

New Landslide Hazard Assessment Tools for Planners
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Outline

Introduction

Review of Conventional Methods

Air Photo Interpretation

Field Based Mapping

Qualitative Assessment of Hazard

Deterministic Models

Primarily Empirical

Bernknopf cost-benefit model (Cincinnati)

SMORPH (forested watersheds)

Primarily Rational

Simons-Li-Ward infinite slope model

SHALSTAB (various locations)

USGS Seattle

USGS Seismic (Los Angeles, Oakland)

Probabilistic Models

Primarily Empirical

USGS Poisson probabilistic model (Seattle)

Chung & Fabbri regression models

Italian regression models

Primarily Rational

Polygonal LISA (forested watersheds western US)

SINMAP

Mankelow & Murphy FOSM (Los Angeles)

South American FOSM example

PISA (Wheeling WV)

Remote Sensing Tools

LIDAR

InSAR

Comparison of Advantages and Disadvantages

Conclusion

References