

Paper Title: Risk assessment and uncertainties

Author(s): H.H. Einstein & K.S. Karam

Abstract:

Landslide hazard and risk assessment are well established, applied widely and are essential in planning mitigation. They often rely on the principle of decision making under uncertainty, which in turn requires that one is able to assess and describe the uncertainties. This paper will, after a brief introduction to the assessment process and the sources of uncertainty, show that describing uncertainties poses significant problems. This is done with a series of examples. Since it is necessary to be able to do something about landslide assessment and mitigation in spite of these complexities, the paper outlines two possible approaches in its second part. One is the systematic structuring of the decision making process, and the other is to use stability charts and/or prioritizations. These approaches are not new but one can show that they are quite useful in simplifying the problem.