

Water projects and technologies in Asia: Historical perspective

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Abstract

This presentation highlights the IAHR book, recently published last April, of which the author is the editor-in-chief, on the historical water projects and traditional water technologies of international interest in the Asian region, addressing information on past water projects (mostly before the 20th century) in the regions that are technically and culturally of interest and educationally valuable. The book explores historical water projects in these regions, presenting technologies used at the time, including calculation and forecasting methods, measurement, material, labor, methodologies, and even water culture. Through this book, it is expected that the old Asian wisdom of "reviewing the old and learning the new" would be realized to a certain extent in modern planning and practice of water projects. The book comprises a lead article that the presenter authored and five Parts representing China, Japan, Korea, South Asia, and Southeast Asia, respectively, followed by an invited one from Uzbekistan.

Throughout the book, it is found that historically the Asian monsoon, affecting the Indian subcontinent and Southeast and East Asian regions, induced rice cultivation. It fundamentally needs proper irrigation systems, including reservoirs (dams) and canals, water wheels, and even rain gauges. Flood risks have been more common in Asia than Europe under this climate condition, as recognized in history. To utilize and sometimes overcome these climate conditions, people built and managed many historical and grandiose water projects and invented and used localized but sophisticated water-related technologies in the Asian region.

Keywords: Water Projects, Water Technologies, History, Asia, Monsoon, Paddy Field, Irrigation, Flood Control

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