

**CONSIDERING POLICY IMPLEMENTATION ALONGSIDE POLICY
FORMULATION IN DRINKING WATER MANAGEMENT IN NEW ZEALAND AND
FOR PACIFIC ISLANDS**

Giving Voice to Local Knowledge

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ABSTRACT

This paper reflects on the experiences of the authors in facilitating the involvement of small, rural, and isolated communities in the development of national drinking water standards for New Zealand. The key message we want to give in this paper is the value of involving the communities that are expected to implement policies or plans as these are formulated, to avoid the situation of policies or plans that cannot or will not be implemented, or that result in unintentional and undesirable side effects (such as widening the gap between drinking water supplies that can and cannot demonstrate safe drinking water).

We use the Theory of Constraints' Six Layers of Resistance model (Smith 2000; Mabin *et al.*, 2001) to show how community participants worked through natural human reaction (the layers). Participants moved from initial resentment and uncertainty about the possible local implications of the proposed revision of the standards and proposed amendments to legislation, to contributing to shaping of standards compliance criteria that could achieve the common outcome of providing safe drinking water without imposing seemingly unnecessary and unattainable changes in practice.

We conclude by discussing how the lessons can be applied more generally to the development of regional or national policies or local action plans, and across drinking water, wastewater, and sustainable water resources management.

KEYWORDS

Policy formulation and implementation, working at the interface, workshop process, theory of constraints

INTRODUCTION

The UN Millennium Summit in 2000 agreed to a number of Millennium Development Goals (MDG), including a target to halve by 2015 the proportion of people without access to safe drinking water. This target and the actions required to achieve it, although having a focus on developing countries, are equally applicable to developed countries. The development and implementation of drinking water policy that is acceptable and effective for large and small

communities, in developed and developing countries, is an international action that can be linked to the MDG for drinking water. Receiving particular attention are the needs and issues of drinking water supplies for small, rural, and isolated communities. In the USA, the Environmental Protection Agency (EPA) receives advice from the National Drinking Water Advisory Council on the challenges faced by small systems in meeting the public health protection objectives of the Safe Drinking Water Act (EPA 2006). In 2005, the World Health Organization (WHO) established a program on the development of drinking water quality management tools for rural and remote communities. Indeed, the EPA and WHO, and other agencies have recently formed an alliance of programs and initiatives dedicated to reducing the incidence of water-related disease worldwide - *The Partnership to Health through Water* (WHO 2006).

In New Zealand, approximately 86.5 per cent of the population is served by 75 drinking water supplies, most of which comply with the *Drinking-Water Standards for New Zealand:2000*, DWSNZ^a (MoH 2000, 2005a). The remaining 13.5 per cent of the population is covered by close to 2,000 small supplies each of which serves fewer than 5,000 people. Many of these small supplies do not comply with the DWSNZ. The policy maker for drinking water quality in New Zealand, the Ministry of Health (MoH) has developed and is implementing a program to achieve its goal to improve access to safe drinking water by 2008 (MoH 2001a). To achieve this goal, support for small, rural, and isolated communities is required, given that small community supplies cover a significant portion of the population.

There is little doubt that the MoH in New Zealand, water suppliers, and their communities agree with the desirability of providing safe drinking water. However, given a lack of local evidence of people becoming ill, many small communities remain unconvinced that their drinking water is unsafe. The significance of these differences in meaning and measures of safe drinking water became apparent to both the MoH and small community suppliers as they contemplated the possible implications of the then proposed revisions to the DWSNZ (MoH 2005b), and proposed amendments to legislation aimed at protecting the public against the incidence of water-borne illness through a public health risk management-based approach.

In New Zealand, the MoH, supported by the Institute of Environmental Scientific Research Limited (ESR), has introduced a number of drinking water quality management tools, including a comprehensive information management system (Water Information New Zealand, WINZ^b) that supports countrywide and local management decisions, and a quality assurance framework and resources for public health risk management planning (PHRMP, MoH 2001b, 2005c). ESR is a Crown Research Institute, whose shareholders are Ministers of the Crown (government). Its purpose is to undertake research for the benefit of New Zealand, with an important principle of operation whereby the Institute demonstrates a sense of social responsibility through taking into account the interests of the community in which it operates, and by endeavouring to accommodate or encourage those interests when able to do so. In this position, ESR has dual accountabilities to both the Crown and the public.

Using drinking water in New Zealand as an example of ESR's role at the interface between policy formulation and implementation - between central government and local communities - we provide an overview and analysis of the involvement of small community suppliers in

formulating policy and ways to support policy implementation. Public consultation workshops around New Zealand were planned to enable small community supplier involvement. ESR played a key role in the design and facilitation of these workshops, and in providing information flow. These regional consultation workshops were designed to ascertain the factors that would impact on implementation of the proposed changes to standards and legislation. The advantage of having an agency, such as ESR that is outside the MoH – but closely involved with the proposed changes – is discussed.

The implications of the above analysis for working with other small island states in the Pacific provides the focus for the second part of this paper, illustrated by vignettes of two Pacific Island interventions aimed at improving drinking water policy and practice. We argue that the lessons learned do not only apply to the provision of safe drinking water, but also to developing solutions to waste water problems, and to sustainability more generally.

GIVING VOICE TO LOCAL KNOWLEDGE

Public consultation workshops were a significant component of small community involvement in formulating changes to the drinking water standards and proposed amendments to the legislation, and in deciding what would be required to support implementation of the changes. The workshops were designed to promote the constructive exchange of information by establishing common ground from which everyone could move towards policy that could and would be implemented.

In this section we describe and discuss the workshop design, and the importance and ability to adapt workshop process and content in order to meet the dual accountabilities of ESR - the Crown and the public.

The Marlborough Workshop

The first workshop in Marlborough (an area at the top of the South Island of New Zealand with numerous small drinking water supplies) was an ‘informal’ workshop, arranged by the local public health agency. This workshop was designed on the understanding that those running small community supplies in the area would welcome the opportunity to find out what changes to standards and legislation were in the pipeline. It was also an opportunity to share more detail about what would be required to adopt a public health risk management plan (PHRMP) approach to drinking water quality management, including the documentation that would be required. After the introductions, there was a somewhat angry outburst by several of the participants who clearly resented ‘being told what to do’. The reasons for participants’ resentment was summarized as follows:

- Managing their supplies was common sense and there was no need to formalize what they were doing; they were happy with what they were doing.
- They were volunteers - busy people - and therefore should not be subject to impositions from above.

- Community members knew what to do when there was a problem, and there was no need to document this.
- Responsibility (for ensuring safe water) was seen to lie with both the manager/caretaker and individual households.

Understanding each other: There were three major factors that enabled the Marlborough workshop to both change direction of, *and* provide opportunities for delivering the message of change, as well as constructively gather the messages small suppliers wanted taken back to the MoH. The first ‘event’ was an intervention by a participant who made it clear that he both wanted and needed to know about the proposed changes because of the nature (and ownership) of the supply. Secondly, it was obvious from the initial angry outburst that the ESR team was seen as an extension of the MoH, and it was essential to clarify our position, not as representing the MoH, but as a provider of services to the MoH. We clarified that much of work relating to the proposed changes and talking with small community suppliers was to take back messages for the MoH that would enable effective policy formulation and implementation. “What’s the point in developing policy that can’t and won’t be implemented?”, we said. Finally, the focus of the workshop shifted from provision of information and what this would mean for those present, to the suppliers’ current practices and experiences and how they might convey what they do to others. What they would convey to others was a different way to get them thinking about how they might begin to develop a PHRMP.

Flexible processes: Building on this new appreciation of each other (the ESR team and the small suppliers), new focusing questions were asked:

- What do you do to manage your supply?
- Who does it, how often, and why do you do it?
- For each action/thing you do what could be recorded that would be of value to you/your community?

Taking the lead from participants: It was serendipitous that within the room there was a small group of ‘supporters’ (wives and friends of the suppliers), and this group was asked to determine what information they might require in order to take over the running of the supply. The following excerpt from the proceedings illustrates the usefulness of this group. One supplier identified to the others the need to change filters as an action that could be part of a PHRMP for his supply. The resulting question to him from a member of the ‘supporter’s group’ was “how often?” “Frequently” was his response. “How often is frequently?” As this question-answer exchange continued it became clear to participants that their taken-for-granted knowledge of operating small supplies was *not* accessible or available to others, and that maybe it *was* necessary to document how the supply worked.

At the end of the Marlborough workshop, feedback from participants was largely positive, with interaction with other water suppliers seen as very useful, and the initial resistance to the proposed changes – and the messengers - had been channelled into an opportunity (based on their experiences) rather than persisting as a problem (of imposition).

Marlborough postscript: A year after this workshop, the ‘ringleader’ of the dissent attended another workshop on PHRMPs, this time supporting training of local public health agency staff. Having recognized one of the authors as the facilitator of both the regional and Marlborough consultation workshops, he introduced himself by saying he had been to several of these workshops and identified himself as the one who had triggered the ‘reaction’ in Marlborough. He also identified himself as the one who had stood up at the end of one of these later workshops to congratulate and thank the facilitator for the way she had led the meeting. Now, he has put into practice what he learned about PHRMPs from these workshops and is proudly promoting the concept around his area with requests from other small water suppliers for his assistance. He said the MoH was to be congratulated; this initiative was the best he had experienced with a central government agency actually asking questions and listening to answers from water suppliers.

It would be easy to say that the need to adapt workshops when faced with anger and frustration from participants is commonsense, but in adapting the design and content of the workshop, the dynamics within the room were also changed and the authors felt it would be useful to try to understand the relationship between these. Discussion with colleagues identified the theory of constraints as a potentially useful way to both describe and explain the workshop experience, and provide learning that could inform future workshop design and execution.

Applying the Theory of Constraints

It was clear following the Marlborough workshop that considerable thought and planning would be required for the regional workshops (discussed in the next section) to meet the needs of the MoH and to meet the needs of participants – those responsible for small community supplies across rural New Zealand. What helped in this process was a careful analysis of the Marlborough workshop to identify why people were resistant to change and how adapting the workshop in order to harness and redirect that (negative) energy of participants enabled learning that could be put into practice for the regional consultation workshops. The Theory of Constraints’ Six Layers of Resistance model (Smith 2000; Mabin *et al.* 2001) provided a useful tool to understand the links between participants’ initial responses and consequent adaptation of the workshop. It must be emphasized that the theory of constraints did not inform the Marlborough workshop processes but was employed afterwards to understand and name what happened in the workshop.

The theory of constraints is most often discussed in the literature on change management, and the key message is the need to harness resistance to change, rather than seek to reduce or manage resistance. Resistance, in this sense, is seen as positive. “Central to this methodology is an appreciation of resistance as a necessary and positive element in any change process” (Mabin *et al.* 2001), and Mabin identifies multiple layers of resistance to change. A lack of consensus on the problem is the first layer identified. It was clear in all the workshops that there was no consensus between the policy-makers and those responsible for small supplies, both in terms of defining the problem (evidence of water-borne illnesses) and the proposed solutions.

The other layers of resistance include:

- Having no control over the outcome – it's out of our hands.
- The proposed solutions will not deliver the outcomes.
- The proposed solution will create new problems (yes, but...).
- There are too many obstacles for implementation.
- People whose support we need will not buy into the idea (Mabin *et al* 2001).

Some of the causes of these layers include: fear of the unknown, loss of control, loss of face, and loss of competency – all of which were evident in both the Marlborough and regional consultation workshops. In the regional workshops, a number of people articulated that they would like the choice of doing what feels right rather than being told what to do, and a number of people expressed concerns that their experience and knowledge would not be recognized. Other examples of resistance included claims that there would not be enough – or the right kind of – support for them to implement changes, and that new problems would emerge, such as a community having to pay for someone to run the supply rather than rely on community volunteers.

Mabin *et al* (2001) state that to harness the positive uses of resistance, resistance needs to be seen as positive with consequent attention paid to the reasons and causes of resistance rather than trying to manage resistance in order to meet the requirements of the proponents of change (policy-makers). This shift occurred in the Marlborough workshop when attention moved from what developing a PHRMP as a requirement of the MoH would entail, to participants' experiences and practices relating to their own supply that they could write down for others in their communities.

Planning and Carrying Out Regional Workshops

Recognizing the likelihood of resistance to proposed changes, we needed to design the workshops in a way that would enable participants' knowledge of their own supplies to form the basis of group discussions with a gradual broadening out to include some of the messages in the earlier presentations. These two components were seen as providing the impetus for participants to then identify what assistance they thought they would need. Thus, the questions that participants would be given were based on exploiting and elevating perceived constraints through subordinating other activities. Mabin *et al* (2001) draw attention to the observations of Goldratt (1991) who commented that managers attribute failure of proposed change as the fault of the implementers, whereas failure is more likely to stem from managers' inattention to the implementers and consequent adaptation of the proposed change. Thus, it is important to provide a process that enables participants to provide relevant and constructive feedback to policy makers, not to alienate participants through attempts to placate or reduce conflict which could be interpreted as disempowering participants.

The central aims of these regional workshops were to:

- Inform managers/operators of small community supplies of the proposed revisions to the DWSNZ and the proposed amendments to legislation.
- Provide fora for feedback from participants on what these changes would mean for them.
- Identify what kind of assistance they might need to implement changes.

The design of the workshop process was also informed by the expectation that many of those attending would be unfamiliar with the requirements of the existing or revised standards and the proposed changes to the legislation. Additionally, media reports that – related to earlier consultation meetings with the larger urban suppliers – could have fuelled fears that changes would require large capital investment that would be unaffordable for small communities. The workshops, therefore, commenced with presentations to provide relevant information about the proposed changes. After the presentations participants worked in small groups, rather than following the usual question-and-answer format of public meetings, which run the risk of being dominated by one or two people. The first question posed to the groups reflects the first two questions used in the Marlborough workshop in that they were asked to articulate what they were currently doing to ensure safe drinking water in order to think through what the proposed changes would mean for them. To progress their thinking beyond the past and present they were then asked to consider how they could improve their supply and what was hindering that change. This focus enabled the participants to tease out steps for improvements and identify what assistance would be required.

The aim of these questions was not to provide a consensual view (within the small groups), but to elucidate the diversity of practices and possibilities. This process served two purposes: participants were able to learn from each other; and the policy makers were provided with recommendations outlining the most commonly identified practices and needs. The design of the meeting process could therefore manage the tension between participants being given enough information to be able to participate in discussion without the feeling of being **told** these are the changes.

Layers of resistance: Like the Marlborough workshop, there was initial resistance to change. This was voiced in terms of lack of evidence that people were becoming ill from drinking water; that existing legislation already existed (for example, the Food Act, Occupational Health and Safety Act, Building Act); and that potential improvements to, and management of, supplies under the amended legislation could lead to a lack of community ‘ownership’ of supplies which in turn would compromise implementation of the proposed changes. Examples given included the possible need to employ a suitably trained operator, or treatment upgrades and a monitoring regime that was best administered by a local authority rather than the community.

Learning from local experiences: What was evident from the workshops was that participants were already employing a risk management approach to the provision of safe drinking water, but that they could always learn more and improve on current practices. The paradox identified here was how do they learn what they don’t know they need to learn? In this context, the workshops provided a useful learning environment for small community suppliers, where participants

shared, discussed and learned from each other as well as from those with the responsibility for carrying out this substantial public consultation exercise. This learning was, in itself, an intervention that enabled some suppliers to identify where they could improve on their current practices.

I thought I was doing a pretty good job, but I have learned a few things that I'm going to take back to my supply. [Small community]

Another tension that emerged was the difference between the nationally relevant goal of improved provision of safe drinking water and the local perceptions that there was neither room for improvement, nor a desire – or need - to improve. Not only did the workshops enable constructive discussion around this national – local tension, but they also provided a space for discussion around local issues that were potentially inflammatory, for example, tensions between local government and communities in defining what improvements were needed and how they would be financed.

The central successes of the workshop processes were: provision of information in ways that stimulated constructive discussion, and providing a space in which participants could learn from each other – this was perhaps the most valued outcome for participants. Participants felt valued for their experience and expertise in operating or managing a small supply, and for the contribution they could make to legislative change and consequent pathways for implementation (ie. the revisions to the DWSNZ and options for assistance).

While the processes adopted for this regional consultation did not reflect the common understanding or expectations of public meetings, at the conclusion of the meetings participants stated that this was the way in which consultation *should* be done; where central government identifies the desired outcome, then asks those who will be responsible in practice for meeting that outcome how it can be achieved. The success of the regional workshops was built on the theory of constraints analysis of the Marlborough workshop experiences, and a subsequent workshop design that incorporated participants' own experiences and practices as a key component of the information exchange and discussion. While the workshop facilitator did not actively employ the step-by-step method as suggested by the layers of resistance model, it was clear that the facilitation illustrated a leadership model that valued communication as enabling joint or convergent understanding “not only of the ‘big picture’ but also of the concerns of individuals that are acknowledged as part of the process” (of change) (Mabin *et al* 2001, p186).

Reflecting on the contribution of process to policy development and implementation

The main points that we want to stress in this paper so far are:

- Policy formulation and implementation requirements need to be considered in tandem with the latter feeding into the development of policy and/or amendments to legislation.
- The importance of process – ‘the how’ – employed in public workshops to enable productive exchange of information that seeks to establish common ground from which both parties can move forward.

Perhaps one of the key factors in the fit between policy formulation/legislative change and implementation is the extent to which ESR, as a service provider, sits at the interface of policy formulation and implementation. In relation to the changes to the standards and the proposed amendments to legislation, a senior advisor in the MoH who has driven and crafted the changes, has effectively enabled consultation about and development of implementation pathways at the same time as developing changes to the law and policy. This process in itself has not been a linear approach where policy is developed then implementation is sought. The co-development of policy and implementation also mirrors the principles underlying the theory of constraints approach, whereby understanding resistance, and acknowledging and learning from present practices, provides a platform from which better integration of policy development and implementation can be attained, as well as providing an opportunity for workshop participants to learn from each other. We would argue that workshop design and methods that enable a fit between national or international goals and local experiences and practices are relevant to the sustainability goals enshrined in the Rio Declaration (1992), and thus have a wider applicability than just national contexts.

Retaining the lens of achieving safe drinking water, the next section of the paper demonstrates how the analysis and learning associated with design and execution for the regional workshops contributed to developing initiatives in the Pacific.

EXTENDING THE LEARNING

There is a degree of resonance of the drinking water policy development approach, the workshop processes (and content), and the theory of constraints (focusing on resistance to change), with the literature relating to the provision of aid for developing countries. For example, in the development programmes to which New Zealand and Australia contribute in the Pacific, there has been a shift in focus from a donor-recipient approach to a partnership approach. This partnership approach is represented in numerous policy documents. For example, NZAID's (2002) *Towards a Strategy for the Pacific Islands Region* states that: "A fundamental principle of NZAID is that development should be a country-led, participatory and inclusive process based on partnership and local empowerment", and AusAID in its publication *Making Every Drop Count* (2003), stresses the importance of "ensuring active community participation in program design to ensure new water facilities meet community demands and receive local support". Sharma's (1997) paper, in which a number of case studies of participatory watershed management in Asia are analysed, stresses the importance of people's ownership of successful programmes and their participation in decision-making, making the point that those involved in such initiatives need to learn how to develop and apply methods and practices for participatory, rather than top-down approaches.

Major Global Changes Underpinning Partnership Models

There are four major global changes, or 'social movements' that have contributed to the partnership and participation approaches to provision of aid. One example is the resurgence of ethnic and cultural identities as resistance to 'homogenization of culture' through free trade

agreements and the opening up of national borders (Patman and Rudd 2005; Stewart-Harawira 2005). In New Zealand, Crown recognition of the Treaty of Waitangi has been instrumental in moving the country towards a bicultural partnership, and in establishing the values (and consequent actions) of New Zealand's aid programmes.

Another influential 'social movement' is the shift from representative to participative or deliberative democracy, with an accompanying decentralization of policy and decision-making (Gutmann and Thompson 2004), recognising the need for ongoing consultation and involvement of citizens.

Thirdly, there is an increasing amount of literature about the science-society interface and the issue of trust (Dierkes & von Grote 2000, Pereira *et al* 2003, Winstanley *et al* 2005). The implications of this 'social movement' are that scientific and technical solutions that are applicable in one country – or in one locality – are not necessarily applicable in another, and that there needs to be a fit between technical solutions and local contexts that engenders relationships of trust.

Another 'driver' of more participatory initiatives and programmes is the dominance of sustainability discussion. Sustainable development and/or management recognises that community ownership of change to improve human and environmental wellbeing is a prerequisite for sustainable outcomes (United Nations, 1992).

While the 'social movements' outlined above contribute to our knowledge and understanding of the need to 'do things differently', both in national and international contexts, the 'how' question is not addressed to the same extent. Therefore, paying attention to the fit between process and context of workshops, training sessions or meetings, and developing methods that are adaptable – or a range of methods that can adapt to different contexts – is important.

This next section provides an illustrative example of the points we are making in this paper, in particular the importance of process – 'the how' to interface policy formulation and implementation, national or international goals and local experience.

Jan's story: Developing a Framework for Action on Drinking Water Quality and Health in Pacific Island Countries

I participated in a Pacific regional workshop as an 'Observer', to develop a framework for action on drinking water quality and health, with no affiliation to the lead agency or mandate to represent participating countries. However, due to my previous involvement in related Pacific regional 'Frameworks for Action' and my technical and practical experiences in New Zealand, I found myself assimilated into the lead team. In this new role, I was obligated to focus on the outputs envisaged by the lead agency - a ratified draft Regional Framework for Action, and also contribute to the process of how the participants were going to get there – the 'inputs'. The lead agency intended the workshop process to involve group work (6-8 country representatives per group) supported by technical sessions led by invited experts.

The first group task was to review individual country needs and issues relating to the provision of safe drinking water, and look for those that were shared. No instructions of how to do this were given to the group or its facilitator. Furthermore, the appointment of a group member as chair made it unclear who was leading – the chair or the facilitator? Over the tea break the chair, the facilitator and myself discussed and agreed to a participative and hands-on process for our group.

Two memorable moments took place during this session, both spontaneous and both demonstrating participant ownership of process, made possible because the process design encouraged engagement between participants. The first was when a team of participants from three different countries broke into Pidgin English to discuss and agree on summary statements of needs and issues. Neither the facilitator nor myself (the original ‘owners’ of the process) had any idea what they were talking about – nor did it matter. The participants had taken ownership of the process and adapted it to overcome a barrier – language. The second memorable moment happened shortly after when a lone participant who had just completed the task provided instructions to the next team, again in Pidgin English. The facilitator and myself again sat back and watched the group complete the session on their own and well ahead of the other groups, who seemed to have followed less participative processes.

As the workshop progressed and time was running out, there was some anxiety for the lead agency about how to get to the desired output. I offered a way forward that built on participant’s input so far and maintained the energy and creativity of the whole group. Furthermore, the participants would likely ratify the output from the process because they ‘owned’ it, and the output was in a form that could be directly inserted into the Regional Framework for Action. At the high level of framework recommendations, the participants had agreed earlier in the workshop to common needs and constraints. So, the role for the participants in moving towards the Regional Framework for Action was to define how these needs could be met and constraints overcome, through actions drawn from their own experiences. There was full participant engagement in this process, and 20+ sheets of brainstorming and ordering of actions, one for each recommendation, emerged.

In this story I have illustrated the value of a workshop facilitator occupying the space between the lead agency and participants, and the benefits of transferring ownership of the process to participants. I have also illustrated the value of simultaneously considering the content (what), the context (why and for whom) and the process (how).

Implications for Establishing New Partnerships to Support Policy Implementation

Two Pacific regional agencies, South Pacific Applied Geosciences Commission (SOPAC) and WHO, and recently the New Zealand MoH, have developed a harmonized suite of drinking water quality initiatives in the Pacific. New Zealand’s contribution involves advisors who can deliver specialised training and technical support to the Pacific-led programmes, drawing from their drinking water policy formulation and implementation experiences in New Zealand, particularly those relating to small, isolated and rural communities. There is an expectation the assistance

will follow the development principles of country-led, participatory and inclusive processes based on partnership and local empowerment (NZAID 2002)

Specialised training and technical support in water safety planning (WSP, known as PHRMP in New Zealand) in four pilot countries has been requested from New Zealand. In each pilot country a lead agency and a project steering committee has been established to oversee the programme and to plan a WSP training workshop. Although the New Zealand advisors are experienced in the content of WSP development, this is in the New Zealand context. The advisors will need to learn about and incorporate into the training the local context of each of the pilot countries, for example culture, governance and legislative structures, and organizational relationships. They will need to exercise skills in adapting workshop/training processes to suit these contexts, which will vary between pilot countries.

As we have described for ESR, the New Zealand advisors in this programme will be at an interface between policy formulation and implementation (the WSP programme spans both). They will also be at the interface between regional and local (country) needs and issues, as well as the needs and issues of the three partnership leaders. They will potentially feel pulled in conflicting directions, but through employing an adaptive process they should be able to promote constructive exchange of information that seeks to establish common ground from which everyone can move forward.

CONCLUSIONS

This paper has focused on the provision of safe drinking water as a lens through which to explore effective interaction between policy formulation and implementation. We have argued that public consultation exercises such as the workshops outlined in this paper need to recognise that communities are likely to be resistant to change, especially if it is perceived that it is being imposed from government agencies and/or that national goals do not appear relevant to local communities. Rather than seeing resistance as something to be overcome or managed, we have used the theory of constraints to demonstrate how resistance can be harnessed rather than repressed, and that resistance can provide the building blocks of a genuine participative process. This participative process includes exchange of information, with participants able to contribute information that is relevant to and defined by them.

We have argued that the approaches taken in the New Zealand regional workshops, and the partnership approach to aid provision in developing countries have principles in common, and that these are, to some extent, driven by the global changes outlined earlier. We have illustrated how applying the theory of constraints to a problematic workshop situation contributed to better design and processes for subsequent workshops and that this learning can be extended well beyond the New Zealand context, and is indeed relevant to a wider range of sustainable development or management issues other than the provision of safe drinking water.

Additionally, we have argued for the need to integrate policy formulation with implementation, that both formulation and implementation need to be considered in tandem, with issues relating to implementation contributing to changes in the formulation of policy, and that those who will

be expected to implement proposed change have fora in which they can receive and offer pertinent information. For example; as a result of the work carried out in the regional workshops small suppliers have been instrumental in adapting the standards and identifying what resources could be made available to support compliance with these.

We have suggested that, in the examples we have provided, workshop facilitation is more effective if carried out by a person - or agency – that sits between those developing policy and those who will have to implement policy, and that the relationship between the facilitator and the proponent of change is clarified and made explicit to workshop participants.

To sum up, the major conclusions of this paper are that:

- There is a role for the application of critical theoretical approaches to analysis of workshops that can contribute to improved workshop design and execution.
- Facilitation of workshops that sit at the interface of policy formulation and implementation may be best carried out by a person or agency that is relatively independent.
- Policy formulation and implementation need to be considered in tandem if the policy is to be successfully, and willingly implemented.
- Consultation processes need to manage the dual roles of conveying information to those who will have to implement changes as well as gathering and delivering responses back to the policy makers in a way that contributes to effective policy development.
- There needs to be an effective fit between the content and processes employed in consultation workshops.
- Developing understanding about and methods for effective workshop design and execution in one context, such as provision of safe drinking water, is relevant to other issues and policies, and especially for achieving sustainable outcomes.

ACKNOWLEDGMENTS

END NOTES

- a. The 2004 national picture of drinking water quality was that 74% of New Zealanders were served by community drinking water supplies that complied with the bacteriological criteria, and 26% received water whose bacteriological safety was not demonstrated, including 3% of the population who received water that was contaminated by animal and human waste (feces).
- b. WINZ can be accessed at www.drinkingwater.org.nz.

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The Partnership will implement actions for ecosystem-based management of oceanic fisheries at the regional, subregional and national levels. The Partnership will primarily support Pacific SIDS participation and meet their obligations outlined in regional and subregional agreements such as the Western and Central Pacific Fisheries Convention, the Nauru Agreement, among others. These agreements are geared towards the sustainable management of oceanic fisheries in the region and for countries to increase their benefits from these resources. Arrangements for Capacity-Building and Technology Transf