

Keeping Business Moving in the ASEAN Region

Southeast Asia has become a key growth center of the global economy today. But its position as a vital hub makes it vitally important to protect the region from the impact of major natural disasters. A typhoon, flood, earthquake, tsunami, or other large-scale disaster that strikes the region could cause the shutdown of critical infrastructure, such as electricity, water supply, roads, and ports, impacting economic activities far beyond the ASEAN region.

FINDING WAYS TO SHARE JAPAN'S EXPERIENCES

The 2011 flooding along the Chao Phraya River in Thailand wreaked direct damage on a number of major industrial estates representing considerable foreign investment as well as domestic production capacity. As a consequence, the country's economic growth rate that year slowed to just 0.1%. Of the roughly 3,100 Japanese-affiliated companies with presences in Thailand, 460 suffered significant damage.

After the Great East Japan Earthquake, the standstill in production and distribution by companies in Japan's Tohoku region seriously affected the global supply chain. JICA responded to this with a new undertaking targeting the 10 ASEAN member states in the hopes of drawing on Japan's experiences with natural disasters including earthquakes to the benefit of developing countries. Along the lines of the business continuity plans (BCPs) created by individual firms to keep themselves in action following a disruptive event, this activity aims to share knowledge and develop an area BCP to minimize damage to an industrial agglomerated area in the event of a natural disaster, allowing the swift resumption of operations.

STUDIES AND WORKSHOPS LAY THE FOUNDATION

The ASEAN Coordination Centre for Humanitarian Assistance on Disaster Management (AHA Centre) and JICA launched a study in February 2013 to assess the natural disaster risks of the 10 ASEAN member states and to form area BCPs for pilot industrial agglomerated areas in Indonesia, the Philippines, and Viet Nam. These survey and study activities will result in a guidebook describing the concept and methodology of forming an area BCP, which can be shared throughout the ASEAN region.

The first workshops took place in the three pilot countries in December 2013, starting with the Philippines, with the participation of members of national and local government agencies overseeing the industrial agglomerated areas, infrastructure



The 2011 floods impacted industrial facilities across Thailand.

and utility service providers, industrial parks, and private companies. The discussions at these workshops will form the area BCP that is one of the planned outcomes.

THE MUTUAL BENEFITS OF PROTECTING SOUTHEAST ASIA

The area BCP that JICA is currently working on differs in key ways from typical BCPs prepared by individual companies and disaster prevention plans drawn up by national and local governments. Given its history, Japan has a keen awareness of disaster prevention, and even when formulating individual BCPs, Japanese actors tend to take wider geographical areas and wider sectors into view. Conditions may be somewhat different in developing countries, but the JICA approach is to adopt this wide perspective from the beginning when the time comes to craft BCPs, rather than to build them up individually from the local level.

Area BCPs are a new initiative and have no established structure as of yet. Hiromi Kaji of OYO International Corp., which is implementing the studies in ASEAN countries, explains: "As the idea itself is new, it can be a challenging task to gain the understanding of people in the public and private sectors and get them to voluntarily sign up for workshops."

But the works remains no less important, both for the region's nations and for Japan, whose industries and businesses increasingly make them an integral part of the value chain. The words of Masakazu Takahashi, adviser at OYO International and leader of the JICA research team, ring true: "By protecting the ASEAN region from disasters through the use of the area BCP, we can contribute to the development of ASEAN and benefit Japan as well."



Participants in the December 3 workshop in Manila tackle the task of creating an area BCP.

Developing Food for the Future

Development assistance was once mainly monetary and material—financial resources to get a developing economy up and running, or the physical infrastructure nations needed to modernize society. Today, though, the focus is increasingly on the equally vital resource of knowledge. Through the Science and Technology Research Partnership for Sustainable Development (SATREPS), JICA supports collaborative research involving institutes in Japan and developing countries. The aim of SATREPS is to leverage Japan's science and technology prowess to tackle global issues and give back the tangible fruits of research to societies around the world.

CONTRIBUTIONS TO FOOD SECURITY

One promising SATREPS collaboration is the Project for the Development of Wheat Breeding Materials for Sustainable Food Production in Afghanistan. Launched in fiscal 2010, this project brings researchers from Yokohama City University, RIKEN, and Tottori University in Japan together with counterparts from the Ministry of Agriculture, Irrigation, and Livestock. The goal is to refine the germplasm of wheat to enhance its genetic tolerance for drought, unfavorable soil, and disease for production in Afghanistan. By crossbreeding local wheat with high-quality external strains, the project is working to develop new varieties that can be grown at low cost, even in harsh conditions. It also trains young researchers, a vital step to ensure sustainable production into the future.

The principal investigator in Japan is Professor Tomohiro Ban of Yokohama City University's Kihara Institute for Biological Research. In his work he coordinates closely with the research institute RIKEN, which possesses top-flight gene-analysis technology, and Tottori University, with its solid track record in research on arid climates.

Afghanistan was once a lush agricultural country boasting 100% self-sufficiency in wheat. Decades of conflict have devastated the land and the agricultural industry, though. Valuable genetic resources have not been preserved, and systems for breed improvement have fallen apart. Varieties brought in from abroad have not helped increase the low yields in regions lacking proper irrigation. By developing new or improved breeds utilizing natural biodiversity, the project aims to rebuild the foundation for grain production in these harsh conditions. The achievement of wheat that can grow in such an environment will help avert food crisis in the short term and contribute to the nation's long-range food security.



A HOMECOMING FOR TRADITIONAL GRAINS

Key to realizing the project were the genetic resources of local Afghan breeds that had been preserved at the Kihara Institute. In 1955, Kyoto University sent research expedition teams to the Karakoram and Hindu Kush regions of Afghanistan. These researchers collected some 500 local wheat varieties and their ancestral breeds, which they took back to Japan for preservation and study. They represent a rare set of genetic resources.

"These are plants that once grew in Afghanistan," says Professor Ban. "They have the strength to survive there. With breeds of Afghan origin, we have a good chance of developing new varieties that are suited to the local climate."

In the SATREPS project's first year, the preserved breeds were taken back to Afghanistan for cultivation. The team confirmed that these grains are still able to thrive in the Afghan soil and climate.

While increasing breeding fields in the country, the project is currently working to develop breeds that are resistant to drought and disease. Here the Japanese participants are putting advanced science and technology to work in analyzing the genomic information of the resources and crossbreeding traditional local varieties with modern ones from around the world.

SATREPS does not stop with technical work, though. The Kihara Institute accepts exchange students from Afghanistan as part of a long-term approach to improving the nation's self-sufficiency. "Developing human resources leads to country building," Professor Ban says. "I hope the students will not only learn the technologies but also study our ways of thinking."

Professor Ban (center) working with researchers at a test farm in Herat, western Afghanistan.



Professor Ban hopes Japan's assistance will bring stability and productivity back to the Afghan farming sector.

PHOTO: YUICHI ITOHASHI