
International Research Activities

1. Mission of international research activities

1.1. Three missions

The NILIM is the country's only research body in the housing and public capital fields. As an organization of the Ministry of Land, Infrastructure, Transport and Tourism, its mission is to provide technical support necessary to more accurately and rapidly plan, propose, and implement policies of the Ministry of Land, Infrastructure, Transport and Tourism. Based on this, the NILIM resolutely works to fulfill the following missions related to international research activities.

[1] Improving the quality of policies

[2] International harmonization of technical standards etc.

[3] Extending technical assistance

Concrete examples of its initiatives are described below.

[1] Improving the quality of policies: Field survey of Hurricane Sandy in the U.S.

In February 2013, with the NILIM Director General as its leader, a survey team including the members of the JSCE was formed. The team surveyed damage caused by Hurricane Sandy in the U.S., the response to it, and reported its findings to the Minister of Land, Infrastructure, Transport and Tourism. It has presented the results of the survey at several meetings held in Japan.

[2] International harmonization of technical standards etc.: Participation in international conferences concerning international standards

At the same time as the NILIM works to inform the world of Japan's approach to technical standards etc. it strives to harmonize Japan's technical standards with international standards. By participating in many international conferences such as ISO meetings, we have made proposals from Japan's standpoint, collected information about international trends, and adjusted these with concerned parties inside Japan.

[3] Extending technical assistance: Dispatching experts and study and training by the JICA, bilateral research links

Wide experience and know-how in technical guidance the NILIM has accumulated through domestic dispatch of experts and on-the-job training is also applied outside of Japan. It provides technical assistance through the dispatch of experts and on-the-job training by the JICA in response to requests from overseas.

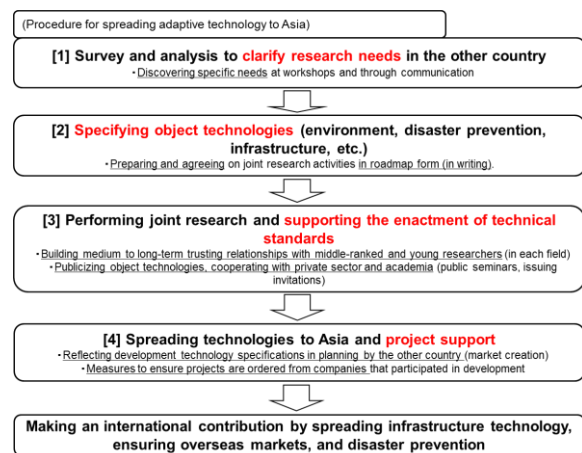
And with priority on the countries of Asia, we conduct bilateral research connections emphasizing the medium to long term. At this time, we have signed research connection memoranda concerning infrastructure provision with India, Indonesia, and

Vietnam, to provide these countries with technical assistance. We are now making preparations focused on the possibility of research connections with Myanmar.

1.2 Exporting technology in conjunction with research connections

Of the three initiatives of the NILIM discussed above, it appears that fewer efforts to promote [3] Extending technical assistance were made compared with the other two until we formed priority bilateral research links. Therefore, to extend technical assistance effectively and efficiently, joint research from the medium and long term perspectives will be conducted in the 4 Asian countries mentioned above in line with the procedure shown in the figure.

Figure. Procedure for spreading adaptive technologies in Asia



Bilateral medium to long term research connections and technical assistance are accompanied by a steadily growing need to provide the outside world with technical theories related to the provision of infrastructure in Japan and written technical standards based on these technical theories. Technology assistance, or in other words exporting technologies, equals exporting concepts and theories of these technologies. Providing technical standards that have systemized technical theories can be called part of technology assistance. The increasing need to provide these to foreign countries is a result of impetus from both inside and outside of Japan: requests for Japanese technology from overseas along with pressure inside Japan to export infrastructure overseas.

Providing technical theories or technology standards to foreign countries naturally makes an international contribution by spreading infrastructure technologies and preventing disasters, and it also introduces foreign countries to technical theories and technology standards familiar to Japanese companies,

establishing the infrastructure simplifying Japanese companies advance into these countries, or in other words, ensuring overseas markets.

Below specific examples in the road field are cited following the procedure in the figure.

2. Survey analysis (preparation) to clarify research needs of other countries

We are now making preparations to support technical standards and form research connections with Myanmar.

In 2013, the Minister of Land, Infrastructure, Transport and Tourism and the Minister of Construction of the Republic of the Union of Myanmar signed a memorandum of cooperation in the road field. In response, the NILIM and Public Works Research Institute studied the support system, and exchanged information with JICA experts.

In the future, we will visit and tour the region to specify the object technologies and study performing a survey to clarify technology assistance and research needs.



Photo 1. View of a road in Myanmar

Because water gathers on roads when rain falls, neighboring farmers who received commissions from the government are digging ditches beside the road to drain the water.

3. Specifying the object technologies

In June 2012, road interim report workshops were held in three countries, Japan, Indonesia, and Vietnam.

And research connections operate in six fields with both Indonesia and Vietnam. And as candidates for JICA project cases in particular, surveys and research have been conducted in the paving field (natural asphalt material (AsButon)) with Indonesia, and in the paving, bridge (restoring the paving on the Thang Long Bridge) and tunnel fields (Hai Van Tunnel maintenance) with Vietnam.

Workshops were held, specifying technology to be the topic of joint research in various research linked fields.

4. Performing joint research and supporting the enactment of technical standards

Based on bilateral research links with Indonesia, a guideline to traffic volume measurement methods in

Indonesia was prepared last year (FY2012). This earned an award at the REAAA in March 2013.

In addition, in cooperation with the PWRI, the NILIM formed research connections to develop practical pavements made of new materials (natural asphalt material (AsButon) in Indonesia), and conducted joint research to propose utilization methods and to enact technology standards.

5. Spreading technologies to Asia and project assistance

We are now responding to a request from the Government of Vietnam by giving consultation services on the repair of the paving on the Thang Long Bridge, which is a key point linking Noi Bai Airport with downtown Hanoi in Vietnam, and under a memorandum signed with the Institute of Transport, Science, and Technology of the Ministry of Transport of Vietnam, we are establishing research connections in cooperation with the PWRI.

In October 2012, we discussed the Thang Long Bridge pavement repair project, visited the site, and provided technical advice.

And we gave overall cooperation and assistance with technological aspects of the project to the local JICA office and embassy.

In the future, we will support this project to establish it as a JICA loan assistance case and at the same time study giving technical assistance to encourage Japanese owned companies to advance into overseas markets, and provide information about road environment technology standards.



Photo 2. Technicians from the NILIM and PWRI etc. Inspecting Pavement at the Thang Long Bridge in Vietnam

In response to a request from the Government of Vietnam, Japanese technicians are examining the pavement and looking for the causes of damage to it in order to repair the paving on the Thang Long Bridge, which is a key point linking Noi Bai Airport with downtown Hanoi in Vietnam

6. Conclusions

Although brief, the above describes our international research activities. We wish to continue to provide research assistance in the future while hearing the views of concerned scholars etc. concerning how we ought to conduct international research activities.