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Reconstruction of Khan Yunis after war

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Abstract

Khan Yunis faces a wide range of natural and human-made hazards. These threats pose significant risks to the city's urban fabric, social cohesion, and economic stability—risks exacerbated by the recent war and widespread destruction. The city's coastal location and relatively flat terrain exacerbate its vulnerability to flooding and coastal rainfall, particularly given the acceleration of climate change and the inadequacy of existing storm water drainage systems. Furthermore, Khan Yunis lies within an active seismic zone, further exacerbating the risks—particularly for buildings damaged during the war or constructed without safety standards.

This project addresses a critical gap in the city's efforts: the absence of a comprehensive disaster risk management framework that integrates post-war reconstruction with land use planning. There is an urgent need to shift from reactive emergency responses to proactive, long-term, and preventative urban planning strategies.

In response, this project proposes a phased strategy for post-war reconstruction in Khan Yunis, culminating in a master plan based on the principle of "building back better." This approach is based on integrating a resilience map to guide recovery efforts. Additionally, the project introduces a dynamic predictive model based on artificial intelligence—designed using geographic information systems—to create a resilience index for different urban areas. This tool will support informed decision-making by providing real-time insights into neighborhoods' vulnerability and resilience.

Ultimately, the project envisions the reconstruction of Khan Yunis as a safe, secure, and inclusive city.

This initiative seeks to transform the crisis into a catalyst for a better urban future.