

## Traditional Wisdom of Indigenous Vernacular Architecture as Tool for Climate Resilience Among PVTG Indigenous Communities in Jharkhand, India

**Authors :** Ankush, Harshit Sosan Lakra, Rachita Kuthial

**Abstract :** Climate change poses significant challenges to vulnerable communities, particularly indigenous populations in ecologically sensitive regions. Jharkhand, located in the heart of India, is home to several indigenous communities, including the Particularly Vulnerable Tribal Groups (PVTGs). The Indigenous architecture of the region functions as a significant reservoir of climate adaptation wisdom. It explores the architectural analysis encompassing the construction materials, construction techniques, design principles, climate responsiveness, cultural relevance, adaptation, integration with the environment and traditional wisdom that has evolved through generations, rooted in cultural and socioeconomic traditions, and has allowed these communities to thrive in a variety of climatic zones, including hot and dry, humid, and hilly terrains to withstand the test of time. Despite their historical resilience to adverse climatic conditions, PVTG tribal communities face new and amplified challenges due to the accelerating pace of climate change. There is a significant research void that exists in assimilating their traditional practices and local wisdom into contemporary climate resilience initiatives. Most of the studies place emphasis on technologically advanced solutions, often ignoring the invaluable Indigenous Local knowledge that can complement and enhance these efforts. This research gap highlights the need to bridge the disconnect between indigenous knowledge and contemporary climate adaptation strategies. The study aims to explore and leverage indigenous knowledge of vernacular architecture as a strategic tool for enhancing climatic resilience among PVTGs of the region. The first objective is to understand the traditional wisdom of vernacular architecture by analyzing and documenting distinct architectural practices and cultural significance of PVTG communities, emphasizing construction techniques, materials and spatial planning. The second objective is to develop culturally sensitive climatic resilience strategies based on findings of vernacular architecture by employing a multidisciplinary research approach that encompasses ethnographic fieldwork climate data assessment considering multiple variables such as temperature variations, precipitation patterns, extreme weather events and climate change reports. This will be a tailor-made solution integrating indigenous knowledge with modern technology and sustainable practices. With the involvement of indigenous communities in the process, the research aims to ensure that the developed strategies are practical, culturally appropriate, and accepted. To foster long-term resilience against the global issue of climate change, we can bridge the gap between present needs and future aspirations with Traditional wisdom, offering sustainable solutions that will empower PVTG communities. Moreover, the study emphasizes the significance of preserving and reviving traditional Architectural wisdom for enhancing climatic resilience. It also highlights the need for cooperative endeavors of communities, stakeholders, policymakers, and researchers to encourage integrating traditional Knowledge into Modern sustainable design methods. Through these efforts, this research will contribute not only to the well-being of PVTG communities but also to the broader global effort to build a more resilient and sustainable future. Also, the Indigenous communities like PVTG in the state of Jharkhand can achieve climatic resilience while respecting and safeguarding the cultural heritage and peculiar characteristics of its native population.

**Keywords :** vernacular architecture, climate change, resilience, PVTGs, Jharkhand, indigenous people, India

**Conference Title :** ICIP 2024 : International Conference on Indigenous Peoples

**Conference Location :** Madrid, Spain

**Conference Dates :** March 18-19, 2024