

Promotion of research on the maintenance of social capital

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1. Introduction

As social capital is becoming older, plans to elongate service lives are being established based on the concept of preventive maintenance in individual fields of social capital. In addition, studies are rigorously being conducted on inspections, diagnoses, countermeasures, and databases to properly implement maintenance. With the progress of these activities, the importance of common issues in individual fields, such as ensuring the continuity of the PDCA cycle of maintenance, is likely to increase.

Under such recognition, the National Institute for Land and Infrastructure Management (NILIM) is promoting technological development on maintenance in individual fields. At the same time, the NILIM is also solving common problems of maintenance in general, including the direction of studies on maintenance and the setup of issues with high priorities.

2. Improvement of management in maintenance

In regards to the framework to continue management in maintenance, the authors organized the framework consisting of three levels (figure 1) and improved it by creating evaluation categories in individual levels for the roads, rivers, and sewage as self-inspection check sheets as a trial.

In FY 2017, the authors reflected outcomes of these activities in the management of pavement based on pavement inspection procedures.

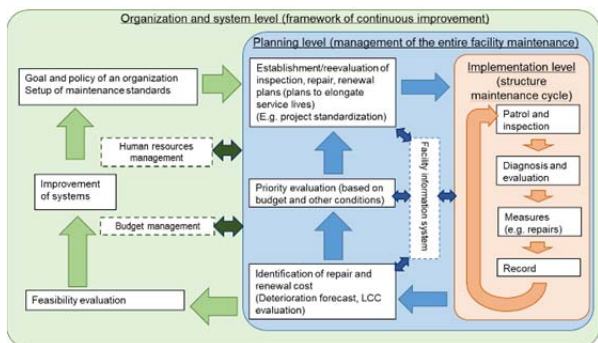


Figure 1: The framework of maintenance and management

3. Use of information in maintenance

The authors evaluated the development of technologies to accumulate and use information to improve the efficiency of and advance the maintenance of social capital that was conducted from FY 2013 to 2016.

Also, studies are being conducted to improve the efficiency of and advance maintenance using CIM based on on-site needs and scenes of uses (figure 2).

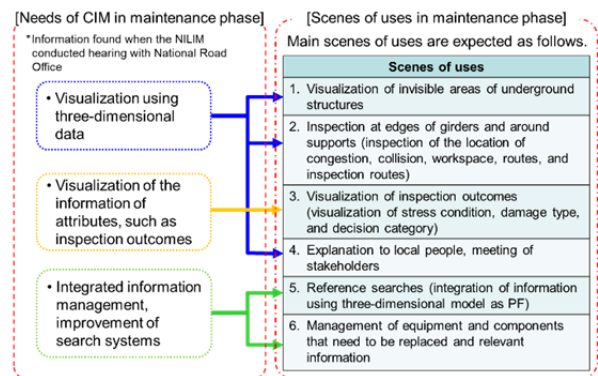


Figure 2: Use of CIM in maintenance phase

4. Future outlook

As five years have passed since 2013 that was positioned as the first year of the maintenance policy, the Ministry of Land, Infrastructure, Transport and Tourism started the Social Capital Maintenance Strategy Subcommittee (third period) installed under the Technology Group, Technology Committee, Social Capital Development Council/Transportation Policy Council in December 2017. The subcommittee has been reviewing the progress of policies and past activities and planning the directions of future activities.

The NILIM also continues to identify on-site challenges, needs, and the latest technological trends and review past studies to conduct research and development and provide technical instructions in the field of maintenance. The NILIM is going to transmit the information of outcomes and the progress of these activities to the outside of the NILIM.