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Exploring the Association between Risks Emerging from Climate Change Scenarios and the Built Environment

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Abstract : There is an international consensus on the climate change in the entire world and this is as a result of the combination of the natural factors, such as volcanoes and hurricanes with increased of human activity on the earth, such as industrial renaissance. Where this solidarity increases emissions of greenhouse gases GHGs that considered as the main driver of climate change scenarios and related emerging risks and impacts on buildings. These climatic risks including damages, disruption and disquiet are set to increase and it is considered as the main challenges and difficulties facing built environment due to major implications on assets sector. Consequently, the threat from climate change patterns has a significant impact on a variety of complex human decisions, which affect all aspects of living. Understanding the relationship between buildings and such risks arising from climate change scenarios on buildings are the key in insuring the optimal timing and design of policies and systems, which affect all aspects of the built environment. This paper will uncovering this correlation between emerging climate change risks and the building assets. In addition, how these emerging risks can be classified in practical way in terms of their impact type on buildings. Hence, this mapping will assist professionals and interested parties in the building sector to cope with such risks in several systematic ways including development and designing of mitigation and adaptation strategies and processes of design, specification, construction, and operation; all these leads to successful management of assets.

Keywords : climate change, climate change risks, built environment, building sector, impacts
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