Summary

"Indonesia-Japan Workshop on Multi-disciplinary Hazard Reduction from Earthquakes and Volcanoes in Indonesia"

Jakarta, 27 – 29 October 2011

Introduction

The JST-JICA SATREPS[1] "Multi-disciplinary Hazard Reduction from Earthquakes and Volcanoes in Indonesia" (hereinafter "the Project") organized, as part of its activities, the Indonesia-Japan Workshop on Multi-disciplinary Hazard Reduction from Earthquakes and Volcanoes in Indonesia, at JIEXPO (Jakarta International Exposition) KEMAYORAN, Jakarta from 27 October to 29 October. The members of the Project, officials of government of Indonesia and Japan, representatives of JST and JICA, other experts participated in the Workshop.

This Workshop was held to coincide with the Indonesia Disaster Preparedness, Response, Recovery Exhibition & Conference (IDEC) 2011. On the first day, 27 October, the project members participated in the Disaster Management and Climate Change Conference, a main event of the IDEC 2011, organized by the Coordinating Ministry for People's Welfare, Republic of Indonesia. Project members were invited to speak at the Conference thereby presenting the activities of the Project and underlying their relevant to disaster management in Indonesia. Also, they made presentations on the Great East Japan Earthquake and Tsunami which occurred on 11 March in Japan as well as the Merapi volcano eruption in October 2010. In particular, the participants in the Conference showed great interest in sharing information on the Great East Japan Earthquake and Tsunami since Indonesia is a country prone to recurrent earthquake and tsunami disasters including the Indian Ocean Tsunami in December 2004 and the Mentawai Tsunami in October 2010. This collaboration with the Coordinating Ministry for People's Welfare clearly indicated strong interest of the government of Indonesia in the activities of the Project.

Reports by individual groups and sub-groups

1 SATREPS (Science and Technology Research Partnership for Sustainable Development) is a Japanese government program that promotes international joint research targeting global issues, supported by the Japan Science and Technology Agency (JST) and the Japan International Cooperation Agency (JICA)

On 28 and 29 October, the member of the Project were engaged in intensive discussion to share information on progresses and achievements made to-date by each group and sub-group as well as to exchange views and ideas on how to proceed on with the preparation of final products of the Project as a whole in the remaining period. The following summarizes main results of discussion.

Group 1:

From Group 1, six oral and on poster presentations were made covering paleoseismology on inland active faults and coasts, GPS and other geodetic measurements, strong motion and tsunami prediction, and offshore marine surveys.

It has been stressed that multiple sub-group researches should be integrated: for example, active fault surveys (1-1), geodetic surveys (1-3) and strong motion prediction (1-4) for the Lembang fault can be integrated to produce a consistent results on precise prediction of strong motion in Bandung Basin due to an earthquake along the Lembang fault.

Group 2:

The goal of Group 2 is a proposal of methods for forecasting and evaluation of volcanic activity. We propose methods of ground deformation for short-term and long-term forecasting, combination of seismicity and eruption rate of magma, and geological survey and dating for long-term or super-long-term evaluation for caldera eruption. The scientific evidences of the proposal were shown by 8 oral presentation and 2 posters in the workshop.

Group 3:

After introducing the purpose and goals of Group 3 and progress for two years, including the workshop at Padang dated on 26 October 2011, the members from each sub-group made the presentations to explain the tentative result and final goals to compile the all data and result on the hazard map at the specific area, which should be provided to the central and local governments and people.

Padang and Bantul are selected to be the area for multiple hazards map including the ground motion, liquefaction, tsunami, and information on the evacuation. The guideline to utilize the green belt for reducing the tsunami impact is designed to be published in G3-2.

Group 4:

The session of Group 4 had six papers about a wider range of topics in the social and cultural aspects, including community activities, local knowledge, informal information channel. They noted fruitful local initiatives,

and stressed their future potentials, taken by various bodies as universities, media, and locality-rooted organizations.

For the community-based disaster management, on which the research purpose of this group focuses, the governmental mechanisms are fundamental, while the institutional framework to involve such non-governmental practices is critical, as well.

Group 5:

Group 5 delivered 9 presentations consist of each sub groups. During the presentations, it was found that for disaster education, it is important to institutionalize school preparedness for sustainability using available methods and experiential learning. These are to allow better understanding on local risk, and town watching/school watching method offers such simple tool. Moreover, there also gaps making disaster education materials available. To overcome difficulties in accessing different education materials, database materials through internet access is one of the solution, can be used in both Japan and Indonesia, and proposed by group 5.1.2. , and the Lack of awareness were contributed also due to language barriers and differences of terminologies. Therefore, group 5.1.2 develops studies on different terminology understanding at local level.

For project sustainability issue, it was raised by group 5.1.3 on the need for capacity and technology transfer to Indonesian researchers related to evacuation and tsunami inundation simulation development. Indonesian researchers and research institutions should combine resources and knowledge. Support for young researchers is important with enough time and funding allocation. Users of research results for public education needs social senses and users perspectives should also be taken into account.

About lessons from Japan tsunami it was found out that quick evacuation during Japan tsunami 2011 is related to participation to regular drills. Yet, many past events and education still failed in ensuring proper response to save lives (lessons from Yamada machi and Mentawai). Many cases of awareness and lack of preparedness in Japan also relevant to Indonesia and vice versa (over-expectation of the mitigation system). Decision making by people's own judgment is highly important, whether the community is in urban or remote area. This is highly important to be considered for further education intervention in both countries. For Indonesian interest, there are many gaps and weak areas need for further education improvement, such as slow earthquake which is also scarcely introduced to community. In other case in Indonesia, Richter scale is more familiar than earthquake intensity (MMI, Shindo). This can lead to misleading perception/interpretation about the risk. It is understood that wrong education message can create wrong perception and add to possible casualties.

For future follow up, Group 5 sees that it is strategic to utilize of global education platform for sharing knowledge and lectures/courses with global community. Follow up with global courses on disaster management (utilizing research results and findings) using SOI Asia facility is one possible channel. Stronger collaboration with other groups is still considered important. From Indonesian side, disaster education particularly at schools in Indonesia will be continued to be supported by TDMRC and LIPI. Indonesia also need to support stronger collaboration among young researchers with adequate resources and time to work together and build better models, tools,

methodologies upon existing JICA JST work experiences.

From Science to Society

In addition to discussion on each group's activities as described above, a panel discussion "From Science to Society" was organized as part of activities of Group 6 to specifically address issues on how the research results should be further integrated with policy making at various levels to reduce future disaster risks in Indonesia. The representatives of the Ministry of Communication and Information Technology (KOMINFO) and the Ministry of Public Works (PU) were invited to present their activities on how research activities are integrated in policies and delivered to the public at respective ministries.

Through a series of presentations and intensive discussion, the Project members agreed that the Project, covering earthquake, tsunami and volcanic hazards from different perspectives, natural, engineering and social sciences as well as disaster education and coordination with government, was proven to be extremely important and effective in Indonesia and in the context of Indonesia-Japan collaboration as well.

It has been well recognized that each group and sub-group has making steady progresses toward their set goals and will likely produce tangible results in the end. Several suggestions however were made on the following points:

- Various studies, undertaken individually by each group and sub-group, is necessary to be integrated or linked not only within each group but also across different groups;

- Likewise, the integration or linkage of research results with policy-making needs to be further enhanced to facilitate the better use of research results for policies aimed to reduce future disaster risks in Indonesia;

- Outreach activities conducted by Group 6 so far through such means as workshops, newsletters, press conferences, TV talk show program "IPTEK Talk", radio program, and the participation in IDEC 2011, should be continued to make those research results widely known and available to a variety of potential users including policy makers, academicians and the public.

Recommendation

The members of the Project, in view of the fact that the project will come to an end in March 2012, stressed a need that collaboration between Indonesia

and Japan on research activities for natural disaster reduction should be further strengthened while efforts should be continued so as to facilitate further integration and outreach activities.

They suggested that the Joint Coordination Committee (JCC), established to monitor the progress of the projects and composed of numerous disaster-related institutions in Indonesia, namely, RISTEK, LIPI, DIKNAS, ESDM, DKP, KOMINFO, PU, DEPDAGRI, BPPT, BNPB can be promoted to Indonesian key stakeholder like BNPB, as a platform to pursue such objectives, specifically to continue the collaboration between Indonesia and Japan for research activities and policy development for natural disaster reduction. The participants therefore have agreed and requested that the function of the JCC should be continued in any format to act as a window for international collaboration in future along this line.

Moreover, they underscored that BNPB, responsible for disaster management, needs to take the lead and thus should be further involved in such activities. Hence, a special request for this end will be made to BNPB so as to discuss how international collaboration between Indonesia and Japan in this field should be further enhanced.

Finally, the Workshop was successfully closed by thanking all the participants from both Indonesia and Japan for their efforts and dedication in the last three days.