

Development of a Typology of Engagement in Natural Resource Management for the Western Catchments of South East Queensland

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Abstract

Over the past few years, regional governance has emerged as a modus operandi for community-based natural resource management (NRM) throughout Australia. One of the challenges for the actors involved in the new governance arrangements is the effective engagement of stakeholders in both NRM decision-making and the adoption of sustainable land use practices. This challenge is compounded in peri-urban areas along much of Australia's eastern seaboard, which are undergoing substantial land use and demographic changes (e.g. emergence of lifestyle small acreage blocks). The South East Queensland Western Catchments (SEQ WC) is one such area undergoing transition in terms of changes in land use and increase in population (which is expected almost double within the next 20 years).

To date, there has been limited rationale in the selection of an appropriate mix of engagement tools for stakeholder engagement in NRM in the SEQ WC. A collaborative research project involving CSIRO, the Queensland government and the SEQ WC regional body has been initiated to improve the capacity for sustained and effective engagement for NRM in SEQ WC. Of significance to the understanding required for matching appropriate and effective engagement tools has been the development of a typology of engagement. The typology provides a rational basis for the selection of engagement tools for maximum participation and impact. Furthermore, the methodology used to develop the typology has wide transferability to the design, conduct and assessment of engagement processes in other areas and fields.

Keywords

Engagement, communities, typology, peri-urban, urbanising landscapes

Context

The concept of regional governance has emerged as a planning and delivery mechanism for community-based natural resource management (NRM) throughout Australia. Commitment to regional forms of NRM funding delivery derives from the 1999–2000 federal review of the National Landcare Program (NLP) and the Natural Heritage Trust (NHT) outcomes (Lee 2004, p. 5). Landcare and NHT were then Australia's principal 'agri-environmental' programs (Lee 2004, p. 16). The landcare movement arose out of a joint initiative between the Victorian government and Victorian Farmers Federation to establish a community group response to land degradation. Due to joint lobbying by the Australian Conservation Foundation and the National Farmers Federation, this initiative was launched nationally as 'the Decade of Landcare' by the former prime minister Hawke in 1989. The Hawke government committed \$30 million of bipartisan funding a year for ten years in an effort to address land degradation. Landcare is now a national program run by the Department of Agriculture Fisheries and Forestry. It reached a plateau in 2000 at 4500 landholder groups

(40 per cent of farmers across Australia) undertaking conservation works on a voluntary basis <<http://www.nht.gov.au/nht1/programs/landcare/index.html>>; CEO of Landcare Australia Ltd 2005, pers. comm., 31 March). The NHT was set up as a competitive grant-based program in 1997 by the Howard government to help restore and conserve Australia's environment and natural resources, and has been a major source of funding for landcare groups <<http://www.nht.gov.au/index.html>>. The review of NLP and NHT in 2000 endorsed the devolution to, and empowerment of, regional communities, accepting voluntarism as the best way to deal with environmental degradation. However, a more strategic, science-based and evaluative framework for further funding was sought by state and federal government agencies.

Consequently, a National Action Plan for Salinity and Water Quality (NAP) was announced by Prime Minister Howard in 2000, which identified 21 priority regions on the basis of salinity hazard. NHT was extended by \$1 billion in 2001 for five more years, but aligned with new policy principles embedded in the NAP processes, which ordained that existing or newly established regional bodies would be assisted to produce regional NRM plans that specified resource condition targets. These plans will be accredited against national criteria and form the basis for funding, monitoring and evaluation of NRM (natural resource management) efforts by community groups (Lee 2004, p. 6). The NAP was progressed via bilateral agreements between the federal and each state/territory government. Formulating these agreements has taken four years (DAFF & DEH 2005, p. 5). The bilateral agreement between the Australian and Queensland governments was not finalised until June 2004 (Queensland Government 2004). At the community level, as the research discussed below makes clear, this flux in institutional design for the delivery of federal and state funding for NRM is experienced as confusing and disruptive. Policy shifts in conjunction with a competitive grant-based system, despite reliance on volunteerism, have meant that funding of community group efforts on the ground is piecemeal and discontinuous.

A second level of fluctuation that requires highlighting when considering NRM in South East Queensland (SEQ) is the peri-urban nature of this catchment. The population of many cities has been rapidly increasing since the 1980s. Almost 90 per cent of the Australian population now lives in urban and peri-urban areas, making Australia a highly urbanised country in global terms. Approximately 70 per cent of Australia's population growth between 1995 and 2000 was concentrated in the capital cities and the most significant increases of this growth occurred on the outskirts of these metropolitan regions. The term 'peri-urban' came into wide use during the 1980s and literally describes the urban landscape around a city's periphery. It is an interaction zone, most evident along Australia's eastern seaboard where people are engaged in either or both urban and rural activities. 'Lifestyle farmers' have become increasingly dominant in this landscape, and are defined as: "sub-commercial farmers, who typically derive the majority of their income from non-farming activities" (Hollier et al. 2003, p. 2). Hollier points out that lifestyle farmers manage almost 16.6 million hectares of Australian land. This new demographic is not well catered for either by agricultural extension services (Hollier et al. 2003) or well managed via traditional metropolitan planning mechanisms (Bunker and Houston 1992). These shortfalls are serious because this emergent demographic has the potential to impact severely on NRM:

"The Australian fringe is also characterised by the presence of natural resources that are either strategically important (eg., metropolitan water supplies), threatened (eg., remnant

native bushland and fauna habitat) or scarce (eg., 'prime' agricultural land), as well as fiercely contested heritage, landscape, and environmental amenity values." (Bunker 2003, p. 304).

South East Queensland's population has grown by almost one million people in the past twenty years. In response to the need to better manage this rapid population increase, a Draft Regional Plan has been formulated. The region defined as the Western Catchments of South East Queensland (WC SEQ) covers more than 12,000 square kilometres. It includes the Stanley, Upper Brisbane, Lockyer, Bremer and Mid Brisbane catchments. Over 164,000 people populate the region, including a major urban centre (Ipswich city) and several smaller towns. The region is dominated by rural landscapes, with grazing and cropping remaining major land uses. The lakes and dams of the western catchments provide the reticulated water for the residents of South East Queensland. The western catchments region provides important natural, recreational, cultural and economic resources to the wider SEQ region, so contributing to SEQ's environmental, social and economic wellbeing.

Past assumptions and historical rationale for understanding engagement

Since Arnstein's landmark paper 'A Ladder of Citizen Participation' of 1969 that pointed to the potential for polarisation between the engaged and their engagers if their contrasting interests were not acknowledged and negotiated, the links between participation approaches and their outcomes have been strengthened by numerous researchers (see for example Pretty 1994). Yet many researchers and community engagement practitioners approach engagement with a number of assumptions relating to the communities with whom they attempt to engage. One of these assumptions includes a perception of homogeneity within landholder groups — in terms of engagement motivations and preferences. In fact, traditional approaches to the engagement of the agricultural sector in Australia (e.g. extension) are founded in the assumption that effective engagement occurs through the use of traditional extension tools (e.g. field days), with the 'engager' in many cases determining the extension that is required (e.g. topic and approach). Obviously, extension theory has evolved dramatically over the past 20 years, but in practice remains largely engager-driven. These assumptions reflect an absence of training needs analyses conducted with NRM stakeholders. Researchers have established that off-farm income and other socio-economic factors (e.g. marital satisfaction) are important variables in the economic sustainability of agricultural enterprises (see for example Barr 2003), and several studies have identified a diversity of motivations for adoption of new practices (see for example Richards 1996), as well as ambivalence regarding such practices (see for example Neumann 1996). However, there has been little research regarding the drivers that will determine the success of an engagement process or whether landholder groups are homogenous or heterogenous (in terms of their motivation to be involved in an engagement process or preferences regarding the form that engagement process should take).

Compounding the complexity of engagement is the transition in many parts of the eastern seaboard of Australia, from rural to peri-urban landscapes. The transition in these emerging peri-urban landscapes represents enormous and rapid change (e.g. in terms of land use, holding sizes, demographics and pressure for development). Because of this pace and degree of change, enacting meaningful community engagement is especially challenging in these peri-urban environments. There are many 'tools' for community

engagement (see for example Coastal CRC 2003), but matching the most effective tool to the appropriate audience and outcome desired is currently poorly understood by both researchers and practitioners.

An alternative methodology

As the assumption of homogeneity among landholder groups has been demonstrated to be flawed (see for example Richards 1996; Barr 2003), the authors propose a novel approach for understanding and maximising community engagement for NRM. This approach begins with the development of a typology of engagement (Figure 1), rather than imposing a typology of potentially arbitrary attributes (e.g. land use, income or profession). An understanding of current engagement practice is needed to determine the development of a framework for such a typology to ascertain what engagement tools are currently in use, who is currently engaged and how, who is not currently engaged, what attempts have been made to engaged with the non-engaged or disengaged,¹ and what perceptions are prevalent among engagement practitioners regarding the opportunities and constraints for more effective engagement. Once this review has been conducted in order to establish a typology framework, the typology can be populated with motivations and preferences for each of the types of engagement (i.e. the activities or groups in which stakeholders participate), and then matched with engager capacities to choose an appropriate and targeted mix of engagement tools. A further consideration for both research and practice is the question of how the long-term capacity for community engagement among engagement practitioners could be improved. A focus on education and training (through action learning) can be used to promote improved reflection on the part of engagement practitioners, to encourage the continuous improvement of engagement practice and hence effectiveness.

| | Engaged | | Disengaged | Non-engaged |
|------------|------------------------------------|--------------------|------------|-------------|
| | Engaged in NRM | Engaged in non-NRM | | |
| Location 1 | Motivations and preferences | | | |
| Location 2 | | | | |
| Location 3 | | | | |

Figure 1. Typology of engagement framework

To develop a typology of engagement for the SEQ WCs region current engagement practice, data was collected via key informant interviews and participant observation of engagement practices. Key informant interviews targeted key practitioners involved in NRM engagement in the SEQ Western Catchments region. Interviews were conducted face to face, with interviews being taped for back-up reference and summarised in situ. A snowballing interview approach was used to capture key practitioners who were not originally identified by the authors. A total of 41 interviews were conducted from November 2004 to February 2005. Interviewees represented 29 institutions, including: (i) the regional NRM group; (ii) local governments; (iii) State government agencies; (iv) industry groups; (v) conservation groups; and (vi) universities.

¹ By unengaged, we mean those community members who have not been drawn into any form of voluntary action or consultation program. By disengaged, we mean those community members who have chosen to withdraw from voluntary actions or consultative processes.

A semi-structured set of interview questions was used to enable interviewees to expand on points of importance to them, and to allow the interviewer to probe for clarification or expansion on issues relevant to the research focus. Participant observation of engagement practice supplemented the key informant interviews by providing some examples of engagement in practice. Four SEQ Western Catchment Open Days (to encourage feedback on and promote the draft SEQ WC NRM Plan) were attended by the authors (held in Esk, Ipswich, Laidley and Woodford) in September and October 2004. A desktop review of current engagement practice (as documented by the SEQ Western Catchments Group) also provided additional material to inform the analysis of the key informant interviews.

Key informant interviews were qualitatively analysed to explore emerging themes relating to current community engagement practice. Data was coded and analysed using the NVivo software package. The data analysis was designed to extract emerging themes relating to: (i) characteristics of practitioners involved in engagement; (ii) current practice (tools used, target audience, and measurement of success); (iii) opportunities for engagement; and (iv) constraints to engagement. The analysis was also designed to construct a framework for types of engagement — to be later populated with motivations and preferences (of representatives of those engagement types) and matched with engager capacities.

Testing the alternative methodology: Findings from the South East Queensland Western Catchments

The authors identified distinct 'types' of engagement within SEQ WC's diverse and conflicting communities of interest that highlight the perceived heterogeneity of landholders preferences by engagement practitioners. Within each community, different levels of engagement and participation were identified. For many NRM engagement practitioners, engagement is about people, interacting in a relationship over time in the context of developing trust. Engagers value their relationships with community members and seek to network with key people who are already in a position of trust in a community. All of the NRM engagement practitioners recognised that the community in the western catchments is rapidly changing such that long-time rural residents now live side by side with new residents moving from the city or other states to purchase lifestyle properties in the catchment. This rapidly increasing complexity of engagement reflects a rapidly increasing complexity of land use.

People in the various SEQ WC communities who are engaged in NRM are generally perceived by NRM engagement practitioners as positive and enthusiastic people who are passionate about issues that are relevant to them. They are often volunteer members in an NRM group network who have the resources to undertake NRM activities. They actively seek information, have the capacity to listen, understand and be motivated, although engagement practitioners perceive variations within the engaged concerning the *levels* of both engagement and the *motivation* to be involved. NRM engagement practitioners knew of people engaged in NRM across all of the sub-catchments managed by the SEQ WC. All NRM engagement practitioners noted that, particularly in small communities, the people who engage in NRM also engage in non-NRM activities. While this may contribute to burnout of key individuals, it also presents an opportunity to potentially embed NRM engagement within non-NRM networks.

NRM engagement practitioners agree that they have limited first hand knowledge of both the characteristics of, and the location in the community, of the NRM non-engaged. People who were not engaged in NRM

were perceived by NRM engagement practitioners as too busy and involved in other issues, not aware of the current NRM topics, distrustful of impositions and interested in retaining the “right to manage their property as they see fit”. One problem identified with engagement for NRM is that many people expect to see an immediate outcome and become disillusioned when they realise that the benefits of NRM may occur over longer time scales. People who were not engaged in NRM were found across all sub-catchments managed by SEQ WC, particularly the sub-catchments managed by the Gatton, Ipswich, Esk and Laidley shire councils.

NRM engagement practitioners in the SEQ WC are aware that there are many people in the western catchments who are not currently, but potentially could be, engaged in NRM activities. A range of one-way or two-way engagement tools have been used with varying levels of success in an effort to include the people who are currently not engaged in NRM issues. The responses to these attempts to engage people on NRM issues varied depending on the topic, the suitability of the engagement tool used, and other influencing circumstances (e.g. other time demands facing potential participants). The experience of engagement practitioners was that public meetings often result in a poor turnout; field days need to be highly technical with innovative content to attract people and often do not provide much feedback or follow-on; whereas, a short duration event with preparatory work, with demonstration and practice, and then food and drink provided afterwards provides a good experience that usually gets a good turn out to subsequent events and inspires new projects.

One key factor of engagement in the SEQ WC is that engagement has traditionally been ‘engager-driver’, with the engagers determining the topic and tools for engagement. This has potentially contributed to a reduction in effective engagement. A typology of engagement for the SEQ WC may help to strengthen the effectiveness of engagement by highlighting motivations and preferences for engagement among various participants in various sub-catchments. For example, the typology of engagement developed by the authors for the SEQ WC identifies a range of both NRM (e.g. landcare) and non-NRM (e.g. rural bush fire brigades) engagement activities (Figure 2).

| | Engaged | | | | | | | Disengaged | Non-engaged |
|------------------------------|------------------------------------|---------------|------------------|------|-----------------|---------------|-------------------------|------------|-------------|
| | NRM engaged | | | | Non-NRM engaged | | | | |
| | Landcare | Farmer groups | Local government | etc. | Farmer groups | Service clubs | Rural bushfire brigades | | |
| Bremer sub-catchment | Motivations and preferences | | | | | | | | |
| Mid-Brisbane sub-catchment | | | | | | | | | |
| Stanley sub-catchment | | | | | | | | | |
| Upper Brisbane sub-catchment | | | | | | | | | |
| Lockyer sub-catchment | | | | | | | | | |

Figure 2. Example typology of engagement framework for the South East Queensland Western Catchments

After populating the typology of engagement (through interviews with representatives of each of the engagement types to determine motivations and preferences for engagement, and to test the perceptions of the engagement practitioners), the next step in designing an engagement strategy is to match motivations and preferences to the capacities of the engagement practitioners. However, matching motivations and preferences with capacities an engagement strategy may still fail if there is little understanding of the context in which the engagement will occur. Hence, opportunities, constraints and other considerations must frame the engagement strategy.

Opportunities, constraints and considerations for engagement practice

The authors identified engagement gaps and synergies, and barriers that exist between groups, communities, sub-regions and sub-catchments. Firstly, the authors identified a “churning rural-urban demography” (Barr 2003) whereby longstanding farming families have become economically unviable in the face rural restructuring and socially unsustainable in the face of changing societal expectations such as higher living standards. This demographic change is equally reflected in ‘lifestylers’ (Victorian Department of Primary Industries 2004) taking up residence on subdivided farming land. Lifestyle farmers are either absentee (weekend), commuter or retiree owners of small blocks of land (that are economically unviable in agricultural terms). This changing social fabric is a source of distress to longstanding rural communities. Despite the lack of long association with land, the interviewees reported a perception of high levels of

environmental awareness and interest among lifestyle farmers that made appropriately targeted engagement relatively easy to achieve. However, relations between lifestyle farmers and traditional farming communities are viewed as tense and prone to mutual incomprehension. For example, longstanding communities tend to perceive newcomers, symbolic of unwelcome rapid social change, as naïve ‘freeloaders’ who do not manage weeds or fire risk responsibly. The remaining viable farmers are busy negotiating the cost price squeeze that restricts attention to productivity issues. For NRM to be implemented by farmers, it must be translated into the language of productivity.

Secondly, the authors identified a dissatisfied NRM community. The message from this community is that damage has been sustained by discontinuous funding that has resulted in the loss of active programs and staff by catchment centres and landcare groups, and consequently the cessation of engagement. The pressure to apply for short-term funding is contributing to burnout in on-ground people, the custodians of detailed local social and biophysical knowledge, such as catchment centre and landcare group coordinators as well as the demoralisation of volunteers. The landcare movement was described as ‘disenfranchised’. The regional NRM plan was perceived by some interviewees to have caused this funding lag by tying up funding and ‘squashing’ pockets of localised high NRM capacity. SEQWCG is also commonly viewed as too broad and remote from local communities. There is concern among some interviewees that SEQWCG is: (i) too centred in Ipswich; (ii) that the regional scale and priorities are not locally relevant; and (iii) SEQWCG staff does not spend enough time in the sub-catchments — although the SEQWCG are currently responding to this by encouraging the community liaison officers to be based within local communities (rather than at the SEQWCG headquarters in Ipswich) for most of each week. On a positive note, the interviewees are cognisant of the structural advantages of SEQWCG institutional arrangements. Four key advantages were nominated. Firstly, the SEQWCG was commonly visualised as a hub capable of pulling local efforts into a team effort. Secondly, WCG offers the advantage of being a centralised port of call with representation from all the relevant interests, communities, sectors and institutions of the region. Finally, interviewees emphasised the advantages of a strategic plan that nominates resource condition targets that are underpinned by sound science.

Thirdly, key institutional actors were identified. The loss of a state agency extension role — officers that offer one-on-one landholder advice — is a common lament across the range of interviewees and is a pivotal NRM problem. Engagement practitioners perceive that the traditional farming community liked extension services and grieve its loss. This sense of loss has translated into a sense of alienation, as well as a perception that extension has been replaced by water and vegetation regulation. From a community point of view engagement is disjointed as state government departments suffer a ‘silo mentality’ that pays little regard to the engagement processes of other agencies or groups. Fragmentation and lack of connectivity is experienced between multiple NRM issues due to the lack of dedicated NRM staff in local governments and lack of extension staff in state agencies. However, there are examples of positive institutional influence in the region. For example, the Moreton Bay Partnership has been a catalyst for NRM-focussed (water quality) interest, developing a scientifically valid digestible, user-friendly waterway ‘scorecard’ and promoting it to the community.

Fourthly, crucial differences between the region's local governments were characterised. Local government interviewees expressed a view that NRM responsibilities have been devolved to local government without the accompanying resources necessary to discharge those responsibilities. Concern was also expressed at the fact that local government has become the first port of call for landholders concerned about NRM issues such as fire risk, vegetation clearing, habitat protection as a direct result of the winding back of state agency extension. Large capacity differentials were identified between SEQ WC's local governments. Rural shires with a low rate base struggle to cover traditional responsibilities, and find it difficult to leverage money and conduct on-ground works to achieve NRM. Some small rural shires consider urban residents use a 'free amenity playground' while these natural resources remain the unpaid responsibility of rural residents. The capping of development in rural shires by the Queensland Government's Draft Regional Growth Management Framework has extinguished hopes of increasing the rate base. SEQ Water is frustrated by: the uneven capacity of Western Catchment councils to assess development applications against drinking water catchment issues; the absence of a concurrence role whereby SEQ Water's could formally provide this expertise; and the pro-development stance of councils that raises new threats to water quality. However, SEQ WC also contains councils that are leading the way in terms of NRM innovation by integrating traditional land use planning with environmental objectives. Sympathetic management in some SEQ WC local governments has allowed passionate and creative people to become catalysts for NRM. Local government champions have succeeded in sensitising councils to environmental degradation. These councils are embedding innovative planning mechanisms and development codes into their planning schemes, building on EnviroFund and NHTI programs, and establishing green levies in order to fund permanent NRM staff members. Lifestyle farmers have become important supporters of the establishment of local government green levies.

Actual and potential engagement synergies were also identified by the authors. Examples of innovation in leveraging funds, brokering partnerships and building social capital were identified through the interviews. Corporate investment in NRM in a high amenity area close to a major urban conurbation is viewed by the interviewees as a possible source of funding for on-ground environmental works. For example, Powerlink has provided one million dollars to establish Greening Lockyer in an effort to demonstrate their corporate citizenship credentials. Core funding can and has been used in the western catchments as a platform on which to leverage funds, building integrated NRM programs from several sources of funding that address multiple objectives. Such objectives include: building social capital; increasing levels of NRM awareness; and developing linkages between people and educational, state agency, agricultural and local government institutions.

Points of community galvanisation were also identified. Efficient water management is a galvanising issue. For example, the Water Users Forum has formed in order to generate a common position between upstream and downstream irrigators in the attempt to formulate their own water plan in preference to being subjected to water regulation. Community capacity and energy is currently focussed in directions as yet unconnected to NRM. A multitude of community organisations involved in established social networks were nominated by the interviewees (Apex, Rotary, Probis, churches, etc.). For example, Esk and Lowood have a community hub that serves to connect their communities to a Community Service and Research Centre in the Ipswich community. In some areas of SEQ Western Catchments, strong religious communities exist with long

histories and allegiances that are yet to be tapped into for improved NRM. Better use could also be made of existing NRM networks such as those developed by Greening Australia, which has developed a large community, industry and local government profile.

Implications for NRM engagement and governance in peri-urban areas

The findings have a number of implications for both NRM engagement and governance in peri-urban areas both within the SEQ Western Catchments and potentially in other peri-urban landscapes. The major implication is that NRM in peri-urban landscapes necessitates engagement with broad range of stakeholders and that traditional agri-extension approaches may no longer be appropriate in these transitioning landscapes. In order to determine the most appropriate mix of engagement tools, motivations and preferences of potential participants must be linked to engager capacities, which may occur through an understanding of current engagement practice and the population of a typology of engagement.

Secondly, engagement must be self-sustaining, particularly given the discontinuity of funding and government support. NRM is essentially dependent on volunteers. Volunteerism for the purposes of undertaking environmental works and establishing ecologically sustainable practises is undermined by discontinuity of funding and silo based engagement. Erratic funding means that money is unavailable to ensure the continuous employment of landcare group and catchment centre coordinators such that the detailed social and biophysical knowledge that they have garnered is lost, and the relationships built up to sustain engagement over NRM languish. The reality is that government resources are limited in the face of the extent and long-term nature of environmental degradation. Consequently, money is best spent ensuring that engagement over NRM is made as socially organic (self sustaining) as possible. Silo-based engagement (consultations that are agency and issue limited) is not meaningful in terms of either communities of interest or communities' sense of place. Such fragmentation works against socially organic, volunteer based mobilisation in the face of the degradation of natural resources.

A third consideration relates to social galvanisation. Because engagement needs to be strategic in the face of limited time, staff and resources, it is important to identify, through careful research, opportunities to galvanise communities into action to address resource degradation. This research identified such opportunities that have been provoked by the Moreton Bay Partnership's waterway scorecard science, irrigators' cooperation in the face of water regulation, and strong social networks that could be connected to NRM.

Finally, the identification of instances of NRM engagement innovation through research is also important because it gathers rational evidence of which technique has proved successful; that is, what is recognised as innovative by other practitioners. Successful innovation in terms of engagement instantiates learning through experimentation. Identification of innovative engagement practises through social research can lead to the characterisation of adaptive approaches able to encourage breakthroughs in engagement practice over incremental change. The instances of adaptive engagement identified by the authors exhibited the following characteristics: (i) taking advantage of demographic trends to garner support for the establishment of green levies and harness social enthusiasm regarding NRM; (ii) leverage of core funding to access a diverse source of secondary funding to build NRM programs that meet multiple objectives; and (iii) learning from

engagement mistakes to craft engagement approaches that avoided triggering social fears of “interference with private property rights”.

Identifying (i) how existing engagement efforts can be better supported; (ii) opportunities for community galvanisation; and (iii) innovative adaptive design of engagement processes, may contribute to engagement synergies. By synergies we mean that engagement research can help practitioners to pull in a common direction, develop better horizontal and vertical linkages between practitioners and government resources so as to generalise important learnings regarding engagement and encourage engagement practice for NRM to become more self-sustaining.

The next phases of the research are to: (i) understand motivations and preferences to populate the engagement typology (figure 2); (ii) match various engagement tools to those motivations and preferences, as well as the capacities of engagement practitioners; (iii) work with engagement practitioners to trial the effectiveness of various tools (action research); and (iv) develop tools to encourage engagement evaluation and a reflective practitioner approach to sustain and improve engagement in the SEQ WC in the long term.

Conclusions

Peri-urban landscapes are undergoing rapid change, which adds complexity to community engagement for NRM. The effectiveness of traditional approaches to engagement in these landscapes (e.g. agri-extension) may continue to diminish over time. A novel approach to maximising engagement effectiveness has been proposed by the authors, which has a focus on matching potential participant motivations and preferences for engagement with engagement practitioner capacities. A first step in achieving this is the development of a typology of engagement, rather than the approaches that have dominated in the past of attempting to homogenise and understand potential participants via arbitrary groupings (e.g. land use, income or profession). The development of a typology of engagement has the added benefit of highlighting non-NRM engagement activities that could add value to NRM engagement processes. When designing an engagement strategy, the authors also highlight a number of opportunities, constraints and governance considerations, which are often context-specific, and may bound the success or failure of actual engagement practice.

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