

New paper in Nature Communications reveals critical gaps in global risk assessment

ASRA's new methodology offers blueprint for responding to interconnected crises

LONDON, UNITED KINGDOM, August 14, 2025 /EINPresswire.com/ -- ASRA (the Accelerator for Systemic Risk Assessment) today announces the publication of a new paper in Nature Communications, titled "A systemic risk assessment methodological framework for the global polycrisis." The paper introduces a novel methodology to assess interconnected risks that can cascade and compound across systems, offering a much-needed blueprint for assessing risks driving today's polycrisis.

By focusing on two historic food and energy crises, the paper highlights how traditional risk analysis tools often overlook the way risks spread and coincide within individual systems (intrasystemic) and between different systems (inter-systemic). The authors identify critical analytical blindspots in current risk management frameworks and modelling approaches and call for more integrated, systems-level approaches to risk analysis and response. This paper presents a generalizable framework to fill this gap. The approach can be applied across a wide range of issues—such as climate change, rapid biodiversity loss, ocean acidification, plastic pollution and "forever chemicals", Al governance, and pandemic preparedness.

Recent global disruptions, from war to climate disasters, demonstrate the urgent need to understand compounding and cascading risks that simultaneously threaten the systems that underpin our day-to-day lives, making this paper a timely contribution to policy and decision-making frameworks about current and future challenges. ASRA will make the methodology available via its open-access <u>STEER: Systemic Tool for Exploring and Evaluating Risks</u> platform in October 2025.

"We urgently need new tools to understand how risks in one system can trigger cascading failures across others," said lead author and Director of Systemic Risk Assessment at ASRA, Dr. Ajay Gambhir. "From farm to fork and from fuel to final energy use, food and energy are a textbook example of entangled systems: they are critical to our lives, but they're far more fragile and interconnected than people realize."

The full paper is available in Nature Communications: https://www.doi.org/10.1038/s41467-025-62029-w

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About ASRA:

ASRA (the Accelerator for Systemic Risk Assessment) aims to mainstream systemic risk assessment in policy and decision-making in response to current and future challenges. Hosted by the United Nations Foundation, this independent initiative advances the field and practice of systemic risk, and advocates for transformative action for the prosperity of all people, societies, species, and ecosystems. Learn more at www.asranetwork.org

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