

## Sustainable Rehabilitation of Concrete Buildings in Iran: Harnessing Sunlight and Navigating Limited Water Resources

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**Abstract :** In the capital of Iran, Tehran, numerous buildings constructed when extreme climates were not prevalent now face the need for rehabilitation, typically within their first decade. Our data delves into the performance metrics and economic advantages of sustainable rehabilitation practices compared to traditional methods. With a focus on the scarcity of water resources, we specifically scrutinize water-efficient techniques throughout construction, rehabilitation, and usage. Examining design elements that optimize natural light while efficiently managing heat transmission is crucial, given the reliance on water for cooling devices in this region. The data aims to present a comprehensive strategy, addressing immediate structural concerns while harmonizing with Iran's unique environmental conditions.

**Keywords :** sustainable rehabilitation, concrete buildings, iran, solar energy, water-efficient techniques

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