

STONE AND WATER: THE KAKATIYA LEGACY OF LIFE IN THE DRY LANDS MASTERS OF WATER: WHEN RULERS BUILT LAKES THAT STILL STAND TODAY SUSTAINABLE WATER ARCHITECTURE OF THE KAKATIYA DYNASTY (12TH-14TH CENTURY CE)

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ABSTRACT

The Kakatiya dynasty (12th - 14th centuries CE) was one of the medieval Indian dynasties that developed the most advanced indigenous water resource management system in the semi-arid regions of Telangana, India, by way of unique hydraulic engineering and ecological design of water systems. This paper discusses the integral concept of water architecture created by Kakatiya rulers and their successors and includes such types of water resources as tanks, artificial lakes, chain-tank systems, bunds, sluices, irrigation canals, stepwells, and urban water structures. Special attention is paid to the functions of these water resources in rainwater harvesting, groundwater recharge, sustainable agriculture, flood regulation, conservation of biological diversity, and community-based governance. Examples of the most famous man-made hydraulic structures, such as Ramappa Lake, Pakhal Lake, Laknavaram Lake, and Ghanpur Tank, are presented to prove the importance of the ecological wisdom of ancient inhabitants of Telangana in creating the water infrastructure. Moreover, the research analyses the importance of the Kakatiya practices from the standpoint of modern approaches, such as IWRM, climate adaptation, and sustainable development.

KEYWORDS: *Kakatiya Dynasty; Traditional Water Management; Hydraulic Engineering; Chain Tank System; Rainwater Harvesting; Sustainable Water Governance; Integrated Water Resources Management; Telangana Heritage; Climate Resilience; Indigenous Ecological Knowledge.*

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