International Water Resources Research Institute
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국제수자원연구소
International Water Resources Research Institute

Outline

In 2011, the International Water Resources Research Institute (IWRRI) was established for 1) serving as a center of experts in the water resources field, 2) solving water resource problems, and providing better education, research, planning and community services, 3) assisting public and private interests in the context of conservation, development, and use of water resources in South Korea. The IWRRI signed MOU with 12 countries to promote education, innovation, leading research, high technology, and public services provided by experts and researchers together with international partners from around the world. The IWRRI are playing an important role in not only interdisciplinary researches but also personal exchange with other countries by producing international students. The IWRRI has research, management, international relationship and public relationship divisions. The mission of our institute is to create an innovative solution satisfying the needs of social and to support the provision of technological challenges of the future.

Research Areas:

The aim of IWRRI is to create an innovate solution for adopting under the extreme climate changes. To satisfy this object, our institute has 4 main research areas - hydrology, hydraulics, soil mechanics and sedimentation researches.

Features of Research Activities

Integrated technology for watershed flood defense (Figure 1) was developed to introduce the integrated watershed sediment simulation system to provide a habitat of ecosystems throughout the design method of spur dike and to keep the channel in the stable state. Flood damage analysis through a semi-continuous monitoring by UAV was conducted to investigate time variation of inundated areas and depth (Figure 2). New technology for channels tabilization considering soil erosion in watersheds was developed (Photo 2). Field application is also very important part of researches to assess the research results. Levee Leakage Monitoring Method was applied and analyzed by installing monitoring sensors to the Yulji levee as test-bed (Photo 3).

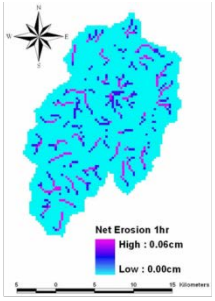

Fig 1. Integrated Technology for Watershed Flood Defense

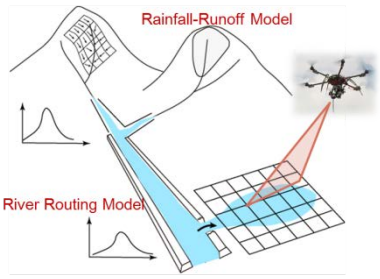

Fig 2. Flood Damage Analysis through a Semi-Continuous Monitoring by UAV

Photo 2. Soil erosion experiment considering coefficient of water permeability and lateral inflow

Photo 3. Installation of sensors into levee