

(3) Support for Reinforcing Functions of STC

In order to reinforce the functions of the STC, shifting its status from a temporary project to a permanent organization is being studied in the General Directorate of Water Resources.

(4) Collaboration with Kabupaten Governments

In Kebumen and Banyumas in Central Java, local Kabupaten governments held sediment related disaster seminars with the initiative of the ex-trainees of the WIDE course and with the support from the STC.

Disaster management activities initiated by an NGO as part of the disaster prevention measures of Kabupaten Kebumen were approved to receive the Japan's Grant Assistance for Grassroots Projects, and are operating in close coordination with the STC team

(5) Publication and Public Relations Activities

In order to widely disseminate the concept and activities of the Integrated Sediment Related Disaster Management, a publication working group was formed in the STC and started its activities.

2.3. Project Purpose

The Project purpose is that engineers involved in disaster mitigation and local residents become able to plan and implement disaster mitigation measures to reduce the impacts of sediment-related disasters on volcanic areas.

The Project is now in the process of achieving the purpose mainly through the model projects and training and awareness raising activities mentioned above.

Such achievement is expected to result in the rise of the indicators such as the technical guidelines, the number of trainees and the people's awareness of disaster mitigation in the model areas.

The Japanese experts and the counterpart staff are the cadre of the Project activities, through which the technology transfer is expected. To the questionnaire to the Project counterparts working for the STC and the RCS, 13 counterparts out of 20 target members answered (Annex 8). The technology transfer from the Japanese experts is evaluated as being "fair" by 8 counterparts, "acceptable" by 3 and "little unsatisfactory" by 2.

The Project has prepared a wide variety of products through its activities to achieve the outputs (Annex 9). They are supporting engineers and local community members to be aware of sediment-related disasters and to be capable of managing them.

2.4. Overall and Super Goals

Currently, the Project team is still developing disaster management models in parallel with human resource development, therefore the Project's impacts on nationwide disaster mitigation is not yet observed.

3. Evaluation by Five Criteria

3.1. Relevance

The Five Year National Development Program called "PROPENAS 2001 - 2005" stipulates five urgent challenges. One of them is the acceleration of sustainable economic recovery. Under this title, the program states that management of disaster prone areas is a major issue for the national development. It also states the importance of controlling environmental and natural disaster impact.

According to a series of five year national development programs, the Directorate General of Water Resources has been addressing volcanic disasters and other sediment related disasters, and also

planning and implementing recovery programs of disaster hit areas.

On the other hand, the rapid institutional changes for the devolution require human resource development at local levels who address increasing issues of decentralization. In particular, fostering skilled engineers in disaster management is an urgent requirement of many local areas.

It is therefore important to disseminate the disaster management measures to local regions by training local engineers by fully utilizing the accumulated experiences of the STC.

The Project has selected four poverty-affected model areas so that both the processes and the results of the pilot projects can be applied to the rest of the country. The Project therefore intends to promote the local participation such as local communities, governments, and NGOs. It also intends to work out low cost technologies as well as non-structural measures. Such approach is regarded to be highly relevant to the local needs.

However, participatory and bottom-up approaches were started only in recent years. Therefore, in spite of the relevance, a lot of efforts are required for such approach to be accepted by local societies.

3.2. Effectiveness

The training courses are fostering engineers in disaster management, while the disaster information system is steadily developed.

On the other hand, the project at Mt. Agung Model Area, the first implementation area among the four model areas so far achieved limited success due to lack of communication between relevant government organizations and the local communities.

Local governments frequently damaged by natural disasters are actively seeking for disaster management through disaster education, evacuation drills, etc. at their own budgets. An increasing number of local governments are consulting with the STC and inviting lectures from the center. Moreover a number of local governments send their staff to the courses initiated by the STC, including some Kabupaten governments who have sent their staff at their own expenses.

In addition, some disaster hit local governments request the STC to survey and study the disasters and recovery measures, while some NGOs have inquired the center to support for their activities against disasters.

The Project is gaining close working relationship with local governments as an important step toward its purpose.

3.3. Efficiency

The long-term and short-term experts have been dispatched according to the schedule.

The training in Japan was received by a total of 12 counterparts. They are now lecturing in the OJT course and the WIDE course by utilizing the knowledge and observation in Japan. The training in Japan is therefore efficient with its multiplier effect.

The provided equipment has been properly maintained and utilized, while some observation equipment is standing by to be installed in the model areas. The computer system with the accessories has been installed in the specially arranged computer room, which is equipped with double floors allowing easy wiring, air-conditioned and fully secured against possible loss.

The Directorate General of Water Resources is supporting the Project activities by promoting the establishment of the Sabo units, campaigning for sediment related disaster prevention, and so forth.

On the other hand, in the disaster site surveys, coordination among different offices in the Directorate General is yet to be strengthened. For example, temporary institutional arrangement such as organizing a special taskforce may secure the coordination.

The Project is also supported by some NGOs through their participation in the Project activities in

the model areas. Some tasks closely related to the Project are being implemented by their initiatives. So far four projects have been approved to receive the Japan's Grant Assistance for Grassroots Projects.

3.4. Impact

It is premature to identify the overall Project impact. However, through the sediment related disaster prevention campaigns and the awareness raising activities to communities in some areas including the model areas, the need for protection of communities from natural disasters is being widely recognized. The new understanding that natural disasters can be mitigated by proper measures is steadily replacing the traditional belief that natural disasters are totally out of people's control.

Although such a trend may be of limited magnitude, it is the impact partly made by the Project. Vice versa, the popularization of the understanding will support the Project activities and other disaster management programs through increased social acceptability.

An increasing number of disaster-hit or disaster-prone local governments are requesting the STC to conduct disaster site surveys and disaster management lectures.

As part of the sediment related disaster management campaign at Kebumen in Central Java Province in November 2002, a campaign slogan contest was held and over 3,000 people sent their works from all over the nation. Then some local governments showed their interest to host the next year's campaign events.

One example of the specific impact of the Project is a case of West Sumatera Province. The provincial government constructed an open-type Sabo dam with slits to allow ordinary debris flow at its own budget, according to the activities and advice of the Project team. The government of West Sumatera is also positive to establish its Sabo unit.

3.5. Sustainability

(1) Institutional Aspect

The STC's total workforce is 38 members, comprising four managers, 14 in the technical divisions, 18 in the administrative divisions and two for treasury. All the managers are also technical staff and counterparts of the Japanese experts in addition to six members of the technical divisions. The STC is not an autonomous organization and has been operated by the management staff sufficiently well under the Secretary of Directorate General of Water Resources within the organizational framework of the MSRI. However, the limited number of the fully assigned staff is sometimes a constraint on the activities and so the reinforcement is required.

In recent years, sediment related disasters are often featured by the mass media and drawing general attention. The Minister of Settlement and Regional Infrastructure expects contribution from the STC.

Currently, the status of the STC as a temporary project is reviewed in the Directorate General of Water Resources of the MSRI. Discussions need to be continued on the functions and status of the center, considering that the permanent organization would have more secured staffing and operation.

In order for the STC to be sustainable, it needs to keep practically contributing to disaster management. Then the extent of the contribution largely depends on the participation of local governments and communities as well as relevant NGOs. It is therefore important to maintain and strengthen close working relationship with such local stakeholders and accumulate lessons through various activities of the STC.

The government of Japan has been cooperating in the Sabo field with Indonesia for over 30 years. The joint efforts during the period have established a firm base of disaster management activities. On the other hand, it should be emphasized that the Project members need a lot of efforts in the direction to the sustainable development, although most counterparts are optimistic expecting no major problems