

Empowering technical officials in MLIT Regional Bureaus and local governments in terms of road bridge preservations

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(Key words) road bridges, maintenance, technology transfer, human resource development, technical assistance

1. Introduction

Timely and relevant maintenance actions are necessary for bridges and structures to maintain their required performance levels as essential elements of road networks. Higher level of expertise is sometimes required for technical officials in road administrators to make decisions concerning the imminence of and details of maintenance action than the level required to design new structures from square one. This is because road administrators must manage to decide the actions with limited information on the damage and bridge conditions, while the decision must be based on the engineering assessment of structural conditions and remaining strengths, the progress predictions and causes of observed damage, and other social restrictions.

Accordingly, Bridge and Structures Division has, as one of its missions, been sharing our knowledge and expertise with road administrators and their engineering officials through the acceptance of short-term liaison engineers from MLIT Regional Bureaus, technical assistance for road administrators, and sending our researchers to their human resource training courses and seminars. Some of the highlighted activities are described in this article.

2. Development of the expertise of training liaison engineers from MLIT Regional Bureau

MLIT Regional Bureaus send liaison engineers to our division so that, in the near future, they can begin playing a leading role in the field of maintenance for bridges and

structures in MLIT Regional Bureaus and national highway offices. They are involved in request-basis technical assistance activities for road administrators and the development / improvement of technical manuals, so that they can obtain expertise in bridge maintenance and technical consultation on the job. This activity began in 2014 and 11 liaison engineers spent three months working in Bridge and Structures Division.



Photo Activities of liaison engineers (on-site investigations)

3. Cooperation with MLIT Regional Bureau to issue technical advice reports for bridge maintenance on a request basis from municipal governments

In July 2014, the government ordinance for inspections came into effect, specifying that hands-on inspection shall be conducted for road bridges at a frequency of 60 months. The MLIT provides financial and technical assistance to municipal governments to enable them to follow the government ordinance. One of the technical assistance activities is to evaluate the recommended actions to particular bridges that the municipal

governments which own them are considering based on inspection results that indicate the need for large-scale rehabilitation or maintenance works. In 2014, based upon their requests, the MLIT sent bridge experts from their Regional Bureaus, NILIM, etc to the selected three bridges. Bridge and Structures Division provided technical expertise for the MLIT Regional Bureaus to conduct on-site investigations and draft the technical advice reports on the recommended maintenance and rehabilitation actions for those bridges.



Photo Technical assistance to municipal governments for them to follow the government ordinance (on-site investigations)

4. Remarks

These activities help develop human resources for technical officials in MLIT Regional Bureaus and local governments. Simultaneously, these activities are fed back our researchers in Bridge and Structures Division as firsthand experience in bridge maintenance in the field. The partnership between NILIM and MLIT Regional Bureaus / local governments definitely plays a key role in the transfer of our expertise to the field.