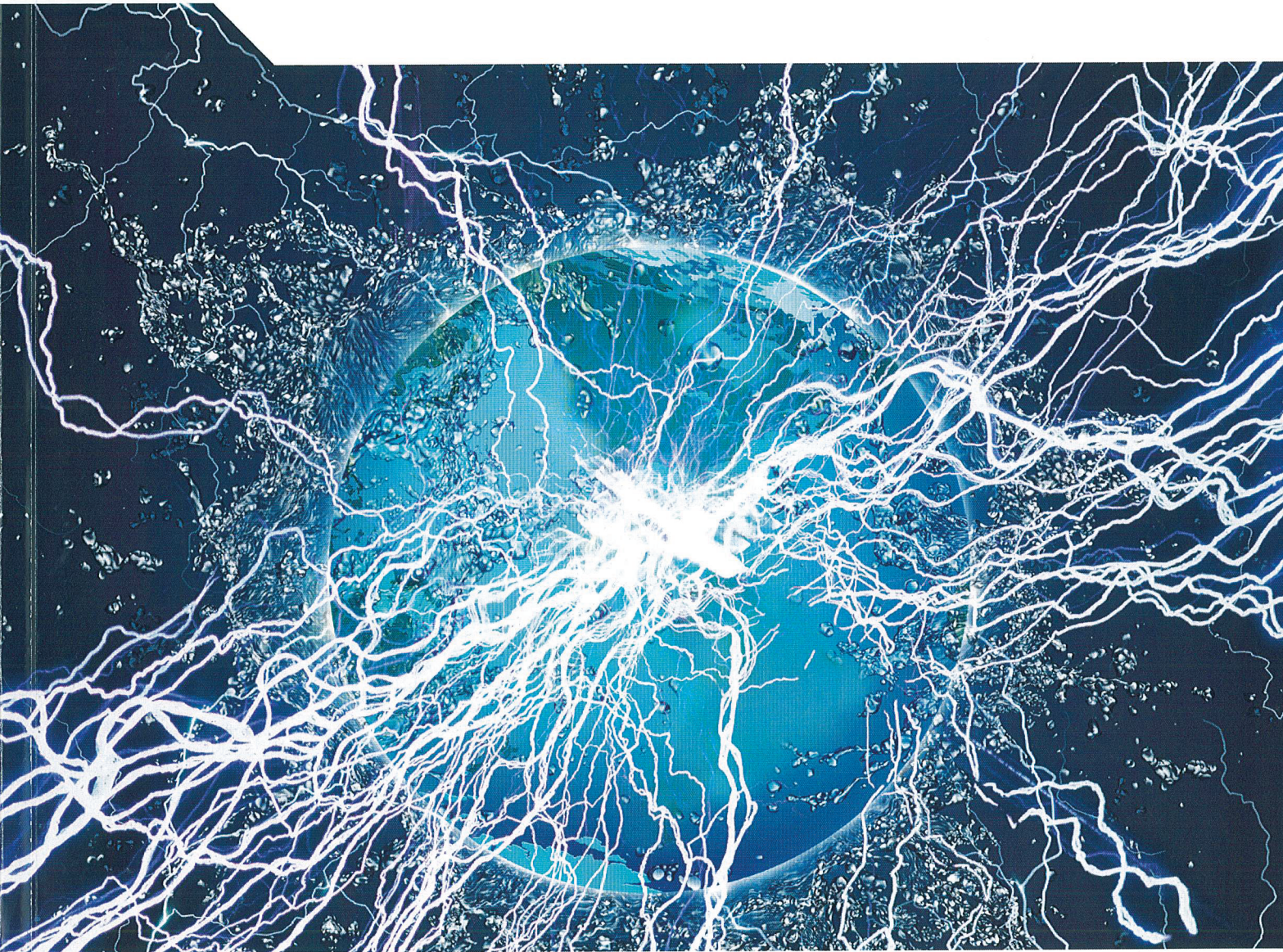




**OECD Reviews of Risk Management Policies**

# **Social Unrest**

**Aleksandar S. Jovanović, Ortwin Renn and Regina Schröter**







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Aleksandar S. Jovanović, Ortwin Renn and Regina Schröter

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## *Foreword*

The report *Social Unrest* is part of a series of five case studies published within the framework of the OECD Project on Future Global Shocks (2009-2011).

The content and analysis of the five case studies served as a basis for the main report: *Future Global Shocks: Improving Risk Governance*, which was published by OECD in July 2011.

The other four case studies are:

- *Pandemics*
- *Reducing Systemic Cybersecurity Risk*
- *Geomagnetic Storms*
- *Systemic Financial Risk*

On commissioning the work in the aftermath of the so called "subprime crisis" that started in 2007-2008, the OECD/IFP project team invited the respective authors and teams of researchers to focus on the mechanisms of propagation of shocks from the local to the global level for a given risk area, particularly in the case of rapid-onset shocks.

Researchers were also requested to provide "fresh views", when possible, about the impact of globalization, for example: the growing mobility of people, goods, information, money, and viruses; increasing networking and interdependences; heightened concentration of assets and population; the rapid pace of technological advances; interconnectedness; and the likelihood and contours of propagation pathways (be they geographical, time-bound, or cross-sectoral in their domino effects).

Authors were also encouraged to use, when possible, "less-conventional" approaches or tools, such as inputs from network and complexity theories, agent-based models or other behavioural sciences in order to maximise the potential value added to the understanding of propagation mechanisms.

Although the five case studies selected by the project steering group in conjunction with the OECD/IFP secretariat offer only a limited sample of potential global shocks, we believe it is sufficiently broad in coverage to allow valid conclusions, messages and policy options to be distilled from the analysis. These are set out in the main report.

The decision was taken by the OECD Secretariat to publish each case study separately and in its own right since they each represent a new focus on propagation mechanisms independently of one other. It is also a service to various communities with sector-specific concerns (e.g. policy analysts in departments of corporations, scholars, NGOs).

Guidance to the authors and teams of researchers was provided by the project team composed of Barrie Stevens, Pierre-Alain Schieb, Jack Radisch, David Sawaya and Anita Gibson.

In addition, gratefully appreciated support has been provided by EU project iNTeg-Risk ([www.intgerisk.eu-vri.eu](http://www.intgerisk.eu-vri.eu)) and the persons working in this project. In particular, Dr. Peter Klimek of EU-VRi has greatly contributed to the work related to the Agent-Based Model part and Mrs. Roswitha Kokejil of University of Stuttgart has kindly put the document the document in its desired shape.

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## Abbreviations

ABM	Agent-Based Model/Modelling
GIS	geographic information system
HSE	Health, Safety, Environment
HSSE	Health, Safety, Security and Environment
iNTeg-Risk	Early Recognition, Monitoring and <u>I</u> ntegrated Management of Emerging, <u>N</u> ew <u>T</u> echnology Related <u>R</u> isks
IRGC	International Risk Governance Council
KPI	Key Performance Indicator
MCDM	multi-criteria decision making
NaTech	Natural Hazard Triggering a Technological Disaster
OECD	Organisation for Economic Co-operation and Development



## *Chapter 1.*

### **Risk of social unrest**

#### **Social unrest as a systemic risk**

Risks can generally be understood as the potential for experiencing harm (Rowe, 1979; Renn and Zwick, 2008). More specifically it denotes the likelihood of a scenario leading to adverse effects caused by an activity, event or technology. The causal chain is not always one-directional. In ordinary terms, a risk agent (hazard) impacts on a risk object that is of value to individuals or society as a whole. The impacted risk object can then be the cause of further risks to other objects or even trigger a feed back to the source of the hazard. A good illustration of this two-way relationship can be found in technologies that pose risks to the environment. If this risk materializes and harms the environment it may pose new risks to others, for example persons who eat contaminated food. Finally, once the risk is acknowledged the technology causing that risk might be abandoned or changed. Moreover, the developer of that technology may face legal actions or other forms of social sanctions. In this way risks are part of an interaction between humans, technology and natural environment. Natural causes (such as earthquakes), technologies such as nuclear power plants but also human activities (such as clearing the rain forest) are good illustrations for this interaction (Beck, 1986; Luhmann, 1985).

Damages arising from such events can generally be described as physical or psychological harm to objects that humans value. This may be the loss of property, health or even life (Aven and Renn, 2010). Since objects that humans value are at stake the term risk does not only denote an analytical concept of how to link hazards with potential damage to valuable objects but also a normative orientation to mitigate, reduce or avoid risks.

The idea of interaction between hazard and risk object and the focus on analytical as well as normative perspective are also major starting points for dealing with the connection between risks and social unrests. Social unrest can be viewed as a risk: depending on its manifestations objects that people value can be threatened by violence or other forms of social outrage. Social unrest, however, can also be the trigger or the initial hazard leading to damage in other areas, for example economic losses due to technological sabotage or boycott. Social unrest is hence cause and effect in a complex risk web that links technological, natural, social and cultural drivers. This situation is best described in the framework of systemic risks (OECD, 2003; Renn and Keil, 2008).

From a more systemic or functionalist point of view social unrest can be conceptualized as risk (posing threats to society) but also as an opportunity for positive change or development. For example those who pursue social or political goals as a means to reshape society, may turn to stimulating social unrest as an instrument for facilitating changes. Even though social unrest may trigger positive changes in society, it is associated with the risk of experiencing damage to human lives and property. It