## Assessing the nature of systemic risks and compound vulnerabilities

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## Abstract

The impacts of climate change are increasingly compounding around the world. Simultaneous extreme weather events threaten coping mechanisms such as migration and food security in breadbasket regions. Systemic risk approaches offer a critical lens to guide riskinformed sustainable action both now, and in the future. This paper proposes a generic conceptual framework to address the nature of such risks. We combine data on weather-related displacement, food insecurity, and conflict to characterize compound vulnerabilities of the underlying systemic risks. Using an impact pathways approach, we illustrate intersections between systemic risk elements and compound vulnerabilities through a case study on Somalia, a country affected by recurring extreme weather, protracted armed conflict, political instability, and displacement. We use a Systemic Risk Impact Pathways model to show how these dynamics have created a complex nexus of strains on the population and its ability to guarantee food security. Advancing a risk-informed sustainable development agenda, we recommend taking a systemic risk approach instead of a single hazard approach.