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# Working together for environmental management: the role of information sharing and collaborative learning

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### **ABSTRACT**

Resource management issues continually change over time in response to co-evolving social, economic and ecological systems. Under these conditions adaptive management, or 'learning by doing', offers an opportunity for more proactive and collaborative approaches to resolving environmental problems. Effective collaborative management requires different stakeholders associated with environmental problems to develop and enact solutions co-operatively, as opposed to acting as advocates purely in their own interest. However, because environmental issues are generally characterised by conflicting social perceptions, it is often difficult to ensure adequate stakeholder participation in developing and managing information to support collaborative decision making and subsequent change 'on-the-ground'.

An initial framework for a collaborative approach to managing information within an adaptive management approach is outlined at the beginning of this study. This is the Integrated Systems for Knowledge Management (ISKM) approach. This thesis is developed through a six-year action research inquiry into its implementation. This involves one main case study (tussock grasslands) and two smaller, but related, ones (black stilt; Tb vector control).

Consistent with an action research approach, the inquiry developed as it was influenced by the different organisational and social issues that emerged during the case studies and by the subsequent analyses that were made. These included how to manage: forums that support constructive community dialogue; environmental conflict; evaluation processes that meet the needs of the different parties involved; multi-stakeholder information networks; and the integration of both 'soft' and 'hard' inquiry processes within research and development initiatives. The thesis concludes by showing how these different process issues are linked in practice. A final version of ISKM is outlined, but it is suggested that this will only work if it is implemented in an environment characterised by high social capital. Action research is seen as a process that both helps the development of this social capital, and provides lessons into how it can be expanded. Moreover, building capacity for the use of participatory learning processes should be part of the method: that capacity cannot be assumed to be there. The role of evaluation in building capacity for participation, and measuring process success is highlighted. Finally, it is suggested that further insights should be drawn across action research case studies so that more valuable and robust lessons in supporting collaborative environmental approaches can be gained.

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