2. METHODOLOGY OF THE EVALUATION

2.1 Methodology of the Evaluation

The evaluation study was conducted by the Joint Evaluation Team consisting of Japanese members and Indonesian members. The Japanese members were nominated by JICA and Indonesian members were nominated by General Directorate of Water Resources of the Ministry of Public Works. The evaluation was conducted based on the "JICA Guideline for the Project Evaluation", revised version of March 2004". The evaluation activities include report analysis, field survey, questionnaire survey, interview to the persons concerned, and discussions with official staff concerned to the Project based on the five evaluation criteria listed below:

2.2 Criteria of Evaluation

The Team reviewed all the activities and achievements and evaluated the Project based on the following five criteria:

(1) Relevance

Relevance refers to the validity of the Project Purpose and the Overall Goal in connection with the development policy of Indonesian Government as well as the needs of beneficiaries.

(2) Effectiveness

Effectiveness refers to the extent to which the expected benefits of the Project have been achieved as planned, and examines if the benefit was brought about as a result of the Project (not as that of external factors).

(3) Efficiency

Efficiency refers to the productivity of the implementation process, and examines if the Inputs of the Project was efficiently converted into the Outputs.

(4) Impact

Impact refers to direct and indirect, positive and negative impact caused by implementing the Project, including the extent to which the Overall Goal has been attained.

(5) Sustainability

Sustainability refers to the extent to which the Indonesian side can further develop the Project, and the benefits generated by the Project can be sustained under Indonesia's policies, technologies, systems and financial state of the Indonesian side.

3. Performance of the Project

3.1 Inputs to the Project

3.1.1 Inputs by the Japanese side

(1) Dispatch of experts

1) Long-term experts

Currently six long-term experts are assigned. In total 14 long-term experts have been dispatched.

Field of assignment	Name	Period of assignment
Chief advisor	Mr. Motoo Sakai	May 14, 2001 - June 12, 2003
	Mr. Fumito Watanabe	May 31, 2003 - March 31, 2006
Coordinator	Mr. Kazuhiko Tanaka	April 1, 2001 - May 31, 2004
	Mr. Kazuo Iiyama	May 17, 2004 - March 31, 2006
Sediment-related disaster mitigation measures	Mr. Masanobu Takeuchi	April 1, 2001 - March 25, 2002
	Mr. Hiroyuki Yasui	March 10, 2002 - March 25, 2004
	Mr. Yoshihiro Ueda	March 21, 2004 - March 20, 2006
Regional disaster mitigation	Mr. Masayuki Ito	May 14, 2001 - May 13, 2003
	Mr. Tomoyuki Nanri	May 31, 2003 - May 30, 2005
	Mr. Satoru Kubo	March 27, 2005 - March 31, 2006
Disaster information	Mr. Masahiro Sugiura	May 14, 2001 - March 15, 2004
	Mr. Koji Nakanishi	March 1, 2004 - Feb. 28, 2006
Sabo planning	Mr. Kazunori Fujisawa	May 22, 2001 - June 12, 2003
	Mr. Masato Jogasaki	May 31, 2003 - March 31, 2006

2) Short-term experts

In total, 69 short-term experts have been dispatched to ensure smooth implementation of the Project. It is planned to dispatch 3 more short-term experts by the end of the Project. (Details: see Annex 3)

(2) Training of Counterpart personnel in Japan

In total 23, counterparts were trained in Japan. Two of them were studied in universities in Japan as long-term training and one of them is studying in a university in Japan as long-term training. Three more counterparts are under training in Japan at present. (Details: see Annex 4)

(3) Provision of equipment

The Japanese side has provided disaster information management equipment, vehicles, data processing equipment, audio-visual equipment measuring equipment and information technology related facilities, etc., which total at Japanese Yen 127,035,000. (Details: see Annex 5)

(4) Local operation expenses borne by the Japanese side

Total amount of the operation expenses spent by the Japanese side is 223,633 thousand Japanese Yen. Expenses by year are as follows. (Details: see Annex 6)

(Unit: Thousand Yen)	JFY2001	JFY2002	JFY2003	JFY2004	JFY2005	Total
Local operation expenses	26,935	27,537	34,485	42,659	92,017	223,633

JFY: Japanese Fiscal Year (From April to March of next year)

3.1.2 Inputs by the Indonesian side

(1) Assignment of counterpart personnel

Currently 27 counterparts are assigned besides the OJT trainees at the model areas. Current number of counterparts is more than the planned 21 including a Project Director and a Project Manager for the Project. There are four working teams, such as the Model Area Working Team, the Training Working Team, the Information System Working Team and the Sabo Planning Team. Some of the counterparts are assigned two working team, and the Sabo Planning Team is composed of the coordinators of each working team and Head of the STC. (Details: see Annex 7)

(2) Provision of Land, Buildings and Facilities

The Indonesian side provided necessary facilities, such as office and working spaces, etc. for the Project.

(3) Allocation of Budget by the Indonesian side

Budget allocated by Indonesian side is as follows.

Year	2001	2002	2003	2004	2005	Total
Budget (Unit: Rupia)	530,613,000	969,583,000	1,257,149,000	2,773,679,000	1,899,868,000	7,430,892,000

Budget allocation is increasing year by year. Especially, much more budget was allocated in 2004.

3.2 Outputs of the Project

3.2.1 Achievement of Output 1. "Planning and implementation methodologies of sediment-related disaster mitigation measures are established through the cooperation between engineers on disaster mitigation and local residents. (Establish integrated sediment-related disaster management model)"

Several draft hazard maps for the model areas of Bali, Merapi and Bawakaraeng, and draft hazardous points map for Kebumen, Palu and West Sumatra area will be developed by the end of the Project. Also, two kinds of manual, which are "the manual for investigating dangerous stream of debris flow" and "the manual for investigating slope failure related disaster", will be developed by the end of the Project. A draft of disaster prevention and evacuation criteria for the Merapi model area will be developed by the end of the Project. A comparison of existing sediment-related disaster mitigation works and integrated disaster mitigation model works in view of cost-effectiveness and cost-benefit in the Merapi model area is underway. Applicability investigation of the soil cement method and a construction cost comparison of this method for Sabo dam will be completed by the end of the Project. Meetings with local residents related to model works for disaster prevention have been held 26 times in total in model areas (Bali, Merapi, Palu, West Sumatra and Bawakaraeng). Sabo communities are organized in Bawakaraeng and in Merapi areas.

There is no sufficient time for verification and improvement of the contents of those hazard maps, hazardous points map. So, the integrated sediment-related disaster management model will not fully be established within the Project period.