Natural disasters can generate large volumes of debris. In some cases, many years worth of waste can be generated in a single event – often overwhelming local solid waste management facilities and personnel. The need to plan for disaster debris has only been recognised, internationally, in the last 15 years or so. However, the role of debris in disaster management is still largely under-estimated and misunderstood – presenting as more of a logistical technical exercise and road-block to recovery than an action integrated into both the emergency response/recovery and solid waste management system, with social, environmental and economic effects.

Disaster debris impacts almost every aspect of an emergency response and recovery effort. Disaster debris can impede rescuers and emergency services reaching survivors; inhibit provision of lifeline support; pose a public and environmental health hazard; and hinder the social and economic recovery of the affected area. Poor management of a clean-up effort can exacerbate these problems, and can result in a slow and costly recovery which is potentially risky to public and environmental health in both the short and long term.

Drawing on international experience and case studies the aim of the research is to develop a decision making framework designed for collaborative use by relevant regional disaster debris management decision-makers. The framework will be tested through the development of two disaster debris management plans in New Zealand.