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Converging climate threats and enablers and barriers to resilience planning in the United States: The ecosystems solution

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The fourth United States climate assessment reports human-induced global climate change is outpacing national resilience capabilities thereby increasing the risk of multiple catastrophes. While some communities are incrementally enhancing their resilience to climate change; U.S. national resilience planning, overall, is not keeping pace with climate change. The paper explores the root causes of the growing national resilience gap and discusses how and why an "ecosystems framework" would enhance systemic resilience. In this paper discusses climate change threats to survivability and sustainability relative to the risks from other physical-environmental-social threats (pandemics, earthquakes, asteroids, etc.). Identifies resilience gaps, with a focus on the legacy paradigm underlying current resilience planning as well as the institutional context in which resilience planning and programming take place. Authors will report initial findings from interviews with key planning and policy officials that suggest a deep cognitive chasm between evolving and converging threats and the prerequisites of effective resilience planning. Presents an alternative to current/legacy resilience planning models that is titled "The ecosystems climate resilience planning model." Explores the types of innovative solutions (enablers that could result from replacing conventional resilience planning frameworks and/or paradigms with the ecosystem planning model. Hypotheses concerning climate change-induced risks and resilience planning are discussed. First, policymakers fail to understand the necessity for effective climate change resilience planning. The time requirements to make and implement resilience decisions are underestimated because of the way climate change is evolving. Second, policymakers lack an understanding of (eco) systems concepts that are key to an integrated, systemic approach to resilience. Third, an endemic lack of understanding is reinforced by institutional, organizational and cultural factors that reinforce fragmented and disjointed planning. Fourth, the ecosystems model (we present) provides a hopeful first step towards developing a robust national resilience system.

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