# Chapter 2 **Disaster Risk Reduction Cooperation in Practice**



Japanese drain pump vehicles that played a major role after the Thai floods. (Photo: JICA)

### Section 1

#### **Cooperation with ASEAN**

A crucial pillar of Japan's international cooperation can be said to be in building resilient societies able to cope adequately with natural disasters, which nullify development efforts in an instant, and also to that end, in promoting mainstreaming disaster risk reduction among the policies of each nation. Therein it is particularly important to mainstream disaster risk reduction activities in Asia as the region is said to account for over 90% of the fatalities and victims occurring due to natural disasters worldwide.

Japan ranks cooperation within the domain of disaster risk reduction as one of the most critical issues within ASEAN-Japan cooperation, and has provided various assistance to date. In particular, based on the prompt and plentiful assistance Japan received from ASEAN member states in the aftermath of the Great East Japan Earthquake in March 2011, Japan intends to step up its future cooperation with ASEAN member states in the area of disaster risk reduction.

In the ASEAN Post Ministerial Conference +1 session with Japan in July 2011, Japan proposed the "Disaster Management Network for the ASEAN Region." This initiative aims to fully utilize the disaster risk reduction knowledge acquired through the Great East Japan Earthquake, the Great Hanshin Earthquake and the Sumatra Earthquake, etc. as well as Japan's advanced



AHA Centre (Photo: AHA Centre)

approaches in the area of disaster risk reduction and the environment in the ASEAN region. In light of the widespread damage from the earthquake and tsunami that

became clear after the Sumatra Earthquake, and the widening damage range of typhoons that are increasing in severity and occurrence due to climate change, the aim is to construct a disaster risk reduction network that perceives the ASEAN region as a whole. More specifically, in addition to assisting with the strengthening of the AHA Centre's capabilities, (the ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management), Japan is also conducting bilateral aid with each ASEAN member state. Likewise, through sharing knowledge, experience and information for disaster countermeasures, Japan is also implementing approaches to strengthen the

network "from outer space to rural communities."

The AHA Centre was established in Jakarta, Indonesia with the conclusion of its establishment agreement in the 19th ASEAN Summit in November 2011. It is envisaged that the AHA Centre functions as a hub of disaster management for the ASEAN region, and that in peacetime, it assesses the risks in times of disasters within the ASEAN region, continually monitors the situation within the ASEAN region, and in the event of a disaster, will share information on the disaster with ASEAN member states and play a key role in coordinating emergency responses.

As for Japan, through utilization of the Japan-ASEAN Integration Fund (JAIF), as the project to "Establishment of an Integrated Information and Communication Technology System to Strengthen the Operation of AHA Centre," Japan introduced communications equipment to the AHA Centre to upgrade the risk identification and monitoring functions that the center oversees, and has dispatched one ICT expert since November 2011. Likewise, as the "Establishment of a Disaster Emergency Logistic System for ASEAN" project, Japan is also assisting with the construction of a system to provide stockpiled emergency supplies and to manage and transport these supplies, in

order to respond to disasters promptly and effectively. Japan is also assisting with the management side of the AHA Centre so that the Centre can function adequately as a regional hub of disaster management. Furthermore, in August 2012, disaster risk reduction related personnel from the AHA Centre and each ASEAN member state were invited to Japan and workshops were held to share knowledge on disaster risk reduction.

As bilateral aid with ASEAN member states, as well as technical cooperation such as dispatching experts and training, Japan is providing various assistance in disaster risk reduction measures such as the ODA loan "Project for Disaster and Climate Change Countermeasures Using Earth Observation Satellites (Phase 1)" to Viet Nam. Similarly, as a wide-ranging move that encompasses multiple countries, the AHA Centre and ASEAN member states will in future use satellite information, improve the capabilities of industrial complexes in the region to cope with disasters, and will provide assistance to share the results with the entire region.



Member of the AHA Centre staff monitoring disaster information. Through the Japan-ASEAN Integration Fund (JAIF) Japan provided ICT equipment at the AHA Centre. (Photo: AHA Centre)

## Section 2

#### **Disaster Aid and Disaster Risk Reduction Measures**

- Responding to the flood damage in Thailand

In the Mekong Region, rainfall was higher than average in 2011, and from late July, flooding caused widespread damage across primarily Thailand, Viet Nam and Cambodia. In response, Japan provided emergency assistance to these countries. Here the case in Thailand that was widely covered particularly in the Japanese media will be introduced.

In Thailand from late July 2011, flooding occurred primarily in the northern and central regions, and from early October became widespread along the Chao Phraya River as far as the outskirts of Bangkok. Ultimately, although central Bangkok escaped the flooding, approximately 800 lives were lost, and the total cost of damages rose to around 1.44 trillion Thai Baht (around ¥3.6 trillion) according to World Bank estimates.

The outskirts of Bangkok are accommodating many Japanese corporations. Many industrial parks are situated mainly in Ayutthaya Province, seven of which were flooded, which meant that operations had to be suspended in many plants including around 450 Japanese companies. The floods not only caused major economic damage in Thailand, but disruptions to the supply-chain (supply networks such as those for parts and components) also greatly shocked the world economy including Japan.

Thailand is a nation friendly to Japan that provided prompt and plentiful assistance after the Great East Japan Earthquake. Likewise, to Japanese corporations, Thailand also plays a crucial role as a production base and as the core of the supply chain. Based on this relationship with Thailand, Japan provided a range of assistance in coping with the flood damage. More specifically, at a critical stage, Japan twice provided emergency relief goods such

as tents, water purifiers, and temporary toilets to a total equivalent of ¥55 million. In addition, Japan provided emergency grant aid to a limit of ¥1 billion to purchase large water pumps and other goods. Similarly, as Japan Disaster Relief (JDR) Teams, expert teams of drain pump vehicles were dispatched to drain flooded areas that had become an issue on the edge of Bangkok, along with expert teams to provide guidance on the waterproofing of critical facilities such as subways, water supplies and airports. In particular, a great deal of attention focused within Thailand on activities to efficiently drain industrial parks, educational institutions and residential areas (See page 43 for details).

Furthermore, in terms of reconstruction after the flooding and preventing recurring flood damage, the "Project on a Comprehensive Flood Management Plan for the Chao Phraya River Basin" has been implemented, assisting in formulating a master plan for mid- to long-term flood countermeasures. Part of the project outcome is reflected in the master plan for Chao Phraya flood countermeasures announced by the Thai Government in January 2012.

In addition, in terms of restoring and upgrading the infrastructure, grant aid on a scale of ¥8 billion will be implemented in order to install floodgates on the outskirts of industrial parks that suffered flood damage, and to raise roads that are crucial to industry.

For Japan's continued assistance, the Prime Minister of Thailand, Yingluck Shinawatra, expressed her sincerest gratitude to former Prime Minister Noda at the Japan-Thailand Summit held in Tokyo in March 2012.





Rojana Industrial Park in Ayutthaya Province before (left) and after (right) the completion of drainage. (Photo: JICA)

### Section 3

## **Cooperation with International Organizations for Disaster Risk Reduction and Post-Disaster Reconstruction**

At the 44th UN General Assembly, Japan jointly proposed and adopted with 155 other nations a resolution designating 1990 to 1999 as the "International Decade for Natural Disaster Reduction." This resolution aims to mitigate the loss of life, property damages, and social and economic disruption caused by natural disasters through concerted international action. In 2000 following the end of the "International Decade for Natural Disaster Reduction," a subsequent "International Strategy for Disaster Reduction" was launched, based on which the UNISDR was established as an organization to promote international disaster risk reduction activities. As a country that has long asserted the importance of disaster risk reduction, Japan has assisted with funding the establishment of the UNISDR from the initial stages, and also cooperated with the release of the Global Assessment Report on Disaster Risk Reduction and activities therein. Likewise, Japan twice hosted the World Conference on Disaster Reduction for which the UNISDR serves as its secretariat, and in collaboration with the UNISDR has been central to the progress of disaster risk reduction efforts within the international community such as participating actively in drafting the international disaster risk reduction strategies of the Yokohama Strategy (1994) and its successor the HFA (2005).

Similarly, at the 2006 UN General Assembly, governments, international organizations and NGOs participated, and the "Global Platform for Disaster Risk Reduction" was established as a venue to discuss the implementation of international disaster risk reduction strategies. Japan also attends this conference positively, and has participated in the discussions. At the third assembly in May 2011, Japan presented the experiences from the Great East Japan Earthquake and the efforts for reconstruction, and pointed out that ongoing consideration is required for: the best way to divide national and local governments' roles, the combination of countermeasures for reconstruction on both the "hard" and "soft" aspects (the "hard" aspects include the construction of facilities such as dams that are useful in disaster risk reduction, and the "soft" aspects include training, education and the creation of manuals for disaster risk reduction), and for methods of passing on the lessons learned from disasters to next generations. Japan plans to use the "Global Platform for Disaster Risk Reduction" as a venue to confirm the current status of disaster risk reduction efforts in each nation, and to share valuable experiences and achievements, and furthermore, will promote the discussion of disaster risk reduction within the international community.

Likewise, Japan is strengthening disaster risk reduction efforts while also cooperating with various other international organizations. One example is the collaboration with the United Nations Development Programme (UNDP) which is taking a leading role in efforts to mainstream disaster risk reduction in developing countries. As a result of the collaboration with the UNDP, Indonesia has built a system where the government, civic societies and private corporations coordinate disaster risk reduction activities, and the first comprehensive guidelines in Southeast Asia have been formulated to assess the damages, losses and reconstruction needs due to disasters. Likewise, for many years Japan and the UNDP have shared their mutual expertise while also positively tackling recovery and reconstruction after natural disasters around the world. For example, Japan cooperated with the UNDP to assist with rebuilding the lives of victims of the Indian Ocean Tsunami, with emergency assistance to the victims of the Haiti earthquake, and with early recovery and reconstruction in areas damaged by the flooding in Pakistan.

Such collaboration with international organizations is also crucial in terms of Japan's reconstruction following the Great East Japan Earthquake and sharing those experiences with the international community. One example was the holding of workshops with experts organized by the United Nations Centre for Regional Development (UNCRD) and the United Nations Human Settlements Programme (UN-HABITAT) in the disaster affected areas (Iwate, Miyagi and Fukushima) from February to March 2012. The UNCRD visited local governments and communities in six areas within three prefectures, and arranged visits with overseas and domestic experts in addition to holding workshops. In the workshops, meetings were held between local representatives and experts, information was exchanged, and practical ideas were proposed for economic activities in the local community particularly to assist locally-based

industries. Opinions were also shared on the way in which NGOs and NPOs interact during reconstruction. A total of approximately 400 representatives from the local community participated in the workshops, which were disseminated to the world by the participating experts and on the UNCRD homepage.

UN-HABITAT visited 11 cities and towns in three prefectures, and held workshops on the theme of "Emergency Workshop for the Great East Japan Earthquake." In these workshops, attendance was seen from many overseas and domestic experts who have worked on reconstruction projects after natural disasters, and many of the Tohoku local government staff

participated. During the workshops, each local government in Tohoku reported on activities they implemented from immediately after the disaster, and exchanged wideranging opinions on issues in the achievement of future visions and policies focused on reconstruction objectives and regional development. The details were disseminated internationally. Likewise, in workshops for local corporations, UN-HABITAT reported on its experiences in reconstruction projects such as the construction of temporary housing, which it has engaged in across the world to date.



Participants in the "World Ministerial Conference on Disaster Reduction in Tohoku" visiting the Ishinomaki Port.

## Section 4

## **Disaster Risk Reduction Cooperation for Island Countries**

Most of the Pacific island countries are comprised of volcanic islands or atoll islands. These countries are also particularly susceptible to the effects of environmental problems of a global scale such as rising sea levels, cyclones, tidal waves, and water shortages. The Pacific region is also a region in which earthquakes and tsunamis frequently occur and in recent years has experienced major damage caused by the Solomon Islands Earthquake in 2007 and the Pacific Ocean Tsunami in 2009. Responding to these kinds of natural disasters is a crucial challenge to the region as a whole

Japan has to date committed a variety of cooperation to the Pacific island countries in the area of disaster risk reduction. For example, on the Solomon Islands at present, Japan is cooperating to improve the shortwave radio network that broadcasts throughout the country as a means of communicating emergency information to the public in the event of a disaster.

Similarly, in terms of disaster risk reduction, since responses at the community level as well as the administration level are crucial, Japan is implementing a technical cooperation project in Fiji and on the Solomon Islands to strengthen community's disaster management capabilities. This project aims to develop readiness for the appropriate evacuation of people in case of disasters through, for example, establishing early warning systems, improving the capability of the National Disaster Management Office, formulating disaster risk reduction plans and disaster response manuals for these communities, and educational activities and carrying out evacuation training.

In Tuvalu, which is concerned about the effects of coastal erosion due to rising sea levels, Japan is conducting a project to investigate coastal protection. This includes experimentally installing gravel beach nourishment (a coastal protection method using shingle to bed the coast), and, while surveying the effectiveness and environmental effects of the gravel beach nourishment, carring out activities to raise local awareness of coastal disasters. At the same time, a survey is also being conducted of the formation and maintenance of the islands due to so called "star sand" created by coral and foraminifera, and it is expected that these surveys will contribute to the formulation of concrete provisions against coastal erosion in Tuvalu.

In addition to these projects, Japan is also contributing to

improve the skills of people in the Pacific island countries through conducting training and dispatching volunteers in areas such as climate change countermeasures, strengthening meteorological observation/forecasting and warning capabilities, and disaster management.

Japan strongly recognized the importance of disaster risk reduction through the Great East Japan Earthquake of 2011. Based on this, Japan announced in the Sixth Pacific Island Leader's Meeting (PALM6) held in Okinawa in May 2012 that it would make "disaster risk reduction cooperation based on the experience of the Great East Japan Earthquake" one of the pillars of assistance over the next three years. In particular, in view of sharing lessons, knowledge and experiences learned from the earthquake with the Pacific island countries, Japan announced that it would keep contributing to upgrading the Pacific Tsunami Warning and Mitigation System in cooperation with the United States and other development partners. In Oceania, a system to communicate information on disasters to the Pacific nations including information from the Pacific Tsunami Warning Center (PTWC) in Hawaii is being introduced. In some instances, however, disaster information does not reach people in the outlying regions and on remote islands since many countries have their territories scattered across wide-stretches of ocean and communications systems are insufficient. Japan is scheduled to conduct assistance to improve this kind of situation.

Japan, as an island country and highly susceptible to the effects of natural disasters, will continue in future to assist the Pacific island countries in the area of disaster risk reduction.



President Remengesau of Palau meets with the Parliamentary Senior Vice-Minister for Foreign Affairs, Shunichi Suzuki. President Remengesau committed to cooperate with the PALM process.