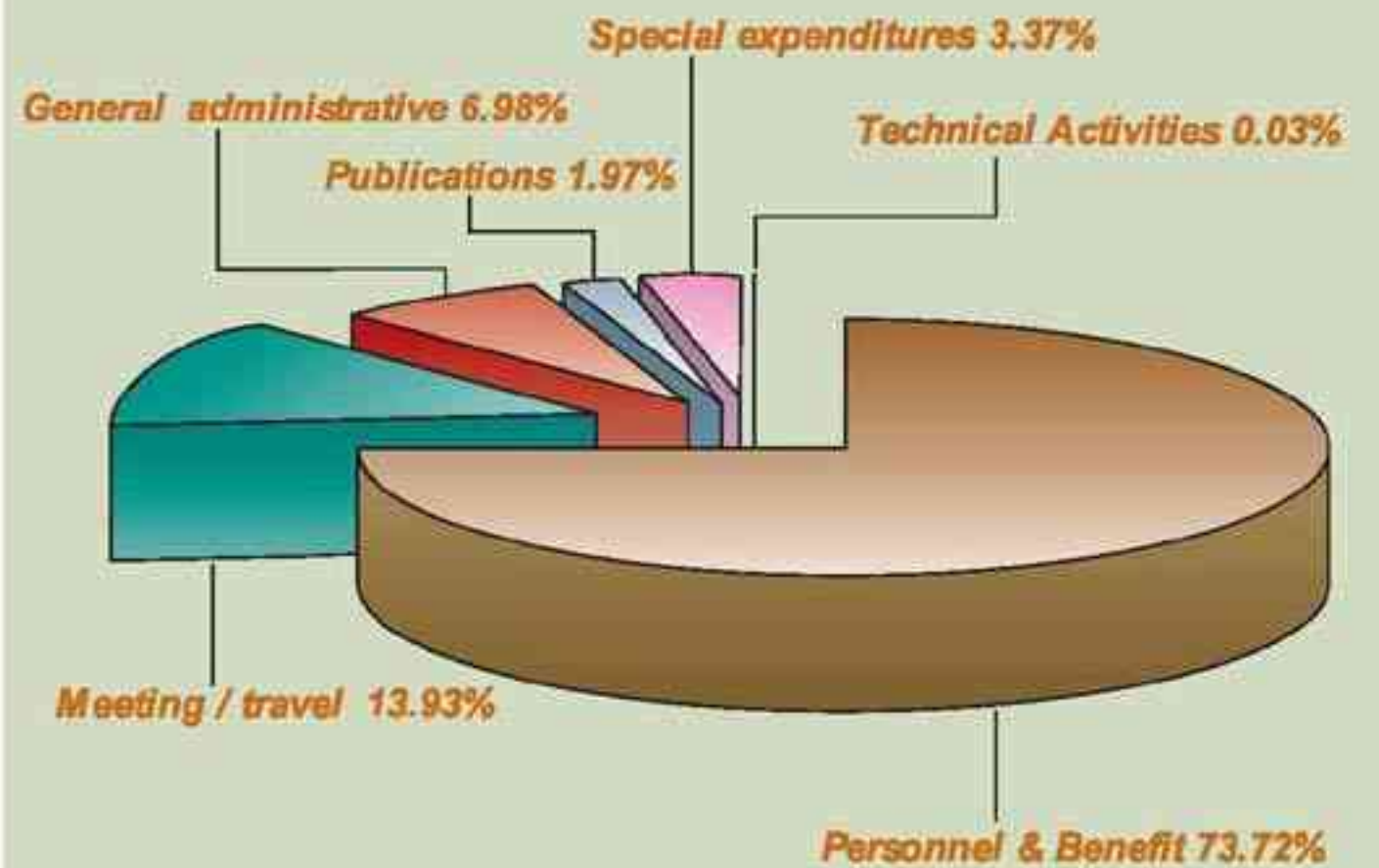
**Expenditure for the year 2004  
(USD 357,757.37)**



**Revenue for the year 2003  
(USD 302,499.41)**



**Expenditure for the year 2003  
(USD 342,404.77)**



**Table 5: CCOP Projects Financial Statement**  
**For the year ended December 31, 2004**  
**(amount in US Dollars)**

	JECF (A) FUND		PPM Fund	
	2003	2004	2003	2004
<b>Fund Balance</b>	84,207.24	30,034.61	323,272.94	277,767.30
<b>Income :</b>				
Received from Fund	-	-	443,877.65	997,375.01
Others	2,398.00	142.47	8,936.15	(1,122.51)
<b>Total Income</b>	2,398.00	142.47	452,813.80	996,252.50
<b>Expenditures :</b>				
Technical Activities Expenses	54,898.74	26,435.90	490,549.37	753,456.70
<b>Total Expenditure</b>	54,898.74	26,435.90	490,549.37	753,456.70
<b>Income over/(under) expenses</b>	(52,500.74)	(26,293.43)	(37,735.57)	242,795.80
<b>Adjusting entries :</b>				
Unrealized gain/(loss) on exchange rate for Retained Earning	(1,671.89)	-	(7,770.07)	1,781.33
<b>Year-end Balance</b>	30,034.61	3,741.18	277,767.30	522,344.43
<b>Adjustment to reflect actual cash inflow/(outflow) :</b>				
Tax deductible	-	-	-	2.74
Advance	-	-	(44,252.79)	(46,111.51)
Remittance to CCOP General Fund	-	-	-	-
Office equipment (net)	(0.05)	(0.05)	80.23	-
<b>Year-end Cash Balance</b>	<b>30,034.56</b>	<b>3,741.13</b>	<b>233,594.74</b>	<b>476,235.66</b>



# List of CCOP Member Countries, Cooperating Countries and Organizations, Honorary Advisers and Technical Adviser

## CCOP MEMBER COUNTRIES AND PERMANENT REPRESENTATIVES (11)

### CAMBODIA:

H.E. Mr. Sov Chivkun  
Permanent Representative of Cambodia to CCOP  
Director-General  
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:

Dr. Simon F. Sembiring  
Permanent Representative of Indonesia to CCOP  
Director-General  
Directorate General of Geology and Mineral Resources  
Ministry of Energy and Mineral Resources (MEMR)  
Jl. Prof. Dr. Supomo, S.H.No.10, Jakarta 12870  
Indonesia

### JAPAN:

Mr. Toshihisa Takata  
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:

Dr. Chu Ling Heng  
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:

Mr. Kuma Aua, OBE  
Permanent Representative of Papua New Guinea to CCOP  
Secretary  
Department of Mining  
Private Mail Bag, Port Moresby Post Office  
National Capital District  
Papua New Guinea

### THE PHILIPPINES:

Mr. Horacio C. 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. Somsak Potisat  
Chairman, CCOP Steering Committee  
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  
PETRO VIETNAM  
22, Ngo Quyen Street, Hanoi  
Socialist Republic of Vietnam



## CCOP COOPERATING COUNTRIES AND REPRESENTATIVES (14)

### AUSTRALIA:

Prof. Clinton Bruce Foster  
Representative of Australia to CCOP  
Petroleum Research Group Leader  
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 Jenner Street, B-1000 Brussels  
Belgium

### CANADA:

Mr. Ralph G. Currie  
Representative of Canada to CCOP  
Head, Natural Resources Canada  
Geological Survey of Canada (GSC)  
Pacific Geoscience Centre  
9860 West Saauich 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 (GEUS)  
Øster Voldgade 10  
DK-1350, Copenhagen K  
Denmark

### FRANCE:

Dr. Hubert Zeegers  
Director, International Division  
Bureau de Recherche Géologiques et Minière (BRGM)  
3, Avenue C. Guillemin - BP 6009  
45060 Orléans Cedex 2  
France

### GERMANY:

Prof. Dr. -Ing. Friedrich-W. Wellmer  
President  
Bundesanstalt für Geowissenschaften und Rohstoffe  
(BGR)  
Federal Institute for Geosciences and Natural Resources  
Stilleweg 2, Post Box 510153  
D-30655 Hannover, Germany

### JAPAN

(see Member Countries)

### THE NETHERLANDS:

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

### NORWAY:

Mr. Erling Kvadsheim  
Representative of Norway to CCOP  
Project Director  
Norwegian Petroleum Directorate (NPD)  
Prof. Olav Hanssensvei 10  
P.O. Box 600, N-4003 Stavanger  
Norway

### RUSSIAN FEDERATION:

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

### SWEDEN:

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

### SWITZERLAND:

--

### UNITED KINGDOM:

Dr. David C. Ovidia  
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:

Mr. Zainal Abidin Matassan  
Secretary-in-Charge  
ASCOPE (Asean Council on Petroleum)  
Level 45, Tower 1, Petronas Twin Towers  
Kuala Lumpur City Centre  
50088 Kuala Lumpur, Malaysia

### CIFEG:

Mr. Michel Laval  
Managing Director  
International Center for Training and Exchanges  
in the Geosciences (CIFEG)  
3 Avenue Claude Guillemin  
B.P. 6517, 45065 Orleans Cedex 2  
France

### CPC:

Dr. David G. Howell  
President, Circum Pacific Council  
U.S. Geological Survey, MS-975  
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. Patricio A. Bernal  
Executive Secretary  
Intergovernmental Oceanographic Commission (IOC)  
1 rue Miollis, Paris 75732  
France

### IOMAC:

Dr. Hiran W. Jayawardene  
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:

Dr. Ed F.J. de Mulder  
Senior Advisor TNO-NITG  
Professor Subsurface Management TU Delft  
President International Union of Geological Sciences  
(IUGS)  
Theme Coordinator Delft Cluster Subsurface  
Management  
Van Dortstraat 52, 2023 JP Haarlem  
The Netherlands

### PETRAD:

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

### UN-ESCAP:

Dr. Hak-Su Kim  
Executive Secretary  
UN-ESCAP, United Nations Building  
Rajdamnern 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  
Rajdamnern Nok Avenue, Bangkok 10200  
Thailand

### UNESCO:

Dr. F. Wolfgang Eder  
Director, Division of Earth Sciences  
United Nations Educational, Scientific and  
Cultural Organization (UNESCO)  
SC/GEO, 1 rue Miollis, 75732 Paris-Cedex 15  
France

### WORLD BANK:

Mr. Gotthard 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 (16)

### China:

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

Mr. Wang Xionglian  
Honorary Adviser to CCOP  
China Geological Survey (CGS)  
#24, Huangsi 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. Titiran No. 1, Bandung 40133  
Indonesia

Prof. Dr. Adjat Sudradjat  
Honorary Adviser to CCOP  
c/o Directorate General of Geology and  
Mineral Resources  
Ministry of Energy and Mineral Resources  
Jl. Prof. Dr. Supomo, S.H.No.10  
Jakarta 12870, Indonesia

### Japan:

Dr. Yoshihiko 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

### The Philippines:

Dr. Guillermo R. Balce  
Honorary Adviser to CCOP  
Undersecretary  
Department of Energy (DOE)  
PNPC Complex, Merritt Road  
Fort Bonifacio, Metro Manila  
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. Schalke  
Honorary Adviser to CCOP  
Starkenborglaan 10  
2341 BM Oegstgeest  
The Netherlands

### Thailand:

Mr. Sermsakdi Kulvanich  
Honorary Adviser to CCOP  
Sermsakdi 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 President and Provost  
Texas A&M University  
1248 TAMU, College Station  
Texas 77843-1248, U.S.A.

## CCOP TECHNICAL ADVISER (1)

### Thailand:

Dr. Prinya Nutalaya  
Technical Adviser to CCOP  
473, Soi Utane 12, Sri Nakorn Pattana  
Navamintr Road, Bung Khum  
Bangkok 10240



# **GEOSCIENCE for a SUSTAINABLE FUTURE**

*The Coordinating Committee for Geoscience Programmes in East and Southeast Asia (CCOP) is an intergovernmental organization whose mission is 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.*

*To this end, CCOP promotes capacity building, technology transfer, exchange of information and institutional linkages for sustainable resource development, management of geo-information, geohazard mitigation and protection of the environment.*

## **Member Countries:**

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

## **Cooperating Countries:**

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

## **Cooperating Organizations:**

ASCOPE, CIFEG, CPC, EURO-GEOSURVEYS, GETECH, IOC, IOMAC, IUGS, PETRAD, UN-ESCAP, UNEP, UNESCO, WORLD BANK.