



Project Sheet:

## The Regional Riskscape Model

natural  
hazards inc.



*Devastation to infrastructure resulting from a tsunami*

RiskScape is multi-hazard risk assessment system that has developed out of a joint-venture research programme between GNS Science and NIWA. It involves the development of a generic model that allows local authorities and emergency management groups to analyse their regional risks from multiple natural hazards, thus assisting with community resilience and public safety.

RiskScape enables groups to: (i) Estimate probable losses; (ii) Identify priorities for the minimisation of disruption to society at local/regional/government levels; (iii) Inform a comprehensive risk management process. The Riskscape model can also inform district/city planning of the responses and investments needed for hazard mitigation.

RiskScape calculates damage and loss to buildings and infrastructure (including roads, cables and pipelines) exposed to earthquake, flooding, volcanic ash fall, wind and tsunami using either scenario or probabilistic hazard models. It also calculates causalities from events using census data. RiskScape can produce comprehensive predictions on many facts of hazard impacts.

Find out more about the RiskScape Model at: [www.riskscape.org.nz](http://www.riskscape.org.nz)

### Project Description

**Project:** The Regional Riskscape Model

**Location:** New Zealand

**Client:** Foundation for Research, Science and Technology (FRST)

**Total Project Value:** Confidential

**Start Date:** July 2004

**End Date:** Ongoing

**Lead Company:** Joint Venture

**Associated Consultants:** GNS Science  
National Institute of Water and Atmospheric Research (NIWA)

### Key Features:

- Disaster and Emergency Planning
- Risk Management Advice
- Land-use Planning
- Soil Mechanics, Earthquake, and Wind Engineering
- Flood, Tsunami, and Volcanic Hazards and Mitigation

Reduction Readiness Response Recovery