World Academy of Science, Engineering and Technology International Journal of Architectural and Environmental Engineering Vol:18, No:12, 2024

Sustainable Design Solutions for Tall Residential Buildings to Improve Quality of Life: A Case of Developing Community: Karachi, Pakistan

Authors: Mahnoor Shoaib

Abstract: Sustainable development involves meeting present needs without compromising future generations' capacity to meet their own while enhancing the quality of life through a healthy and safe environment. In the context of rapid urbanization and globalization, architects and planners bear the responsibility of designing residential buildings that are sustainable and conducive to quality living. Residential buildings serve as multifunctional spaces for personal and family life, making them essential for fostering healthy communities. Therefore, sustainable housing must address not only economic and environmental factors but also social, historical, and cultural dimensions to enhance residents' social lives. This research investigates the socio-cultural aspects of tall residential buildings in Karachi, Pakistan, a developing community characterized by rapid population growth and urbanization. A mixed-methods approach, including qualitative interviews and surveys, was employed to assess residents' perceptions of sustainability in tall buildings, focusing on socio-cultural design constraints and their impact on residential satisfaction. The study finds that socio-cultural elements, such as liveability, social cohesion, and spatial agency, significantly influence residents' satisfaction with high-rise developments. Moreover, it highlights the need for contextual design solutions that integrate local cultural values into the architecture of tall buildings rather than imposing Western design principles. In conclusion, this research provides valuable insights for architects, designers, and urban planners, emphasizing the importance of understanding community needs and preferences in developing sustainable residential environments. By prioritizing socio-cultural sustainability, we can enhance the overall quality of life for residents in tall buildings, contributing to healthier and more vibrant communities.

Keywords: high-rise residential buildings, quality of life, social cohesion, socio-cultural sustainability **Conference Title:** ICBAU 2024: International Conference on Building, Architecture and Urbanism

Conference Location : Dubai, United Arab Emirates

Conference Dates: December 23-24, 2024