



**Asia-Pacific  
Economic Cooperation**

**Human Capacity Building  
for Natural Resources Development  
and its Environmental Impacts**

**Tsukuba, Japan, Nov.-Dec., 2007**

**APEC Industrial, Science and Technical  
Working Group**

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(2) Tohoku Region (11<sup>th</sup>-13<sup>th</sup>, December)

Guided by MARUMO Katsumi (Geological Survey of Japan, AIST)

IST01/2007A

## Human Capacity Building for Natural Resources Development and its Environmental Impacts

### Introduction

Eikichi Tsukuda

Director General of Geological Survey of Japan, AIST

Welcome to Geological Survey of Japan, AIST (Advanced Industrial Science and Technology). First of all, I would like to express a great thanks to all the participants, China, Korea, Russia, Thailand, Viet Nam for attending the training course.

The project “Human capacity building for natural resources and its environmental impacts in APEC region” has been approved in 2007 by Asia Pacific Economic Cooperation, Industrial Science and Technology working Group (APEC-ISTWG). I would like also to thank co-sponsoring economies, Korea, Chinese Taipei, New Zealand, Thailand, Philippines, Papua New Guinea, Chile, Viet Nam, for supporting the project.

Recently man-made disasters have increased with the development of natural resources: soil contamination, landslide, subsidence due to pumping groundwater. The developments are necessary to maintain our society. Therefore, the objective of the training is the technology transfer about guideline of natural resources development and its environmental impacts, environmental impact assessment, natural resources assessment, public awareness, and measurement of aggregate quality. This will bring about national regulations and guidelines about natural resources development and its environmental impacts in order to ensure the long-term sustainable growth in APEC region. This will contribute much to developing economies, where a rapid economical growth may cause environmental deteriorations. Therefore, the training course will be beneficial to learn the advanced technology and share the scientific knowledge to minimize the impacts of human intervention to nature.

Japan is a densely populated island and suffered from natural hazards which impact was enhanced by aggregate and mineral resources development for long years. Therefore, Japan has developed its scientific knowledge and technologies to control resource development in sustainable manner. Recently almost ore mines in Japan have been closed, and only the environmental problems remain to be solved. We will show

you previous Japanese cases without considering the environmental effects in Japan. We are trying to remove the effects.

The participants are requested to present country reports on the environment impacts, so that we can exchange the information and experience. We have more than 17 lectures and two field excursions in this training course: the developments of energy, mineral resources, ground water, aggregates and their environmental impacts, soil contamination, risk management. Active discussions are invited in the training course. Moreover, we have plans two field trips: in Chiba prefecture, Kanto district, and in Iwate and Akita prefectures, northeast Japan.

The total management for natural resources development and its environmental impacts contributes not only to APEC member economies but also to the entire world, because the issue is borderless and global. APEC region has Earth Scientists' and Engineers' networks with two intergovernmental organizations, CCOP and SOPAC, and a non-profit international organization, CPC.

I would like to recommend you to construct the human network with the participants and lecturers, GSJ members as well as to accumulate the knowledge.

## Human capacity building for natural resources development and its environmental impacts in APEC region

	Date		AM	PM
1	26.Nov	Mon	Arrival	
2	27	Tue	Orientation and GSJ tour	Economy report
3	28	Wed	Economy report	Remote sensing [Isao Sato]
4	29	Thu	Methane hydrate [Osamu Matsubayashi]	Groundwater contamination [Mio Takeuchi, Ming Zhang]
5	30	Fri	Oil resource [Yoshihisa Okuda]	Environmental impact assessment [Dr. Tatiana Selivanova]
6	1.Dec	Sat	Tsukuba tour	Holiday
7	2	Sun	Holiday	Holiday
8	3	Mon	Water resource [Kasumi Yasukawa, Isao Machida]	Geological sequestration of CO <sub>2</sub> [Toshiyuki Tosha]
9	4	Tue	Landslide [NIED, Naoki Sakai & Ryohei Misumi]	Geo-Information Technology [Shinji Takarada]
10	5	Wed	Risk governance [Atsuo Kishimoto]	Geothermal resource [Hirofumi Muraoka, Tsuneo Ishido, Mihuhiko Sugihara]
11	6	Thu	Aggregates resources [Ken Ikehara]	Aggregates Resources [Masafumi Arita]
12	7	Fri	Risk management [Dr. Durucan]	Natural gas [Yoshihisa Okuda]
13	8	Sat	Field Seminar [Dr. Arita & Sudo]	Field Seminar [Dr. Arita & Sudo]
14	9	Sun	Holiday	Holiday
15	10	Mon	Crisis of concrete civilization [Masafumi Arita]	Soil contamination [Takeshi Komai]
16	11	Tue	Field Seminar (Mining) [Katsumi Marumo]	Field Seminar (Mining) [Katsumi Marumo]
17	12	Wed	Field Seminar (Mining)	Field Seminar (Mining)
18	13	Thu	Field Seminar (Mining)	Field Seminar (Mining)
19	14	Fri	Evaluation of Course	Evaluation of Course
20	15	Sat	Departure	

※ 8 Dec: Field Seminar for aggregate quarry in Boso Area

※ 11-13 Dec: Field Seminar in Akita and Iwate Prefectures

## **Acknowledgements**

Japan would like to express a great thanks to co-sponsoring economies, Korea, Chinese Taipei, New Zealand, Thailand, Philippines, Papua New Guinea, Chili, and Vietnam for supporting this project. We, Geological Survey of Japan, AIST, on behalf of the contact point of Japan, would like to thank the economies such as Korea, China, Thailand, Papua New Guinea, and Vietnam for sending trainees.

## **PS**

We can get have valuable information on the problems of the environmental impacts from economy reports. We can construct human networks through the training course. We hope that each economy is making a plan to implement strategic actions or guidelines for development, conservation, and rehabilitation, to collaborate on further works, and to make a report or text book for distributing the knowledge.

Drs. Chikao Kurimoto, Akira Takada, and Yohei Uchida  
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