

Joint Research on a Real Time Rainfall Information Network

Year of Research

2009 • 2010

Construction of sound water environments

(Purpose)

This research on real time rainfall information networks which are counted on as new countermeasure methods to deal with combined system improvement and localized heavy rainfall, was undertaken to establish basic technologies of real time rainfall information networks—methods of distributing real time rainfall, water level and flow rate information, real time inundation prediction methods, and effective information contents—and to compile the results in technical documents. This research was conducted over two years, and the goal for the first year was to classify positioning of the real time rainfall information network, create an outline of the network, and enact the overall research plan.

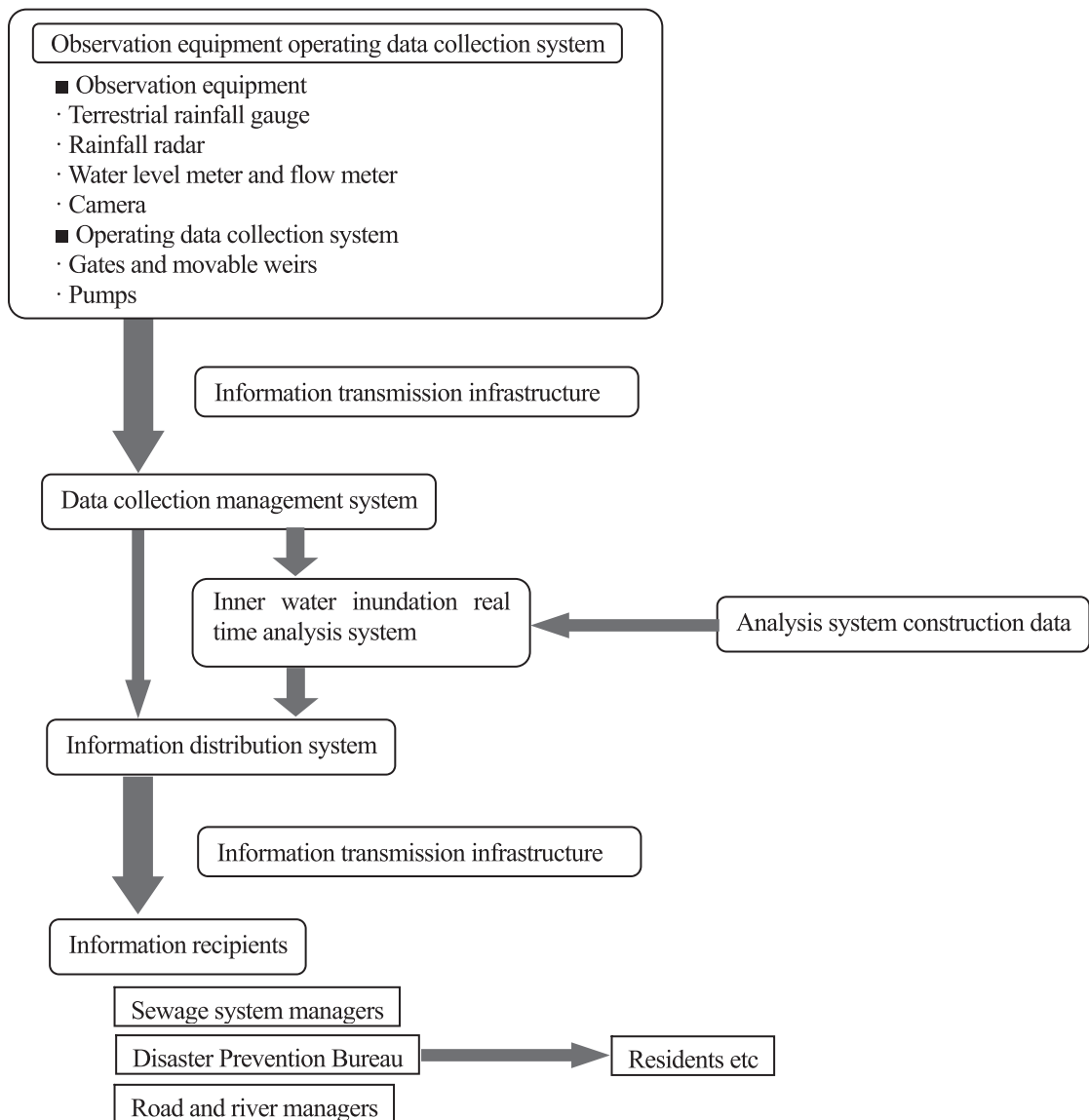


Figure 1. Outline of a Real Time Rainwater Information Network

(Results)

(1) Positioning of the real time rainfall information network

In urban sewage systems, not only hard measures, but advanced rainfall management which combines soft measures are needed. Real time rainfall information networks are counted to be effective as a specific method of achieving such rainfall management, but will be positioned as a method which requires further research.

(2) Outline of a real time rainfall information network

A real time rainfall information network is a network consisting of observation equipment operation data collection system, data collection management system, and an analysis and information distribution system as shown in Figure 1, and its purpose is to provide information necessary to effectively operate facilities for inundation measures and combined system improvement and to motivate residents to take effective self-help activities.

(3) Research flow

To resolve challenges facing real time rainfall information networks, research was performed according to the flow chart in Figure 2.

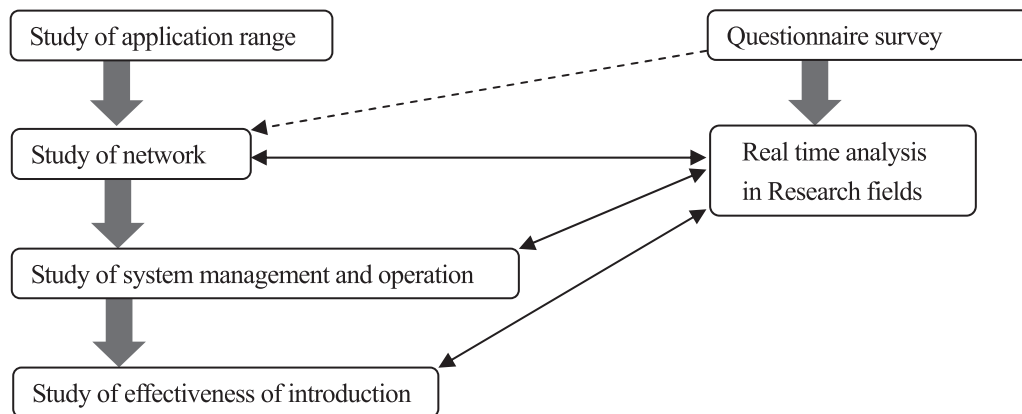


Figure 2 the flow chart

(4) Major contents of deliberations

The following are the major items discussed through this research.

- Study of application range
- Study of the network
- Study of management and operation of the system
- Study of effectiveness of introduction

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Key words

Inundation countermeasure, combined system improvement, real time control