

## Scoping Workshop on Systemic Risk

### Background

Systemic risk is becoming a prominent topic on the research and implementation agendas of several organizations and research programs (UNDRR, IRDR, Future Earth (Risk KAN), GRAF, etc.). Systemic risk entails that impacts spread within and across systems and sectors via movements of people, goods, capital, and information within and across countries, even continents and lead to potentially existential impacts and system collapse across a range of time horizons. Globalization continues to contribute to systemic risk affecting people worldwide, and COVID-19 exemplifies the challenges it entails to better understand and begin to address global systemic risk. Such critical system interdependencies amplified by underlying vulnerabilities highlight that there is a growing need to better understand cascading and systemic risks and possible political (governance) and societal responses. This includes improving our understanding on how systemic risk emerges in terms of its root causes, including both biophysical and socio-economic aspects (including reciprocal and circuitous causative flows), the types of systemic impacts that are possible, and how resilient social, natural and interlinked and interdependent systems can be considered by integrating systems perspectives, while embracing key intergovernmental agendas (e.g. the Paris Agreement, the Sendai Framework for Disaster Risk Reduction and the Sustainable Development Goals). In addition, such understanding needs to emerge quickly as ongoing and projected global crises call for solutions that incorporate system thinking, and systemic risk and opportunity perspectives into the design of policies and investments across all scales.

The concept of systemic risk has been used in a limited way within the finance sector, and more recently by the climate, environmental, health, technological and other communities. However, **there is no commonly accepted definition on systemic risk<sup>1</sup> and the concept is understood and used differently depending on the sector or discipline.** To make a concerted effort in the research of and responses to systemic risks, it is important to get an overview of the current landscape of systemic risk research and target audiences in terms of approaches to conceptualize systemic risk, on how the concepts are used in practice, and on the governance and data collection/management/integration requirements to improve the understanding and management of systemic risk. An important basis has recently been established by the launch of the Hazard Terminology Report (commissioned by ISC and UNDRR, and led by IRDR), which will be broadened to also cover a multi- and cascading-hazard framework. This will form important input to the understanding of systemic risk, which depends on having sophisticated knowledge and data on the hazard component, but also on the exposure and vulnerabilities of affected systems and their interconnections. Bringing these components of systemic risk together in qualitative and quantitative approaches, including innovation in the science and technology space, will be crucial for advancing our knowledge on the drivers and contexts of systemic risk and necessary for formulating adequate ex-ante approaches and policy responses. In recent discussions with ISC, UNDRR and the Risk KAN it was suggested that **a dedicated expert group (Task group) on systemic risk should be brought together to produce a joint Risk KAN/UNDRR/ISC Briefing Note on systemic risk.** For that purpose, a scoping workshop should be held with key experts working on various aspects of systemic risk to scope and initiate the development of such document within a 6-12month timeframe. The scoping workshop will aim to develop the scope and outline of the briefing note, we well as highlight experts who may be able to support in drafting of the document.

### Aim and scope of the workshop:

The scoping workshop is meant to **kick-off and facilitate a dialogue** between current key actors in the field of systemic risk research and assessment and governance with the aim of creating a provisional author team

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<sup>1</sup> UNDRR provided an updated set of possible definitions, including for systemic risk, on page 45 of the Global Assessment Report on Disaster Risk Reduction 2019 whilst acknowledging that “a commonly accepted vocabulary describing the manner in which risk features in systems is yet to be developed”.

and outline for a Briefing Note endorsed by the various participating groups. The workshop participants will gain insights in activities and ambitions of the different actors related to systemic risk to identify overlaps and complementary aspects of their activities and to gain more conceptual clarity about the relevant dimensions of systemic risk and diversity of research angles (e.g., natural, social, political, economic, or sustainability sciences).

The workshop should help to map out an overview of current approaches to define and apply systemic risk analysis. It should also help identify opportunities for consolidation/alignment to enhance the application of the concept of systemic risk (and associated concepts) in risk assessment and risk management. The workshop should define the boundaries of the anticipated briefing note and provide pointers to get started with the identification of knowledge gaps and research opportunities in a set of recommendations that will foster advances in science and policy practice and fertilize collaboration across the key actors/groups (e.g., Working groups on systemic risk in the GRAF and Risk KAN). The workshop may also identify opportunities where the briefing note, especially case studies and emerging good practice examples, may help inform GAR2022 for which practical application of systemic risk approaches is a central theme.

**Anticipated outcome of the workshop:**

The output of the workshop would be an **outline of the anticipated briefing note on systemic risk**, identifying key areas to be addressed and key networks/organizations/experts that need to be engaged, and possibly opportunities for this work to be used (target audience). The scoping workshop should provide a description of the process for the development (including a timeline) and format of a guidance document that will provide a basis for better calibrated and targeted research on systemic risk and provide input/guidance for various processes (GAR, COP, DRR research agenda, IPCC, Finance (TCFD), etc.). The document should

- i) reflect the range and implications of existing definitions and concepts on systemic risk,
- ii) identify overlaps and complementarities in definitions and approaches,
- iii) briefly highlight illustrative case studies/examples of systemic impacts and successful practices to better understand and manage systemic risk,
- iv) assess available data and data gaps for understanding, monitoring and modeling systemic risks,
- v) evaluate structural barriers in the assessment of systemic risk (data, model responsiveness, model connections, storylines/scenarios, etc.),
- vi) discuss possible response options (including governance), common barriers (including prevailing worldviews and cultural conditioning) and best practices to deal with systemic risk and
- vii) provide useful information for science and policy actions that can build on a set of recommendations (including how to consolidate existing efforts between existing networks (Risk KAN, GRAF, IRDR, etc.).

A dedicated group of authors will be suggested to produce the briefing note that should be short and concise.

**Participants:**

Representatives from the Risk KAN, GRAF, UNDRR, UNFCCC (COP, IPCC), and various sectors, such as health, technology, and finance sectors. Include representatives from public and private sector risk managers and field-based practitioners to ensure diversity of perspectives.

**Timeline:**

- Iteration and approval of workshop outline by UNDRR and ISC (January 2021)
- Invitation for workshop and settling of a date (February 2021)
- A virtual workshop 2-3 March 2021
- Development of the briefing note (March-September 2021)
- Launch of the document (October 2021)