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Appendices

Appendix 1 Critical conversations

As part of the reflection process of this thesis I have had a number of 'critical conversations' during which I have discussed ideas that have been emerging through my work. These happened across the thesis, and were used at times to test the validity of my findings against the experiences of others and at other times to aid with the interpretation of particular events. These were conversations in addition to those that took place as part of the case studies, and in addition to discussion held with members of CLEM. The people with whom I held these conversations are listed below:

Maggie Atkinson, community and landscape specialist,	2004–2009
Jenny Chillcott, Tamaki Transformation Project (formally Waitakere City Council – Twin Streams Project)	2009
Scott Crawford, Southland Regional Council	2005
Ann Dowden – Research New Zealand	2008
Sarah Greenaway, The Centre for Social and Health Outcomes Research and Evaluation	2009
Chris Ferkins, Waitakere City Council	2004–2009
Dr Andrea Schöllmann, Group ManagerTertiary Education, Ministry of Education	2008
Regan Solomon, Waitakere City Council	2009
Kathryn Scott, evaluator for Tamaki Transformation project	2009
Andrea Clark, Socialfoci (independent evaluator and researcher)	2009

Appendix 2 :
The New Zealand context for community-based environmental management

Implementation of community-based management in New Zealand has been heavily influenced by the significant reform of local government functions, structures and boundaries in the late 1980s. The innovations saw amalgamation of multiple agencies responsible for diverse resource management functions (e.g. borough councils, harbour boards) into a two tiered territorial and regional government structure, which in some cases has been further merged into a single unitary authority). Local government is now comprised of 12 regional councils with boundaries based on natural river catchments, 16 city councils and 57 district councils. The regional councils are the primary resource management agency with roles in the management of water quality and allocation, soil conservation, coastal planning, biosecurity, flood control and disaster management. Territorial councils (city and district) are mandated to manage for community development, health and safety and infrastructure, and land-use planning.

The local government reforms were matched by a substantive overhaul of resource management legislation which brought together disparate laws on natural and physical resources under a single piece of legislation – the 1991 Resource Management Act (RMA). Under the RMA regional councils were made responsible for the development and implementation of regional environmental management plans. Within broad guidelines considerable flexibility in the pursuit of this mandate is permitted to regional councils. Subsequently, in coming to grips with new responsibilities in the 1990s, regional authorities pursued a variety of geographic and issue-based approaches to planning. This was coupled with some innovation in facilitating public participation in resource management planning.

The review of the environmental and local government legislation that preceded the reforms created an expectation that they would result in the ceding of more power to the community (Van Roon & Knight 2000b). Scaling down of resource management responsibility to the regions has undoubtedly been an outcome of the reforms, but scaling up has also occurred. To some, local body amalgamations meant loss of administrative bodies that communities felt some ownership of and replacement with larger councils that were regarded as less accessible (ibid.). Regardless of whether the new management structures themselves offered greater or less community investment in resource management there was a surge in interest in community based, informal environmental management options. Van Roon and Knight (2000b) offer two alternative perspectives on this. They suggest, firstly, that councils have intentionally attempted to empower the community by enabling them to do things by their own initiatives, but secondly, observing that a reduction in council resources has been coupled with a widening of vision regarding the need to integrate ecological, economic and social issues, leading to an upsurge in reliance on community voluntary labour to recognise and address environmental concerns.

In New Zealand today a full and complex range of community-based environmental management initiatives exist. These include widespread establishment of community groups focused on specific tasks (e.g. dune management, water quality), and catchment communities addressing environmental health (e.g. Taieri River) or development issues (e.g. Lower Waitaki River) for their local region. Supporting some form of community-based management has become a core concern of local authorities, although by and large such activities have evolved to be less about power devolution or sharing than about harnessing public support for resource management strategies.

Appendix 3 Resource use efficiency initiatives at CCC 1999–2005 (derived from Goldberg 2001; Brown & Stone 2007)

Target Zero business training	Six-month training programme based on workshops and on-site assistance to enable companies to identify, quantify and minimise waste
Target Zero club	Open meetings on environment and sustainability topics of interest to business, e.g. renewable energy, hazardous substances, transportation
Workshops	(i) The Natural Step (TNS) workshops (2001–2002): to help businesses look beyond immediate savings to plan a sustainable future (ii) Environmental Management System (2003–2005): integrating cleaner production within a systematic management framework
M2M Retail	Pilot 'Measure to Manage' programme for inner-city retailers, focusing on energy efficiency and waste reduction
CCC Outreach to sector groups, schools & hospitals	(i) Work with sector groups to improve environmental performance (e.g. work with foundries to reduce sand to landfill, identifying opportunities for minimising waste in Christchurch schools) (ii) Undertake site visits and make recommendations (e.g. support reduction in volume and toxicity of solid waste from hospitals)
Construction Waste Minimisation	Pilot programme working with three construction companies to divert waste away from the Christchurch landfill sites for recycling or reuse
Information services	(i) Web-site based resources. (ii) Quarterly newsletter with national distribution – includes examples of resource efficiency and sustainable management

Appendix 4 Summary of TZ company training programme rounds

First Target Zero project **1997–1999** 50% funded by MfE, initiated and managed by ECNZ, supported by CCC and Southpower Two-year programme. Consultants used to assist companies with students	Alliance Group, Sockburn Plant Leiner Davis Gelatin NZ Ravensdown Fertiliser Co-operative Mainland Products	Tait Electronics Feltex Carpets Food Solutions Skellerup Industries Park Royal Hotel Millenium Hotel Canterbury Health Christchurch Polytechnic
Second Target Zero Project **1999–1999** Run by CCC in association with the Canterbury Manufacturers Association Six-month programme. Each business assisted by a consultant, which provided an opportunity for consultants to gain experience	GL Bowron & Co. (tannery) Kaputone Wool Scour Lion Breweries South Security Plastics Air New Zealand Engineering Services Reflex Product Waitaki Biosciences NZ Canterbury Spinners The Press	
Third Target Zero Project **1999–1999** Run by CCC. Hosted by New Zealand Institute of Management (NZIM) Six-month programme. Each company paired with a consultant	The Press Arthur Ellis A Verkerk Lane Walker Rudkin – Hosiery The Christchurch Star	
Fourth Target Zero Project **Feb–Aug 2000** Run by CCC. Hosted by Canterbury Manufacturers Association Six-month programme. Each company paired with a consultant	Heller Tasty PDL Industries Heinz Watties Brintons Ravensdown MCP Untouched World Glass Tech	

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Appendix 5 Target Zero teams' evaluation checklist

Areas of team performance		Rate
1	**Results and productivity**	
1.1	Does the team have clearly identified actionable steps to achieve its goals?	
1.2	Does the team monitor its progress by concrete milestones?	
1.3	Does the team regularly and frequently assess how well they are working together?	
1.4	Are the team's successes, big and small, acknowledged?	
2	**Team structure**	
2.1	Is the team the right size, with the right mix of players for your purpose?	
2.2	Does the team have the flexibility to bring in people and change membership to suit the current project?	

2.3	Does the team have the right resources? Money
	                                                                Time
	                                                                Resources	

2.4	Does the team meet regularly?	
3	**Team operation**	
3.1	Does the team have effective leadership?	
3.2	Do the team members understand their roles and are they able to carry them out effectively?	

3.3	Does the team have good networks? Internally
	                                                        Externally
	                                                        With management	

3.4	Does the team have useful meetings with clear identification of tasks?	
3.5	Does the team have effective ways of managing conflict?	
3.6	Is the team functioning in a way that people freely express ideas and share opinions?	
3.7	Does the team stay motivated?	
4	**Team skills: Does your team have these?**	
	Managing meetings: setting agendas, managing time, etc. Documenting progress: keeping minutes, records, etc. Data and information gathering Facilitation: dealing with conflict, managing constructive debates, etc. Innovation: introducing creative ideas Presentation: summarising finds to relevant audiences Networking: bring comment, feedback, etc., to the team Motivation: reminding team of success Task performing: reliably doing relevant tasks	

Appendix 6 Workshop process for the Target Zero team performance evaluation

In facilitated sessions lasting between 1.5 and 2 hours, teams were asked to reflect on their performance in five main areas (represented here in the order in which they were covered).

1. Goals
2. Results and productivity
3. Team structure
4. Team operation
5. Team skills

1: Because teams are purposeful, i.e. brought together to achieve certain tasks, each evaluation began by asking teams to define their goals. The teams were asked to reflect on both general team goals (from the company's point of view) and personal goals (goals that each team member hoped to achieve by their involvement in the team).

2–5 were addressed through a series of questions identified in the checklist (see Appendix 5). These questions were opened up for discussion by all the team. As a way of closure the team was asked to come to a consensus on their performance in this area using colour dots according to a 'traffic light' system.

G   *This aspect is well covered*
Y   *We need to think about this as it maybe a limiting factor*
R   *This factor needs to be addressed as it is limiting team performance*

Where teams felt they were doing well, they were prompted to think about reasons why this was so. Where teams identified they had a weakness, they were offered a short opportunity to work through the barriers and develop steps that could be taken to improve their performance.

All teams received copies of the notes taken of their evaluation, which were confidential to them and not copied to the TZ programme coordinators or to their companies. Generic information on findings common across teams was presented back to the WMU in a workshop and through two final reports.

(Kilvington & Allen 2001, p. 31)

Appendix 7 Teams involved in Target Zero teams' evaluation

Group 1 – Company teams involved in past TZ training programmes		**Group 2** – Company teams involved in current TZ training programme	
	Ravensdown Fertiliser Co-operative *First Target Zero programme*		Also involved in current TZ training programme
	Tait Electronics *First Target Zero programme*		**BICC General Cables NZ**
	Reflex Products *Second Target Zero programme*		**AEP Flexipac**
	GL Bowron & Co. *Second Target Zero programme*		**Quality Bakers**
	Canterbury Spinners* *Second Target Zero programme*		**Canterbury Laundry Service**
	The Christchurch Star *Third Target Zero programme*		
*Phone interview with team leader only			

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Appendix 8 The ISKM (integrated systems for knowledge management) framework
(origin Allen 2001)

The ISKM framework was first developed during a long-term, multi-disciplinary research programme that worked in the highly contested and oftentimes polarised area of high-country management, in the Mackenzie Basin in the South Island of New Zealand. Dealing with particular issues of rabbit-induced soil erosion and invasive hawkweeds the programme frequently found itself embroiled in contentious issues of land management and clashes between conservation, tourism and pastoral farming interests. In this context ISKM emerged as a framework to support dialogue and decision-making critical to transdisciplinary research on complex environmental management problems. Its premise is that managing constructive involvement of stakeholders is a skill that requires as much emphasis as does developing abilities in technical problem solving and the design of information technology. ISKM builds on principles of community participation, constructivism and experiential learning, organisational learning, adaptive management and systems thinking, and is applicable to developing the knowledge and actions needed to change situations constructively. Like these other participatory approaches, ISKM does not offer a recipe for desirable change, but rather a description of an action-oriented process that may enable change.

The figure below illustrates the key phases of ISKM (Allen & Kilvington 2002).
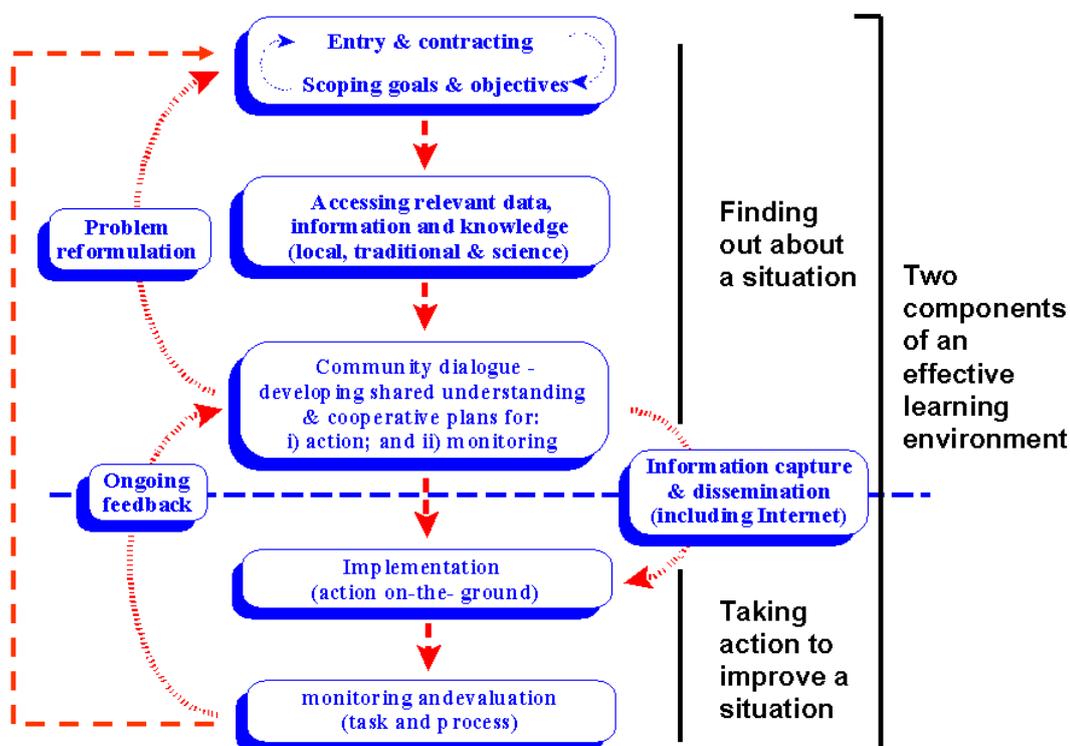
Appendix 9 Evaluation check sheet based on ISKM framework

Goals for IRAP	
What are the goals of the IRAP Project? *[Participants identified the overall goals of the project from their perspective. At the end of the session the group returns to these to assess their progress]*	**Rate**
What are some of the personal goals/individual goals around that table?	

Four phases of integrated model development based on ISKM

No.	Task	Rate
Entry and contracting *In this section we ask who is and should be involved and when?(stakeholder analysis)*		
1	Who is going to use the tools/models/decision support system from IRAP? Are those people involved?	
2	Who needs to understand the information coming out of these tools, to enable them to change their practice? Are these people involved?	
3	What are the problems, past issues that have prevented people from cooperating on this – are these issues being addressed?	
Accessing relevant data, information, knowledge *It is hard to find any one person/group with enough knowledge to make a model. This section looks at issues of drawing together information from science, agencies, & land managers.*		
4	Where is most information coming from to develop the IRAP models and is the balance of different sources appropriate?	
5	Are there other sources of knowledge that should be inputting, and are there adequate processes for enabling this to happen?	
6	Are there any stakeholders who have information that they are likely to think should have been included?	
Dialogue and negotiation *The dialogue and negotiation phase of a project assesses the importance and value of different knowledge and information. In this phase the project members ask 'what does this mean?' and 'how will it help us get where we are going?' Out of this process participants should have developed a shared understanding and be able to take further action.*		
7	What processes are there in IRAP for dialogue and negotiation around information and knowledge?	
8	What happens when there are divergent views?	
9	How is conflict managed?	
Implementation and review *The IRAP models, when released, will only be 'state of the art' for a short period of time. The value of the decision support system depends on the ability to update and in particular to ground-truth based on monitoring information from management practices. Revealed uncertainty around critical issues should direct further research.*		
10	How updatable will the IRAP tools/models be?	
11	Are you setting up ways to use monitoring information from management to validate/update the models?	
12	Are the pathways to identifying further research for IRAP clear?	

Building the climate that makes it work

	When a model comes out it gives us information based on what how it has been built – how much other people believe this depends on trust and relationships	
13	How well aware are you of the key political and strategic relationships necessary to ensure the IRAP models are trusted?	
14	How well are you addressing the difficult relationships?	
	Throughout IRAP only a small subset of interested stakeholders can be directly involved. This section looks at the way information is captured and made available to wider audiences	
15	How well is the information all the IRAP participants generate (not just what goes into the IRAP models) being captured?	
16	Are there effective mechanisms for communicating learning from IRAP to wider audiences?	
17	How well is IRAP building a community of interest through developing networks with the wider community of stakeholders?	

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Appendix 10 Watershed Talk initial interview questions

Who are you?	
1	How would you describe your connections to the Motueka catchment? (Sense of continuity, etc.: length of time resident; family or other connections; intentions to remain or see themselves here into later life; membership of any groups?)
2	What are the qualities (social and physical aspects) you appreciate most about the Motueka catchment?
3	Tell me in what way you enjoy/experience/use the aspects you have just described? (maybe some story about these aspects)
Care and responsibility	
4	Do you perceive there is anything you do in your everyday life/work in the catchment that impacts on the things that you identified as important to you?
5	Do you perceive there is anything that anyone else (person or organisation) does in their everyday life/work that impacts on these aspects?
6	In your view do you think that enough care and responsibility is being taken of the Motueka catchment?
7	Are there any current changes to the Motueka catchment (or things you think might change) that concern you? Do you think these changes are very likely?
8	Can you pick one of these concerns and tell me if there is anything going on to address it that you already know about? [Looking for a story enlarging on knowledge of active taking of care and responsibility in the catchment] Alternatively if they have not identified any concerns: You don't have any concerns – why do you think things are running so well in the catchment?

9	Have you ever been involved in any action to change something going on in the catchment? [can you tell me some specific incident/project?, was it easy? would you do it again?]
	  If yes…tell me about that experience…
	  If no…tell me if there is anything you can think of that puts you off doing that

Networks	
10	Where or who would you go to, to address an issue of concern about the well-being of the physical environment of the Motueka catchment?

11	Have you ever been in contact with these people?
	  If yes…tell me about that experience
	  If no…why is this?

12	Where or who would you go to, to address an issue of concern about the well-being of the social environment of the Motueka catchment?

13	Have you ever been in contact with these people?
	  If yes…tell me about that experience
	  If no…why is this?

Knowledge	
14	How good do you think your knowledge of the Motueka catchment is? Where does this knowledge come from?
15	Do you have any questions about how things (physical or social) 'work' in the Motueka catchment? (i.e. are there things you would like to know more about, curious about?)
16	Who do you think of as the people who might know the answers to these questions?

17	Have you ever been in contact with these people?
	  If yes…tell me about that experience
	  If no…why is this?

18	Is there anything you can suggest that would enable people to take greater care and responsibility for their social and physical environment?
19	Could you think of anything that would further put into action/practice the care and responsibility that you feel?
Any other comments about care and responsibility of the Motueka catchment you would like to make?	
End of interview	

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Appendix 11 Watershed Talk follow-up interview questions

Preamble…*we asked some questions first time round; we're interested to know about shifts in any of these.*	
Care and responsibility	
1	In our first interviews we asked you some questions about what evidence you saw of care and responsibility in the Motueka catchment? Since taking part in the Watershed Talk project have any of these views changed?
2	Anything changed about what you think you do? (i.e. do you now think your actions are more significant or less significant than previously?)
3	Anything changed about what you think others do?
4	Would you view any of the pictures you presented differently now?
5	Have your thoughts on what issues you feel are important in the catchment changed?
Networks and resources	
6	We also asked some questions about who you might go to about issues of concern in the Motueka catchment. Since taking part in Watershed Talk have you any new thoughts about who these groups or people might be?
Environmental and social issues	
7	Were they people you already knew but didn't think of as a resource until now?
8	Do you regard any of these people or groups in a different light now? (e.g. other community members/groups, TDC employees – scientists – us included)
Knowledge Given the range and nature of issues concerned with the well-being of the catchment that were raised in the meeting discussions:	
9	How do feel about your knowledge of the Motueka catchment?
10	Do you think that you and or the wider community have the kind of information and knowledge needed to address these issues?
11	What are your thoughts about how a community might go about equipping itself with the information it needs to solve problems?
Taking action In our first interview we discussed what experiences you had of taking action to change something going on in the catchment.	
12	What are your thoughts about the barriers and opportunities to taking action?
Overall	
13	Since your involvement in the Watershed Talk project are there any new ideas you have about how you and a community might best prepare itself to deal with issues that are important?
14	Having taken part in the Watershed Talk project would you be prepared to be involved in anything else like this again? [either answer…]…Why?
15	Did you think this project could have gone further in any way? If yes. In what way?
16	Do you think your involvement in the Watershed Talk project has had any downstream effects for you in terms of how you interact with others (or plans you might have to interact with others)?
Engaging in the project We went through a number of stages; first phone contact, sending out thank you Travelling River catalogues with the Watershed Talk long card (outlining what the essence of the project was about), confirming emails/phone calls for appointments, one-on-one interview meetings and this last interview.	
17	We want to get a sense of how our ways of engaging and communicating with you have made it easier, or made you feel willing to be part of this project – could you comment on this?
End of interview	

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Appendix 12 Watershed Talk post-workshop evaluation questionnaire

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Both meetings had a theme of fostering dialogue to improve understanding, and connection between participants. As a reminder:

The purpose of Meeting 1 was to uncover the different ways care and responsibility for the Motueka catchment are understood and expressed by different people.
The purpose of Meeting 2 was to explore what is needed to build resilience in communities in the face of big changes, using examples of major issues identified by participants in Meeting 1.

1. Which group were you in?
      Ngatimoti   Tapawera

2. What worked well about the workshops? (Identify workshop 1 and workshop 2 in your comments)

3. What elements did not work so well? (Identify workshop 1 and workshop 2 in your comments)

4. What surprises, if any, were there?

5. When you think about how people engaged in Meeting 1, how would you rate the quality of the dialogue that took place?
      Poor   Fair   Good   Excellent

6. When you think about how people engaged in Meeting 2, how would you rate the quality of the dialogue that took place?
      Poor   Fair   Good   Excellent

7. Do you have any comments on how the meetings went? (e.g. your reasons for your answers to questions 5 and 6)

8. How easy was it for you to undertake the pre-meeting tasks?
      Not possible to do   Difficult, but I could fit it in   Easy

9. Do you have any comments on the pre-meeting tasks? (e.g. your reasons for your answer in question 7, how well explained the tasks were, or how useful you considered them to the subsequent meetings)

10. Can you tell us one new thing you learnt or a new insight you gained from taking part in this project?

End of evaluation

Appendix 13 Summary of case story findings

Case story	Key elements of the social learning challenge	Type of evaluation intervention	Important outcomes/observations
Case 1: **Whaingaroa Catchment Management Programme** **Main programme proponents**: Environment Waikato & Landcare Research **Aims:** Establish a platform for multi-stakeholder collaboration in the Whaingaroa catchment in the Waikato Region Provide a new approach to local planning and management that would work with existing institutional arrangements	Programme was based on a predesigned model for community-based management, but lacked capacity to adjust to differences imposed by the new context in which it was applied. Programme needs: ■ Capacity to create a platform to integrate multiple viewpoints and knowledge over causes and solutions to local environmental problems. ■ Understanding of important social dynamics which affect community credibility and capacity ■ A way to manage the intersection between a new form of community planning and existing institutional arrangements ■ Shared sense of programme purpose and logic among key stakeholders and programme proponents ■ A way of monitoring progress and responding to signals that pointed to the divergence from the predetermined model for the initiative	A participatory goals-free evaluation took place 2.5 years into the programme. The aims were to: ■ Meet accountability requirements of the programme's funders and managers ■ Provide participants with an opportunity to learn about the programme ■ Confirm the stakeholder group in their achievements – highlighting what worked for them, as well as what was problematic ■ Generate an overview of the structural elements of the programme and a review of stakeholder roles and relationships	■ There was no negotiation over the evaluation but some freedom of methodology. ■ Participants were empowered through gaining access to information about the programme. ■ The evaluation had status as a commissioned work. ■ The evaluator acts as a filter, i.e. can't assume knowledge is gained just because the evaluator has gained it. ■ An evaluation at the end of a programme has limited ability to influence the social learning capacity of a programme.

Case story	Key elements of the social learning challenge	Type of evaluation intervention	Important outcomes/observations
Case 2: **Target Zero waste minimisation programme** **Main programme proponents:** Waste Minimisation Unit, Christchurch City Council **Aims:** Train teams of people from manufacturing organisations to implement cleaner production/resource use efficiency measures within their companies	The programme had undeclared ambitions for company teams to deliver on organisational change, and consequently had not incorporated training to facilitate this or considered other factors that would support this role. Programme needs: ▪ Way to support the effective functioning of the Target Zero teams ▪ Match technical learning(e.g. waste analysis) with process learning (how to collectively and creatively problem solve) ▪ Enable participants to move beyond initial assumptions about problems and causes (double-loop learning) ▪ Increased theoretical understanding of organisations as social systems and how teams can support organisational change	The evaluation had participatory, developmental and theory-based elements to it. There were four phases: 1. A review of literature on groups and organisational change was used to generate a checklist of key factors for successful teams. 2. The checklist was used to review historical performance of teams involved in the programme and 3. As a mechanism to support the ongoing development of teams currently involved in the programme. 4. Efforts were made to build the capacity of the programme staff to use the evaluation approach as a development tool.	▪ CCC support gave the evaluation official status. ▪ It was possible to negotiate a different role for the evaluation because of the openness of the WMU to using evaluation for learning and development. ▪ The checklist approach relied on active facilitation that was more effective in situations where there was an existing organisational preference for learning and development ▪ The evaluation approach proved effective at helping teams learn about group dynamics and self-motivated problem solving ▪ The checklist was a useful way to introduce theory and ideas in a palatable and immediately useful form. ▪ The evaluation approach was also useful at matching technical learning with process learning. ▪ Imbedding such an approach in programmes without existing capacity for facilitation and reflective learning is not easy.

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Case story	Key elements of the social learning challenge	Type of evaluation intervention	Important outcomes/observations
Case 3: **The Integrated Catchment Management Programme** *Frameworks for seeing across complex social systems* **Main programme proponents**: Landcare Research, Tasman District Council, Cawthron Institute; other research institutes and local management agencies **Aims:** Transdisciplinary research to improve management of land, freshwater, and coastal environments in catchments with interacting, and potentially conflicting land uses, with a focus on the Mouteka catchment in the Nelson Region	The ICM programme's task has been to provide new information about the interaction of various biophysical processes and to generate knowledge about how integrated environmental management can operate and to contribute directly to changes within the Mouteka catchment. Programme needs: 1. Ability to manage multiple interests and provide platforms for multi-party critical reflection 2. New ideas about knowledge production – to generate both content and process knowledge on integrated catchment management as well as ways to articulate problems, and assemble and interpret information at a system-wide scale 3. Relationships with key management agencies that provide for structurally open and flexible institutional arrangements around decision-making, enabling real-time experiment and learning 4. The ability to articulate a sense of direction for the programme as a whole, and to understand its progress, functioning and relationships with the wider context of the environmental management of the Motueka catchment.	The social spaces framework evaluation was designed to support the programme participants understanding and action around communication and engagement needs of ICM. It involved three stages: (i) Interviews with programme participants, out of which: (ii) a framework was developed which identified different social spaces across the programme with different goals for communication and norms of interaction. (iii) It was used in a participatory exercise with programme participants to enable them to assess the value of their actions and plan for future needs. A comparison is made with an ISKM-based-checklist evaluation exercise used in the IRAP programme. There was no established formal mandate for the evaluation in either programme.	▪ The framework exercise was successful in enabling programme participants to make sense of the complex social interaction demands of a transdisciplinary research programme. ▪ It was a useful way of introducing theory and ideas in a palatable and immediately useful form. ▪ The participatory evaluation exercise in the ICM programme was more successful than in the IRAP programme, possible reasons for this include: 1. ICM social spaces framework was derived from participants own observations and had direct meaning for them. 2. The facilitators role in the ICM programme was better established than in IRAP. 3. Facilitation on the social spaces framework was directed towards 'appreciative inquiry' rather than critical reflection. 4. IRAP group had a large number of new members, and had little group trust established.

Case story	Key elements of the social learning challenge	Type of evaluation intervention	Important outcomes/observations
Case 4: **The Integrated Catchment Management Programme** *Platforms for dialogue and reflection: The Watershed Talk project* **Main programme proponent**: Landcare Research **Aims:** Watershed Talk was an action-research sub-project within the ICM research programme which designed and trialled a platform for multi-stakeholder dialogue, information sharing and collaborative learning —meeting needs of the ICM programme for capacity development in this area.	The Watershed Talk project was an opportunity to bring together diverse knowledge sources on local Motueka catchment issues. It was also a chance to develop a platform for dialogue, learning and systems thinking that had a clearly articulated theory of learning at its basis, and which was addressing specific social learning challenges, i.e. (i) barriers to learning, (ii) too-early / a priori problem definition, (iii) managing open-ended processes. The challenges of methodology for the project were to develop means to build trust, and self-efficacy; mitigate the effect of preconceptions, about roles, knowledge and contributions amongst participants; introduce a systems thinking approach to addressing complex issues; all within a limited time frame (6 months), as well as leave a legacy for participants of enhanced skills in collective problem solving.	Reflection and structured forms of critique and analysis took place over the entire project. These included: ■ Interviews designed to promote reflection at the beginning and end of the project ■ Use of photography to promote individual reflection, and contribute to enhanced dialogue, and information exchange between participants ■ Facilitation approaches including use of a soft-systems based approach to unpacking complex problems ■ Formal participant feedback on the workshops and the project as whole ■ The project team's own reflection practice to aid project development P & D evaluation was so integral to the design of Watershed Talk as a platform for learning, that Watershed Talk could be regarded as a participatory evaluation exercise with a theoretical basis in social learning.	■ Attention to physical and process aspects of the platform yielded dividends in participant engagement and shifts in content and process learning. ■ Notable successes were achieved with a number of creative devices (e.g. photography) used to support individual and group reflection and learning. ■ Watershed Talk contrasts more conventional problem solving / community planning processes by focusing foremost on ways of working together rather than specific problems. Outcomes suggest communities may have greater tolerance for this when the processes used are inclusive, and vital. ■ Running Watershed Talk outside existing social & institutional environmental planning and management meant it was a single intervention unsupported by previous or subsequent activity. ■ The project highlighted the importance of working with different disciplines in project teams.

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