



Risk(y) Calculations for Railway Infrastructure in EconoMe

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The online tool EconoMe was initiated in 2008 as a mandate of the Swiss Federal Office for the Environment FOEN in order to assess the effectiveness and economic efficiency of planned natural hazard mitigation measures. The tool calculates the risk posed to different damage potential without and with the proposed mitigation measure and sets this risk reduction in relation to the mitigation measure costs. EconoMe has undergone considerable development in the past decade. Of the six damage potential categories, which encompass buildings, roads, railways, lifts and ropeways, pipes and wires as well as agricultural areas, forests and parks, it is the railways which have experienced the greatest change. An overview of these modifications to the railway risk methodology and the reasons behind them is given, with a focus on the current state of risk calculation for railways. The journey with EconoMe since 2008 has been an interesting one – a balancing act between available data, practicality, resources and complex reality in the hunt for a method which is “accurate enough”. Test calculations are presented and compared to statistical data. The current railway methodology is more transparent and consistent than previous ones and has consequently even been adapted for roads. However, uncertainties and data constraints still remain which are discussed with suggestions for future improvement.

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