OJT Courses

Batch	Period	No. of Participants
First course	February 16, 2002 - March 2, 2002	20
Second course	October 22, 2002 - November 2, 2002	19
Third course	October 13, 2003 - October 22, 2003	17

WIDE Courses

Batch	Period	No. of Participants
First course	March 5, 2002 - March 30, 2002	22
Second course	July 16, 2002 - August 7, 2002	20
Third course	July 16, 2003 - August 7, 2003	20

In order to develop criteria for qualified engineers in disaster management, initial data collection activities have been done so far.

2.2.4. Output 4. "Establish training programs for engineers."

The Natural Disaster Management Course (MPBA) was established at the Faculty of Engineering of Gadjah Mada University and has been operated well with the 15 first graduates in April 2003 (Annex 8).

The 18 month course awards its graduates the master degree.

Batch	Period	No. of Participants	Reference
First course	September 2001 - April 2003	15 graduates	
Second course	September 2002 - April 2004	16 students	including one student financed by a Kabupaten government.
Third course	September 2003 - April 2005	18 students	including three students financed by Kabupaten governments.

The course was originally intended for staff of the Ministry of Settlement and Regional Infrastructure and of the provincial governments. For the quota of 15 students, the fee is paid by the Project and allowances are given by the ministry.

From the second year, some Kabupaten governments sent their staff to this course at the governments' own expense. It is noted that they are in serious need for having expertise in disaster management.

Since the original curriculum was prepared for the first course, it has been revised and reinforce in parallel with augmentation of teaching materials, based on joint meetings for monitoring comprising staff of the university and the STC as well as the Japanese experts.

Currently six subjects are lectured by Japanese, mostly by short term experts. Although some students are not proficient in English, lectures by Japanese lecturers are generally said to be understandable owing to the visual presentation including photos and pictures.

For future, in order to replace them by Indonesians, three Indonesian lecturers are studying in Japan, namely Mr. Faisal studying landslides with the Ministry of Education's scholarship, Mr. Mukilisin studying debris flow as a JICA's long-term trainee, and Mr. Nyoman studying natural environmental conservation in the same position.

According to the questionnaire survey to the graduates and students of the course, almost all the answerers expressed that the course is useful or suitable for their work, meeting their expectations.

While the course has been generally well operated, some issues can be pointed out.

- Possibility to incorporate related subjects like land management and water shortages
- More emphasis on field surveys
- More emphasis on practical methods to manage disasters
- More emphasis on social aspects of disaster management such as socialization and community participation
- Flexibility of the quota system to allow more students from local governments with higher demand
- Fostering Indonesian lecturers in the fields currently lectured by Japanese
- Strategy for the course operation toward its sustainability, including improvement of the curriculum, teaching materials

2.2.5. Related Activities - Advice for Reconstruction of Devastated Areas

Surveys of disaster hit sites conducted jointly by the Project team and staff of relevant offices of the Ministry of Settlement and Regional Infrastructure have been highly appreciated to be followed by repeated requests. The survey report of Gamalama Volcano in North Maluku Province resulted in construction by the Ministry.

1) Nias Island in West Sumatera Province (September 2001)
2) Kebumen in Central Java Province (October 2001 and February 2002)
3) Purworejo in Central Java Province and Kulonprogo in Yogyakarta Special Province (February 2002)
4) Cilacap and Purbalingga in Central Java Province (July 2002)
5) Banjarnegara in Central Java Province (September 2002)
6) Tarakan Island in East Kalimantan Province (September 2002)
7) Banyumas in Central Java Province (October 2002)
8) Papandayan in West Java Province (November 2002)
9) Mojokerto in East Java Province (January 2003)
10) Garut in West Java Province (March 2003)
11) Flores Island in Nusa Tenggara Province (April 2003)
12) Mt. Gamalama in North Maluku Province (August 2003)
13) Ciliwung River in Jakarta Special Province (September 2003)
14) Mrica Dam in Central Java Province (September 2003)
15) Bandung in West Java Province (October 2003)
16) Bahorok, Langkat in North Sumatera Province (December 2003)

2.2.6. Related Activities - Development of Popular Rainfall Gauges

In order to increase availability of rainfall data as a base for establishing a warning and evacuation system, a low cost popular rainfall gauge is being developed.

- Holding a nation-wide rainfall gauge idea contest
- Making prototypes of selected ideas in the contest
- Designing a low cost popular rainfall gauge
- Making the prototypes
- Testing the prototypes
- Improving the prototypes
- The rainfall gauge is registered with the World Water Council's database of innovative approaches regarding water.
- The Malaysian Ministry of Agriculture intends to publicize the rainfall gauge in the government magazines.

2.2.7. Related Activities - Development of Database System for Sabo Information

(1) Activities to establish the Disaster Management Information System

- Establishment of the internal network of the STC
- Incorporation of observation data of debris flow
- Surveys of common warning equipment used in rural areas in Indonesia
- Technology to prepare specifications for design has been transferred to the counterparts.
- The report on evaluation of warning sound and criteria to install the warning apparatuses was presented at the meeting of the Indonesian Standardization Association on October 15 2003.

(2) Activities to Collect and Analyze Information on Disaster Management

- Debris Disaster Prevention Symposium
- Seminar on Legal Systems for Disaster Management
- South-East Asian Regional Meeting on Sediment Related Disaster Management
- Study on legal systems for natural disaster prevention
- Workshop on legal system for natural disaster prevention

(3) Establishment of Database

- Transfer of technology to establish a disaster information database and input of data
- Transfer of technology to establish a library database and Input of data

(4) Arrangement of Database Management System

- Study and technology transfer for arrangement of a system to operate, maintain and manage the database

(5) Establishment of Website of Sabo Technical Centre

- Preparation to disseminate disaster-related information accumulated in the STC by the website in collaboration with the information system of the Ministry of Settlement and Regional Infrastructure

2.2.8. Related Activities - Others

(1) Sediment Related Disaster Prevention Campaigns

The first campaign was held at Kebumen in Central Java in November 2002 in order to raise awareness of the local governments and the general public about sediment related disasters and their measures through the mass media and various events. Many slogans and pictures for disaster prevention were sent from participants in the contest.

As a result of the campaign, several disaster prone Kabupaten governments in Central Java participated in disaster management activities.

(2) Support for Establishment of Sabo Units

An official request letter was sent to public works departments of provincial governments from the Director of Technical Guidance of the Directorate General of Water Resources of MSRI in June 2002 to establish a Sabo Unit at each provincial government.

So far, the provincial government of West Java stated that establishing a new unit would not be necessary because of an existing section handling disasters, while West Sumatera provincial government is studying to establish the unit.