

Efforts for Efficiency Increase / Upgrading of River Structure Maintenance

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1. River Structure Management Research Task Force

The National Institute for Land and Infrastructure Management (NILIM) established the River Structure Management Research Task Force ("River Structure TF") in April 2012 jointly with the Public Works Research Institute (PWRI) as a group of researchers who follows up the structure management technologies suitable for rivers, and is developing activities including (i) research and technical support aiming to upgrade (develop) river maintenance management in both technology and management, and (ii) holding of technical consultation events and seminars aiming for introduction and establishment of advanced technologies for effective and efficient river maintenance management.

2. Activities in 2014

River Structure TF developed its activities with focus on commitment to the preparation of standards for technical development and assessment for efficiency increase / upgrading with respect to inspection and monitoring, which constitute the basis of river structure maintenance. The Ministry of Land, Infrastructure and Transport (MLIT) is considering introduction of new technologies including robot technology for efficiency increase / upgrading of inspection and monitoring. Particularly, in the river and dam areas, we have set up as a goal development / introduction of the equipment etc. that can substitute visual inspection of underwater areas and practical use of river levee monitoring technology. River Structure TF aims for matching of needs for maintenance with seeds for technical development and provides technical advice to ensure effective use of developed technologies on the site. In addition, in order to develop inspection / diagnosis techniques that can be utilized by field engineers, we progressed the study by contracting out to the PWRI, as in last fiscal year, for clarification of cavity in the levees near sluice or other structures, deterioration etc. in concrete components and sheet-pile revetment, and grasp of applicability of nondestructive testing techniques. Further, based on the examination of the inspection manual and subsequent trials conducted last year, we provided technical support for examination about preparation of standards and

procedures for evaluation of inspection results. In order to use as reference in this examination, we collected information concerning infrastructure maintenance methods in foreign countries including Britain and analyzed the difference from the maintenance methods in Japan. For technical consultation, we also received nine requests from local governments. On February 27, 2014, we held a seminar of river structure management research with the theme of "Overseas maintenance methods and database," which served as an opportunity for exchange of the latest information on maintenance in collaboration between industry, government, and academia. The seminar was attended by a total of about 100 persons and all engaged in enthusiastic discussions. For detailed activities of River Structure TF, access the HP. ¹⁾



Figure. River Structure Management Research Seminar

3. Future development

River Structure TF will actively develop activities for the efficiency increase and upgrading of river maintenance management in close cooperation with the MLIT and Regional Development Bureaus, including encouragement of information exchange etc. between industry, government, and academia.

[Reference]

- 1) Homepage of River Structure TF
<http://www.nilim.go.jp/lab/fag/index.html>