



CASM Asia-Pacific in CCOP region and Some Activities in 2008-2009

Present by

Dr. Nguyen Nhu Trung
Geo-Resource Sector Coordinator
CCOP Technical Secretariat,
trungnn@ccop.or.th

**In cooperation with Dr. S. Murao and National
Coordinator**



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CCOP

**Coordinating Committee for Geoscience
Programmes in East and Southeast Asia**



Vision:

Geoscience for a Sustainable Future

Mandate:

**Promote and coordinate
joint applied geoscience
programmes for sustainable
development in East and Southeast
Asian countries**

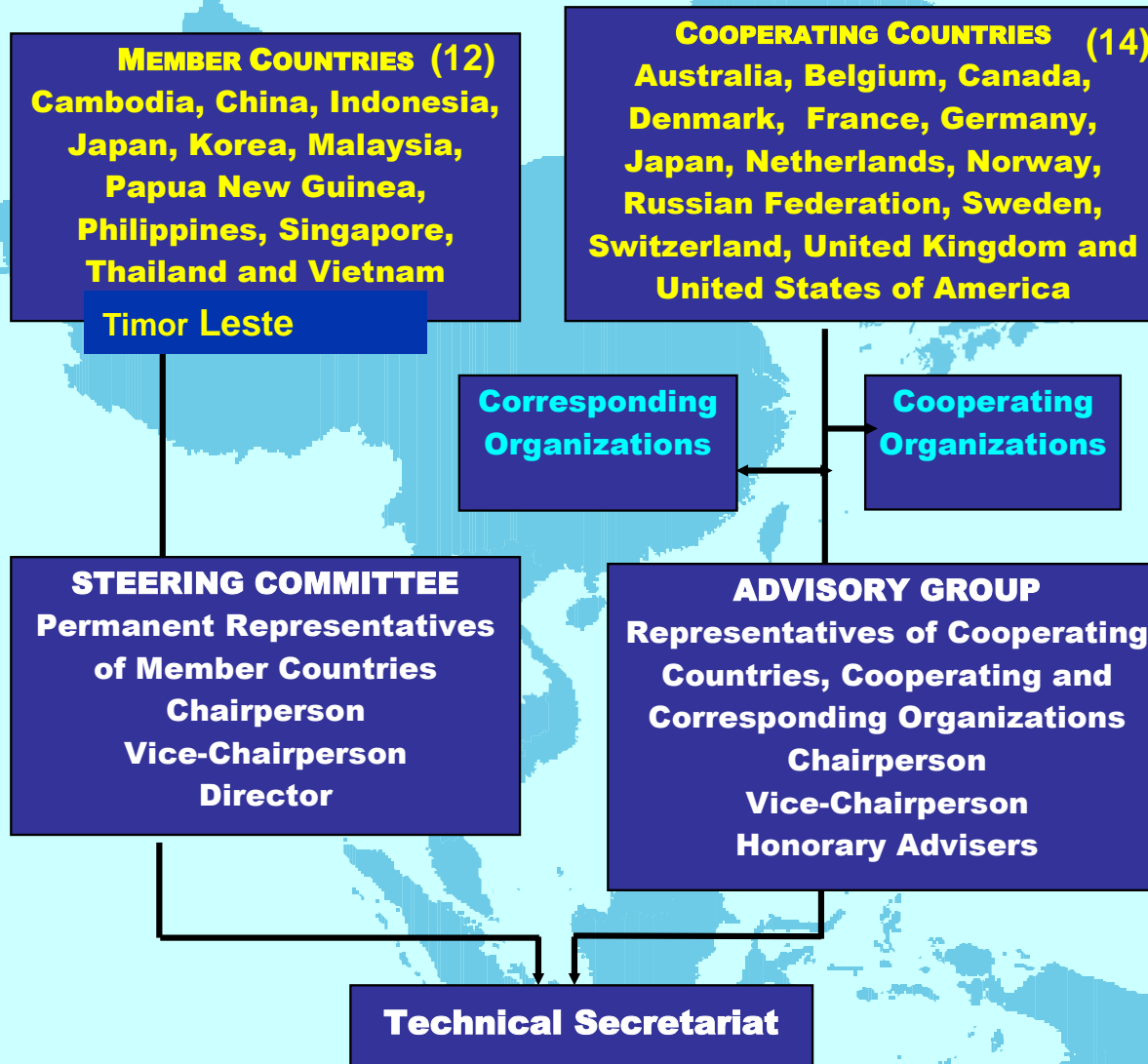


CCOP BACKGROUND

- **Established 1966 under UN ESCAP**
- **1987 became Intergovernmental Organization (UN funding continued)**
- **1991 full Intergovernmental Organization**
- **Close link maintained with UN through UN-ESCAP**



CCOP ORGANIZATIONAL CHART



ORGANIZATION ARRANGEMENT

STEERING COMMITTEE

- Policy making body,
- Members: 1 from each MC
- 2 Meetings a year

ADVISORY GROUP

- Input and advice on technical and cooperation issues
- Members: cooperating countries and organizations, honorary and technical advisers
- 1 Meeting during AS

TECHNICAL SECRETARIAT

- Implements decisions of SC
- Securing assistance, planning and coordinating,
- implementation of projects, training and other activities



ACTIVITIES

Focus : GEOSCIENTIFIC ACTIVITIES

- Capacity building**
- Geological/geophysical surveys**
- Regional map compilation**
- Data base development**
- Technology transfer**

For more information : www.ccop.or.th



A map of East and Southeast Asia, including China, Korea, Japan, and the Southeast Asian archipelago. The map is rendered in a light blue color against a white background. The text 'CASM in the CCOP region' is overlaid on the map in a large, bold, red font with a black outline.

CASM in the CCOP region



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

CASM under the CCOP's view

- ◆ The core problem of the CASM in CCOP region is *“Poor living and working conditions at mining sites”*
- ◆ The direct causes to this core problem:
 1. *Uncontrolled migration in mining sites and locations*
 2. *Lack of alternative livelihood*
 3. *Very low income*
 4. *Lack of awareness on environment, health and safety;*
 5. *Not accessible to basic services*



CASM PROJECT IN CCOP

look back upon

INITIAL 3 YEAR PROJECT:

- ◆ **The CASM-Asia Project has been endorsed by the 44th CCOP SC Meeting held on 9/2005 in Tsukuba, Japan:**
 - This project was supported by the World Bank, CASM Secretariat and Geological Survey of Japan, AIST. Under the recurrent of the project activities, CCOP cooperated with 2 projects supported by JSPS, Department of Mineral Resources, Thailand, Shizuoka University and University of Delhi
 - The objective of the project is to function as a hub for CASM-Asia 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.



CASM PROJECT IN CCOP

look back upon

- ◆ **The CASM Asia project held 4 workshops :**
 - *Inaugural Meeting of CASM-Asia Project , from July 25-26, 2005, Bangkok, Thailand.*
 - *CCOP CASM Asia Objective Oriented Project Planning (GOPP) Workshop, from December 30 – November 2, 2005, in Bangkok., Thailand.*
 - *CASM-Asia Workshop on Artisanal/Small-Scale Mining Social Issues, from August 16-18, 2006, in Hanoi, Vietnam.*
 - *CASM-Asia workshop on State of the Art of Science and Technology to Protect the Environment and the People, from November 27-29, 2006, in Bandung, Indonesia .*



CASM PROJECT IN CCOP look back upon

◆ Networking development:

- CASM CCOP networking was established in 2005 to deal the projects. CCOP Member countries have duly appointed their CASM National Coordinator or representative. We also have networking with Mongolia, India and Laos.



<http://casm-asia.ccop.or.th/>





IMPORTANT ISSUES IN THE REGION



1. **Environmental concerns** - water pollution, deforestation, river siltation, erosion, Hg emission, toxic chemicals, noise and dust
2. **Health and safety** – unsanitary and poor living conditions, poor access, HIV aids, mercury and cyanide poisoning, silicosis, malaria, water-borne diseases, dangerous working areas, unventilated underground workings, mine gasses and land slice.
3. **Social issues** - child labor, gambling, prostitution, drug addicted and alcohol abuse, gender inequality, robbery and theft, literacy, uneasy relations with local residents and conflicts between SSM and large mining companies and local residents
4. **Legal matters** - lack of rules and regulations, inappropriate laws, ineffective or non-implementation of rules and regulations, unlicensed and unregulated mining, illegal trading and marketing of mineral products, land-use conflicts, perceived policy of governments being biased towards large-scale mining, and in cases lack of attention given by the Government.
5. **Technical and financial** – lack of skills and knowledge, appropriate and useful information, capital and sources of finance, infrastructure and difficult access to ASM sites



OUTSTANDING PROBLEMS in Vietnam

1. The escrow deposit for environmental reclamation has not been implemented adequately by the mining companies. Therefore upon the termination of the mining operation, the deposit amount is quite not sufficient for implementing the environmental reclamation;
2. The mining companies do not keep the environmental monitoring regulation in mining and mineral processing. Some companies do, but not adequately, not meet the specified requirements. The treatment of environmental pollutants, especially waste water, solid waste is still not appropriately carried out, especially in coal mines and metallic ore mines;
3. Many mines are in operation without technical mine managers and technical design; in case they have, they do not have qualification or capability managers required by regulations or not keep up the approved designs and labour safety regulation;



OUTSTANDING PROBLEMS in Vietnam

4. Due to lack of investment capital, the mining and mineral processing technologies of the mining companies are very poor, leading to low recovery and high wastage of mineral resources, leading to adverse impacts on the environment, especially the soil and water environment.
5. The mission of compiling periodically progress maps, inventoring the unmined reserves and the annual workplan according to the regulations are not fully implemented by mining companies.
6. The artisanal mining activities for earning their livelihood are widespread, but there is still no regulation for controlling and managing these activities.



A map of East and Southeast Asia, including China, Korea, Japan, and the Southeast Asian archipelago, rendered in a light blue color. The map is centered in the background of the slide.

Some concrete activities in 2008-2009



Implement and Amend the laws

Philippine Government in 2008

The national government in collaboration with local government has been intensifying its campaign to ensure that all SSM laws, rules and regulation are properly implemented on the ground:

- ◆ There are 62 provincial and 9 City Mining Regulatory Boards to address the various concerns on SSM operation
- ◆ Monitoring/inventory of 105 SSM areas to ensure that the permitted miners are properly complying with the existing regulation .
- ◆ Training of 399 small scale miner in various SSM area on safety and health , social and environmental protection.
- ◆ Continuous monitoring and information dissemination to discourage/ eliminate child labors in SSM operation.
- ◆ Small Scale mines are required to acquire the mineral ore export permit issued by the local government. This was made to ensure that proper taxes are being collected and the mineral product come from legitimate sources.



Implement and Amend the laws

Philippine Government in 2008

- ◆ **Settle conflicts between SSM and Large Scale Company:**
 - In case where SSM encroached inside the mining tenement, large scale mine resorted to peaceful co-existence with the small scale Miners by allowing them to operate in a certain area of the mining tenement with the condition that tenement holder retains the supervision and control over the SSM operation and certain share with the ore mined.
 - In case, Large scale mines whose remaining deposits cannot be economically mined anymore through large scale mining operation have entered into contract agreement with small scale miners by adopting small scale mining operations and came out with a sharing scheme that are mutually acceptable to both parties.



Implement and Amend the laws

Philippine Government in 2008

Legislative initiative now are in Philippine Congress:

- ◆ An act creating the magna carta for small scale mining program. House Bill No. 5583
- ◆ An act to encourage, protect and assist small scale miners, promote strengthen and institutionalize the SSM industry and provide for its efficient regulation. House Bill No. 4146
- ◆ Amending certain sections of republic act 7076 or the people small scale mining act of 1991 and for other purposes. House Bill No. 7876
- ◆ Proposed mineral development code (Protocol) for responsible small, medium and large scale mining for Mindoro province.



Activities from Mongolia Government

◆ Confiscation of Mercury Mills

- Government of Mongolia inspected two times in 2007 and 2008 Enterprises and individuals (ASM people) who used chemical substances in their activities.
The inspections resulted in revealing a fact that a total of 53.2 hectares were polluted due to 200 thousand tons of waste containing mercury and cyanide. This area covers over 120 points in ten aimags. A total of 145 mills processing gold ore with mercury were confiscated.
- This action could decrease number of Mercury usage in the Country in general.



Activities from Mongolia Government

- ◆ Clean up Mercury and cyanide polluted spots
 - A Government resolution was implemented to detoxify the polluted fields and carry out other related measures.
 - The 50830.5 tons of mercury –gold waste accumulated in 92 points of 13 soums have been transported and earth-stripping and neutralization have been done on 24,695 square meters of the polluted fields. Some Aimags still waiting Government budget for detoxification.
 - Samples were taken before and after the neutralization, 128 soil, 42 air and 28 water samples were investigated.



INTRODUCE NEW TECHNOLOGIES

PIXE – Human hair analysis

1. **CCOP - CASM Asia-Pacific - FAO Colloquium on PIXE Analysis Designed for International Cooperation of Environmental Studies, Bangkok, November 5th, 2008**
 - ✓ The objective: to introduce the PIXE facility at Iwate Medical University Cyclotron Center, to hear & respond to user demand for the facility, and to step up the university's support for environmental study and management by international organizations and local communities
 - ✓ The colloquium is composed of invited talks, hands-on training of target preparation and free discussion.
 - Hands-on focused on target preparation of human hairs using the sample holder exclusively designed for the Iwate Medical University Cyclotron Center.
 - The free discussion extracted technological and social trends of chemical analysis that are emerging from interaction between laboratories and international organizations and local communities.
 - The **Colloquium** has made participants fully understand the principles of PIXE, notice issues to be jointly envisaged by the laboratory and users



INTRODUCE NEW TECHNOLOGIES

GERAS - Soil pollution analysis

- ◆ **CCOP – DMR – AIST-CASM Asia-Pacific Colloquium on “GERAS”, a Computer Simulation Software for Environmental Studies, 1st January 2009, Bangkok, Thailand.**
- ◆ The colloquium is held by CCOP in cooperation with DMR, Thailand, National Institute for Advanced Industrial Science and Technology (AIST) and CASM Asia-Pacific. The Colloquium disseminates the latest information to the scholars, officers, diplomats and practitioners in Bangkok.
- ◆ The subjects of Colloquium:
 - (1) Geological pollution and its medical problems in Asian countries includes geological survey for pollution and medical geology, soil remediation by plant and microbiology and arsenic problems of groundwater;
 - (2) Development of geo-environmental risk assessment system, includes methodology of exposure and risk assessment and details of exposure models and databases;
 - (3) Demonstration of “GERAS”. This is a simulation tool for soil pollutions developed at GREEN/AIST.



TRAINING FOR SOLVING SOCIAL ISSUE in Thailand

Gemstone and lapidary Training for solving “sex workers” in Thailand

- ◆ The Rahab Ministries is a group established to assist sex workers to work and find alternative profession. It hold the following objectives:
 - To share the love of Jesus Christ through friendship evangelism and social concern.
 - To provide practical help and emotional support to women working in prostitution.
 - To provide opportunities for education, vocational Training and alternative Employment.
- ◆ CASM Asia-Pacific talked with them several times and learnt that lapidary could be a promising component of their activity.



TRAINING FOR SOLVING SOCIAL ISSUE in Thailand

- ◆ After some research, CASM Asia-Pacific found Bangrak Vocational Training School in Bangkok where they hold classes for gemstone and lapidary. The School was established to help poor people .
- ◆ The school fee is 105 Baht/150 hours. The application criteria for the training course are as follows:
 - (1) Over 14 years of age; (2) Literate; (3) In good health and (4) Not drug addicted
- ◆ Four times a year, the school offers three 150-hour courses in terms of mineral and lapidary:
 - (1) cutting and polishing technique,
 - (2) examination and analysis,
 - (3) jewelry design.The 150 hours mean the product of three-hour training a day, five days a week and two-and-half month period.



TRAINING FOR SOLVING SOCIAL ISSUE in Thailand

In 2009, the School has 4 semesters a year:

- The first semester starts on 1 May and ends on 14 July. The application is accepted from 1 March to 30 April.
- The second semester: 15 July to 25 September with application period 1 June – 14 July.
- The third semester: 1 October – 12 December, and
- The fourth semester: 15 January – 27 March.



TRAINING FOR SOLVING SOCIAL ISSUE in Thailand

◆ Some products of Rahab Ministries:



FOLLOW-UP WORKS

- ◆ Reinforcement of CASM Asia-Pacific for wider working relationship and better performance. The online CASM database need to be updated and disseminated to the MCs and share with CASM network ,CASM-China and CASM-Africa
- ◆ Concentrate more activities of human security and other topics besides geosciences in CASM Asia Pacific .
- ◆ Greater direct communication, contact and exchange between CASM-Asia Pacific with the small scale mining communities in Member Countries.
- ◆ Enhance capacity building and training of ASM miner.
- ◆ Seek greater opportunities for assistance and support by international / regional organizations, as well as greater direct support by Member Countries.





THANK YOU
for your attention!

Dr. Nguyen Nhu Trung
Geo-resource Coordinator
CCOP T/S
trungnn@ccop.or.th

