Affordable and Sustainable Housing Solutions for Dhaka's Urban Poor

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Abstract

Dhaka's rapid urbanisation intensified housing inequality and forced millions into informal settlements where access to safe shelter, clean water, and sanitation remained severely limited. This study investigated how affordable and sustainable housing solutions could be developed for Dhaka's most vulnerable populations through the integration of global innovations with locally available materials. A mixed-methods approach was used. Online surveys, which garnered a participant pool of 30, were distributed via social media platforms, with both quantitative and qualitative analysis done on the data. Mean score analysis was conducted on Likert scale survey answers, and frequency analysis was performed on thematically coded qualitative responses to identify the most prominent issues. From the mean score analysis tests, clean and private toilet facilities, accessible and safe drinking water, and proper sanitisation emerged as the most urgent needs with a mean score of >4.5, which was extremely close to the maximum value of 5. From the frequency tests done on qualitative responses, the themes of water, shelter/insulation and sanitation/toilets had the highest frequencies with a frequency of >5 out of 14. These findings highlighted a clear hierarchy of infrastructural needs that aligned with UN-Habitat's adequacy framework. By mapping community perceptions to international adequacy criteria, the study provided a practical roadmap for affordable, sustainable, and socially inclusive housing strategies in Dhaka.

Keywords: Affordable and sustainable housing