

Hydrological Design of Multipurpose Microcatchment Rainwater Management

Rainwater as a resource has been underrated due to scientific misunderstandings about its quality, the lack of hydrologic design tools for small catchments, such as roofs, the preference for large infrastructures, and the small number of successful cases reported. This book summarizes 17 years of scientific research, operational monitoring, and practical demonstration projects made at Seoul National University Rainwater Research Center.

A new paradigm of rainwater is proposed, which is to collect rainwater and use it, instead of draining it. Based on conventional hydrology and methodology, a hydrologic modelling method for micro-catchment is suggested. By incorporating several controllable measures into the design, the system can solve several water-related problems such as flooding, water conservation, emergency water storage, and groundwater recharge.



Now is the time to adapt. Many good examples are reported from around the world, including South Korea. Fifty-nine South Korean cities have announced regulations and commitment to become 'Rain Cities' by offering financial incentives to rainwater management systems or subsidizing them.

This book is written to give hope to those who seek to transform their community from a 'Drain City' to a 'Rain City'. It has been prepared to clear the ambiguity about rainwater management and transform the experts as well as the citizens to become active proponents of rainwater. This book can be a guide to transform the world into Rain Cities, and become a viable solution toward Sustainable Development Goal Number 6.

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