

**Fraser Morgan**<sup>1</sup>, Suzie Greenhalgh<sup>1</sup>, Estelle Dominati<sup>2</sup>

<sup>1</sup>Landcare Research, New Zealand

## **Ecosystem service approaches to sustainably manage terrestrial landscapes**

**Key words:** Global/Local Sustainability, Decision-Making, Modelling

### **Abstract:**

There has been an upsurge in use of ecosystem service concepts to assist decision-making globally, particularly around the use and management of natural resources. Both public and private institutions are exploring how ecosystem service approaches can enhance the sustainability of their decisions. New Zealand, a country of abundant yet diminishing natural resources, is no different with business, local government and researchers with communities and landowners seeing how this concept can be applied in practice. While challenges exist with integrating ecosystem services into decision-making, evidence to date suggests the approach is compelling and provides a structured, transparent, and neutral mechanism to manage natural resources. A summary of the key challenges identified by these initiatives will be summarised covering the availability of knowledge, choice of indicators, how to include indigenous cultural values, language and communication, and use in decision-making. To address a number of these identified challenges a framework, the Biodiversity and Ecosystem Services Assessment (BEST) framework, has been developed to facilitate the use of ecosystem services in decision-making. This framework is based upon New Zealand's experiences with the use of collaborative governance processes for regulatory decisions to manage freshwater resources and also international experiences with ecosystem assessments. We will outline how the BEST framework is being used in a watershed context to explore future landscape decisions as well as highlighting some of the outstanding challenges yet to be resolved.