



A hidden risk of climate change: More property damage from drought-induced soil subsidence in Europe

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Zurich, 4 July 2011 – Europe is witnessing a dramatic increase in property damage as a result of soil subsidence. Climate change could magnify those risks, a new Swiss Re publication shows. A new loss model developed by Swiss Re and the Swiss Federal Institute of Technology (ETH Zurich) suggests that soil subsidence will worsen and spread in Europe, with some areas seeing a more than 50% rise in future losses.

Prolonged dry spells, as recently seen in parts of Europe, can cause the ground to sink by so much that cracks appear in the earth, tearing apart the foundations of houses, bridges, factories and other structures. In the worst case, whole buildings can collapse. Climate change will magnify these risks as factors such as rising average temperatures and more erratic rainfall continue to alter soil conditions.

"As our climate continues to change, the risk of property damage from soil subsidence is not only increasing but also spreading to new regions in Europe," says Matt Weber, Head of Property & Specialty Underwriting at Swiss Re.

European property insurers face major potential losses from drought-induced soil subsidence, states Swiss Re's latest publication "*The hidden risks of climate change: An increase in property damage from drought and soil subsidence in Europe*". In France alone, subsidence-related losses have risen by more than 50% in the last two decades, costing affected regions an average of EUR 340 million per year.

To better quantify and more adequately price risks associated with soil subsidence, researchers from Swiss Re and ETH Zurich have developed a new loss model. It combines Swiss Re's expertise in natural catastrophe modelling with drought-related data compiled by the Zurich-based Institute for Atmospheric and Climate Science.

Large parts of Europe will experience more sporadic rainfall and drier soils in the future and these areas will therefore face greater losses from shifting soil, the model shows. In some regions, the soil subsidence loss potential for the period 2021 – 2040 is expected to increase by more than 50% compared to today.

Soil subsidence is an insurable risk. As the problem becomes more widespread, however, a more economical solution for affected communities will be to combine incentives for constructing more



subsidence-resistant buildings with insurance to cover damage from the most extreme droughts and soil movements. Various risk transfer solutions are available to protect against losses from such events. Besides traditional indemnity-based policies, parametric covers and index-based schemes could offer a viable solution. These innovative products, which pay out whenever their index crosses a predefined threshold, have the advantage of lower administrative costs and ensuring quicker disbursements.

"Efforts to manage soil subsidence risks are most effective when they form part of a broader climate adaptation strategy that takes long-term climate impacts into account and engages multiple actors in finding the right solutions," says David Bresch, Head Sustainability & Political Risk Management at Swiss Re.

Notes to editors

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