

Formulation of Guidelines for B-DASH Project (ICT operation support system for inundation control facilities)

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1. Introduction

The Ministry of Land, Infrastructure, Transport and Tourism ("MLIT") launched the "Breakthrough by Dynamic Approach in Sewage High Technology" (B-DASH) project in fiscal 2011, and the Water Quality Control Department of NILIM serves as an executing agency of this project.

In December 2016, we have formulated the technology introduction guidelines for the "Technology for practical use of ICT operation support system for inundation control facilities" (the "Technology"), which is an innovative technology for urban inundation control measures adopted in FY2014, based on the results of empirical study and the opinions of local governments and experts.

2. Outline of the demonstrated technology

The Technology enables establishment of a system that integrates individual technologies using ICT for the measurement, transmission, analysis, and provision of information on precipitation, water level, etc. and mitigation of inundation damage by effective operation of existing inundation control facilities including pump facilities (See Fig. 1). As a result of the demonstration in Eba district, Hiroshima, it was confirmed that introduction of the Technology can reduce inundation area by approx. 14 % in the demonstration district.¹⁾

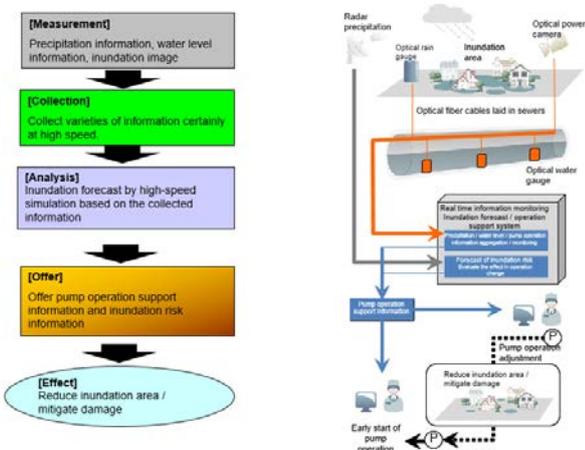


Figure 1: Outline of the Technology

3. Structure of the Guidelines

Figure 2 shows the structure of the Guidelines formulated. First, Chapter 2 provides the characteristics, performance, etc. of the Technology, and Chapter 3 confirms the effect and assessment results of the Technology based on empirical study results. Next, Chapter 4 estimates the effect of introduction in target areas and studies specific introduction plans and system establishment when the effect of introduction is considered high. Chapter 5 describes how to operate and maintain the Technology after introduction.

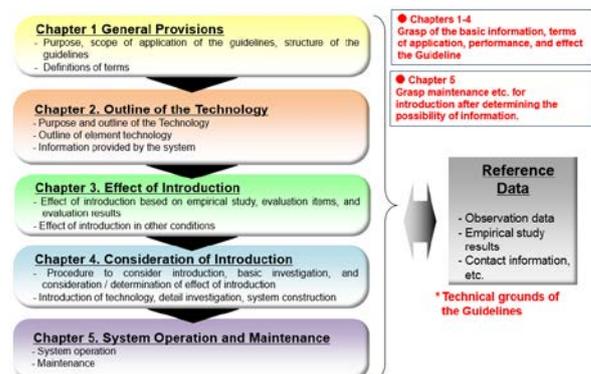


Figure 2: Structure of the Guidelines

4. Utilization of findings and future development

In order to introduce these Guidelines to local governments that actually manage sewerage facilities, sewerage-related enterprises, etc., we held a meeting to explain the Guidelines at Port Messe Nagoya in July 2016, attended by about 120 people. We are going to hold such meetings, etc. to actively introduce the Guidelines and disseminate the technologies that contribute to mitigation of inundation damage in urban areas.

[Reference]

1) Technical Note of NILIM No. 940 "Guidelines for introducing an operation support system of inundation control facilities utilizing ICT (draft)", Dec. 2016