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Healthy Country Project 3530

Socio-economic Assessment



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Introduction

The UQ Boilerhouse Community Engagement Centre was contracted to develop a draft methodology to assess socio-economic aspects of two sub-projects within the *Healthy Country - managing the land for healthy waterways (Healthy Country)* project.

The research question to be answered by the proposed methodology is:

What are the stakeholder perceptions regarding the opportunities and/or constraints which influence their behaviour and/or practices relating to water quality, and riparian restoration issues?

Five deliverables, as set out on the project brief, provide the sub-headings for this report:

1. Summary report reviewing five existing socio-economic studies from regional South East Queensland (SEQ) or SEQ catchments (4-5 pages; fully referenced)
2. Draft survey instrument, based on Curtis *et al.* (2006) survey instrument and/or other instruments; incorporating questions relating to Locus of control and the DPIF interview questions. This study will provide a draft instrument which will need to be pilot tested, in accordance with normal social science practices.
3. Comments on the validity of the various socio-economic data sets at different scales. Comments will recognize that nesting of the socio-economic data at different spatial scale sub-projects is required wherever possible (2-3 pages)
4. Comment on proposed methods of data collection, incorporating comments from project leaders from each of the two sub-projects (4 pages)
5. Provide feedback on appropriateness of questions provided by Healthy Country project partners (Department of Primary Industries and Fisheries DPIF & SEQ catchments) to ensure capture of data for a future typology of rural landholders.

In addition, Section 6 outlines broad scale recommendations to take this work forward through an effective, efficient and valid research process.

In essence, this component of the *Healthy Country* project focuses on monitoring and evaluation requirements for socio-economic factors within the peri-urban zone of SEQ. This report provides a research design that incorporates the proposed survey instrument, and indicates how this instrument could be nested with other sources of data. It also provides additional recommendations stemming from the project review and discussions with key stakeholders.

1. Review of five socio-economic studies from SEQ

The five reports/papers reviewed in this section are as follows:

1. Rickson S, Warburton J and Keith K (2006) *Linking the social with the environmental: Identifying community capacity in the SEQ WCG region*. Report prepared for the Innovations Fund for Social Science in Natural Resource Management in partnership with SEQ Western Catchments.
2. Low Choy D, Sutherland C, Scott S, Polley K, Gleeson B, Dodson J and Sipe N (2007) *Change and continuity in peri-urban Australia. Peri-urban case study: South-East Queensland*. Griffith University, Nathan. Monograph 3 November 2007.
3. McKenzie J, Whelan J and Oliver P (2006). *Reconnecting Fragmented landscapes: a scoping study on Natural Resource and Environmental Management in the peri-urban landscapes of south east Queensland*. Brisbane: South East Queensland Catchments and the Queensland Department of Natural Resources and Water.
4. Thomson D and Pepperdine S (2003) *Assessing community capacity for riparian restoration*. Report for Land and Water Australia, National Riparian Lands R&D Program No: PR030553
5. Darbas T, Smith T and Hall C (2007) *Case Studies of Community Engagement: Enhancing Community Engagement for NRM in the SEQ Western Catchment*. Report prepared as part of the AG-SIP 18 project: Effective Engagement for NRM in the SEQ Western Catchments, September 2007.

Introduction and key definitions

All of the reports and papers were about the *peri-urban zone*, and most focus on SEQ. However, each of the reports has a slightly different theme, including capacity, social capital, incentives and engagement tools. Definitions of peri-urban are discussed by Low Choy, Sutherland, Scott, Polley, Gleeson, Dodson and Sipe (2007), Rickson, Warburton and Keith (2006) and McKenzie, Whelan and Oliver (2006). Basically it is the area in transition, between rural and urban, and is usually between these two areas. Peri-urban may actually characterise a new style settlement with diverse communities, which needs to be managed differently from either urban or rural (Low Choy *et al.* 2007; McKenzie, Whelan and Oliver 2006).

Capacity is not explicitly included in the *Healthy Country* project brief. However, an understanding of the capacity of all stakeholders is essential to achieve the goal of influencing behaviour and practices related to water quality and riparian restoration. Capacity is one of the key factors influencing effective communication and engagement strategies related to NRM. A synergistic relationship exists between people, their behaviour and practices and the various social, cultural, environmental and economic contexts within which they live. Assessing capacity is a form of social reporting, and as such, assessment approaches need to appreciate the complex interplay between social, environmental and economic systems (Cuthill, Maclean, Ross, Owens, Witt and King, 2008 in press).

Thomson and Pepperdine (2003:13), working from a review of definitions of capacity, argue that it incorporates:

... the capability of individuals, groups & institutions to understand & deal with the enabling & constraining elements, dimensions & issues that drive the process of 'capital' accumulation & decline (in all its forms) to produce desirable outcomes ... with a focus on understanding capacity from a dialectic perspective, recognising the flows & fluxes.

Capacity is also a theme of Rickson, Warburton and Keith (2006:v-vi and 87-94) who recognise the dynamic nature of capacity, especially in peri-urban zones. They examine social capacity of local groups in their case studies, and linkages between groups. Capacity is mentioned to a lesser extent by Low Choy *et al.* (2007: 125-129) who comment that newcomers lacked NRM capacity particularly in terms of skills and time. Rickson *et al.* (2006) link capacity to additional theoretical concepts such as social capital, networks and sense of place. They identify these concepts as critical when forming effective multi-stakeholder partnerships to achieve positive long-term outcomes from natural resource

management (NRM). Darbas, Smith and Hall (2007) look at how to improve community engagement for NRM in the peri-urban zone, by examining four specific engagement tools.

A planning background is reflected in the report by Low Choy *et al.* (2007) which analyses spatial, land use, environmental, social and economic trends, and the implications for future land use and land management in a case study in SEQ. They also mention capacity of newcomers in the peri-urban zone, and evaluate governance and institutional arrangements. McKenzie, Whelan and Oliver (2006) also review trends in SEQ, and the role of incentives to connect fragmented landscapes in SEQ.

Key themes

This socio-economic monitoring and evaluation component of the *Healthy Country* project focuses on opportunities and/or constraints that influence behaviour and practice change in NRM, specifically water quality and associated riparian restoration. Thomson and Pepperdine (2003:23) point to the duality about opportunities (i.e. success factors) and constraints (i.e. failure factors), stating:

Issues and events that contribute to 'success' and those that cause 'failure' are not necessarily mutually exclusive. Rather, the same issue or event, in different places and times, can contribute to success and/or failure, depending upon the regional context and the ability of the individual/ group/agency to understand and manage that issue or factor.

A good example of this duality is flooding. Flood damage can mean people become disheartened when crops, livestock and/or infrastructure are destroyed. On the other hand, floods can raise awareness of, and interest in, riparian restoration as a flood mitigation response (Thomson and Pepperdine 2003). This duality, and the importance of context, is often forgotten in the extensive literature of barriers to adoption. This was evidenced in this review, where only one paper mentioned this issue.

Six key themes identified through this review are listed below (Table 1). Opportunities and/or constraints that influence behaviour and practice change are noted.

Table 1 Themes from reports reviewed

Theme	Key reports	Comments from reports
Definitions & drivers of peri-urban	Thomson & Pepperdine Low Choy <i>et al.</i> McKenzie, Whelan & Oliver	Comprehensive discussion of definitions; emphasis on capability & dialectical perspective (Thomson & Pepperdine 2003). People more motivated to riparian restoration for environmental, aesthetic, farm-succession reasons, not economics (Thomson & Pepperdine 2003:30). Drivers for change include fragmentation & loss of agricultural land (Low Choy <i>et al.</i> 2007:109-110; McKenzie <i>et al.</i> 2006:13-21) Contemporary trends emphasise dynamic & changing nature of peri-urban communities (Low Choy <i>et al.</i> 2007:130-135) Peri-urban may characterize the future of rural landscape (McKenzie <i>et al.</i> 2006:11) Landscape in transition (McKenzie <i>et al.</i> 2006:13)
<i>Opportunities</i> for behaviour & practice change related to NRM	Rickson <i>et al.</i> Low Choy <i>et al.</i> McKenzie <i>et al.</i>	Networks do exist in rural and peri-urban communities; vary between communities; sometimes stagnant (Rickson <i>et al.</i> 2006:2) Declining levels of social disadvantage (Low Choy <i>et al.</i> 2007:102) Monitoring & evaluation needed for continuous improvement (McKenzie <i>et al.</i> 2006:73).
<i>Barriers & constraints</i> to behaviour & practice change	Low Choy <i>et al.</i> McKenzie <i>et al.</i> Thomson & Pepperdine	Knowledge & skills of newcomers is lacking for NRM (Low Choy <i>et al.</i> 2007:125-129; Thomson & Pepperdine 2003) Contextual barriers are important: Knowledge of NRM issues; stewardship ethic; Consultation & ownership; Access to on-going support; Financial constraints (McKenzie <i>et al.</i> 2006:31-37).
Institutional arrangements	All reports: Rickson <i>et al.</i> Low Choy <i>et al.</i> McKenzie <i>et al.</i> Thomson &	Positive policy shift is the increasing evidence of cooperation & coordination between groups; this overcomes duplication & perceived waste of resources (Thomson & Pepperdine 2003:28) Policy makers & practitioners need to support processes that encourage local participation; lack of trust in government (Rickson <i>et al.</i> 2006:17).

	Pepperdine Darbus, Smith & Hall	Discrepancy in perceptions about community engagement (Rickson <i>et al.</i> 2006:83) Governance & institutional arrangements in SEQ are very fragmented; more collaborative arrangements (horizontal & vertical) needed (Low Choy <i>et al.</i> 2007:103-104); More institutional collaboration required (Darbus, Smith & Hall 2007:6) Poor dispute resolutions processes (Low Choy <i>et al.</i> 2007:98-99) Flexible funding arrangements, not 'one-size-fits-all' (Thomson & Pepperdine 2003:27-28; McKenzie <i>et al.</i> 2006) Engagement practitioners need training & networks (Darbus, Smith & Hall 2007:3-6)
Capacity, including social capacity	Rickson <i>et al.</i> Thomson & Pepperdine	Social capital defined (Rickson <i>et al.</i> 2006:15-16); key learnings about cooperation & networks, trust, leadership, power, communication & awareness (Rickson <i>et al.</i> 2006: 80-84) Elements of social capacity identified (Thomson & Pepperdine 2003:9) Several individual characteristics that link to behaviour & riparian practices, particularly values & perceptions & program design (Thomson & Pepperdine 2003:16-47; Appendix 1 of this report) Social capital & networks need financial resources; sense of place important for networks is linked to (Rickson <i>et al.</i> 2006:17-19) Consistency is important in maintaining the identity of programs, groups & personnel; particularly, consistency of messages is critical in building trust & confidence (Thomson and Pepperdine 2003:29)
Field days or Demonstration days	Thomson & Pepperdine Darbus <i>et al.</i>	Field days are generally effective (Darbus, Smith & Hall 2007) Demonstration days very 'mixed'; choice of participants critical; can suffer from "back to favourite" problem (Thomson & Pepperdine 2003)

Some key learnings from these reports are of relevance to the *Healthy Country* project, including:

- [1] Communication and engagement strategies need to be inclusive of all stakeholder groups. This can be difficult given the dynamic and diverse nature of the peri-urban region. Specifically
- Some stakeholder groups are not appropriately engaged, even though these include quite large numbers of people and are economically significant - e.g. the equine industry (Low Choy *et al.* 2007)
 - Agencies tend to re-engage with known stakeholder – i.e. they “go back to the favorite individuals and groups”. This further marginalizes the forgotten groups, and can exacerbate problems of over-consultation (Rickson *et al.* 2006; Thomson and Pepperdine 2003)
 - Practitioners need to engage a more diverse range of stakeholders, and if necessary utilize alternative engagement tools (Darbus, Smith and Hall 2007:3).
- [2] Institutional issues can adversely effect communication and engagement. At present, institutional factors that impact on landholder behaviour and practices are not a strong focus of the socio-economic monitoring and evaluation strategy for the *Healthy Country* project. The importance of institutional factors, especially in relation to communication and engagement strategies, needs to be reconsidered.
- [3] Specific recommendations in terms of NRM of peri-urban zones are noted. As a starting point, issues relating to peri-urban communities are different compared to rural or urban communities (Rickson *et al.* 2006). McKenzie, Whelan and Oliver (2006:12) support this assertion and suggest that management, incentives and engagement strategies need to respond to the specific context rather than simply using tools from urban or rural contexts. Thomson and Pepperdine (2003:49) recommend thinking about capacity more broadly, as a strategy to encourage communities, institutions, groups and individuals to recognise dynamic opportunities to influence processes and achieve more desirable outcomes. This does not replace the ‘traditional’ interests of ‘capacity building’, such as education, training, enhancing skills in working together and leadership, but rather it changes the focus of such activities to allow an adaptive and dialectic approach.

Case studies

All of the reports reviewed presented case studies in the peri-urban zone, except for McKenzie, Whelan and Oliver (2006) which looked at the SEQ peri-urban region generally. One of the values of the case studies is that these results can be compared to data collected in the *Healthy Country* project. Comparisons can be made both to local data, such as from focal areas and sub-catchments; as well as to regional data, if and when regional surveys are undertaken. These various sources of data will provide a richer picture of peri-urban communities in SEQ, which are recognized as complex, diverse and dynamic (McKenzie, Whelan and Oliver 2006; Low Choy, Sutherland, Scott, Polley, Gleeson, Dodson and Sipe 2007). Of particular note is that no two areas in SEQ are likely to have similar values and perceptions of water quality and riparian restoration.

One report uses only secondary sources of data (Low Choy *et al.* 2007), while three reports collected primary data through surveys, focus groups, interviews and other techniques (Darbus, Smith and Hall 2007; Rickson, Warburton and Keith 2006; Thomson and Pepperdine 2003). Both are valid and important forms of social research to inform NRM in peri-urban regions.

Only one of the reports (Thomson and Pepperdine 2003) discusses several case studies on riparian restoration in catchments across Australia. Two reports discuss case studies in SEQ:

- Rickson *et al.* (2006) looks at three sites in the Bremer Catchment in and around the south west of Ipswich; including primary data collection
- Low Choy *et al.* (2007) examines the extended Western corridor including Ipswich City and the Shires of Esk, Laidley and Gatton; using secondary data sources.

To summarise, case studies are useful for the *Healthy Country* project in two ways. Firstly, these assist by supporting the theoretical argument of the reports; and secondly, provide data that can be compared to data collected within the SEQ, both from sub-catchments and focal areas. A detailed summary of each of the five reports is included in Appendices.

2. Draft survey instrument

The review of these five reports helped inform the survey instrument developed for the *Healthy Country* project (Appendix 1). Variables for the survey instrument were selected using national guidelines (Nelson *et al.* 2006), together with examples of other regional socio-economic surveys. The national guidelines were developed to prioritise the collection of socio-economic data as related to natural resource management programs (Nelson *et al.* 2006). Appendix 2 indicates the specific links between the national guidelines and questions developed for the *Healthy Country* project.

The categories from the proposed national framework were compared with variables used in three reports:

1. Byron, Curtis and Mackay (2004) who report on social and economic data for the Burnett Mary Region for Natural Resource Management;
2. Curtis, Cooke, McDonald and Mendham (2006) who report on social benchmarking for the Corangamite Catchment Management Authority (Curtis *et al.* 2006); and
3. A recently developed questionnaire for the Border Rivers – Gwyder region (BRS 2008).

Variables chosen from these reports were combined with specific additions, suggested by *Healthy Country* project managers, to meet specific *Healthy Country* project aims.

Options for responses within questions were selected from these sources as well as a previous study in South East Queensland (Rickson *et al.* 2006), which identified a range of values, issues and constraints relevant to the study area. Then, the Border Rivers-Gwyder survey provided a guide for framing questions, so some of the questions are similar to those used in this survey. As well as these sources, input to question selection was provided by sub-project leaders of the *Healthy Country* program at orientation meetings and by comment on a draft questionnaire.

Focus on developing a landholder typology was requested as a project output. As such, the survey questions were aligned to fit orientations described by two recently developed typologies for peri-urban areas (Hollier and Reid 2007; Low Choy *et al.* 2007). Further discussion about typologies is in Section 5 of this report. The proposed *Healthy Country* survey certainly has sufficient questions to inform a typology, *if* these categories are applicable to the residents of South East Queensland. The approach suggested by the UQ Boilerhouse Community Engagement Centre approach is to allow the data to determine the categories, rather than having pre-determined categories. As such, development of the typology will be an iterative process emerging from survey implementation. Results will then be grounded in stakeholder responses rather than solely on theoretical discussion.

In addition to the typology development, existing Locus of Control questions were also proposed, for inclusion in the survey. However, after discussion with Col Freeman from SEQ Catchments, these have not been included. The UQ Boilerhouse survey instrument is already quite long in its own right and it is suggested two separate surveys be implemented separately.

As outlined in the brief, this study provides a draft instrument (Appendix 1) which will need to be pilot tested, in accordance with normal social science practices. A Research Design is proposed (section 4) which outlines options for possible steps to maximise the effectiveness and efficiency of any socio-economic survey data collection. Appropriate testing procedures are outlined by Dillman (2007) as well as Hanslip and Byron (2007).

In summary, surveys should ideally be tested with three groups of people. The first testing with survey researchers has been undertaken within the current project, as several researchers have examined the instrument. The second test is with end users, including the *Healthy Country* project staff and other collaborating organizations. Third, the survey needs to be pilot tested with a sample of peri-urban stakeholders.

3. Validity of integrating socio-economic data sets at different scales

Various socio-economic data sets will be collected as part of the *Healthy Country* Project. Nesting of data from different scales is required to allow comparisons within the catchment and potentially between catchments. Integration across both the vertical and horizontal scales is necessary to minimise waste of resources and avoid duplication (Cuthill *et al.* 2008; Kelly 2003).

Data within the *Healthy Country* Project will cover various vertical and horizontal scales within three identified priority catchments (Logan-Albert, Bremer Rivers and Lockyer Creek):

- Individual properties from three focal areas within each of the catchments (10-20kms stretch of river bank identified as high priority for riparian restoration by the Waterway Restoration sub-project, managed by SEQ Catchments); and
- Individual producers (25-30), who are sub-commercial / part time/ commercial producers from horticulture, cropping, grazing, dairying etc. (in the Sustainable Land Management sub-project, managed by DPI&F).

The sub-catchment and focal areas use different methods of choosing participants. In the sub-catchment participants are chosen using an informal stratified sample, in combination with a snowballing technique (*pers. comm.* Brian Stockwell). Focal areas choose neighbouring landholders along a river in a high priority area for riparian restoration (*pers. comm.* Col Freeman). The proposed catchment or regional survey would likely benefit from use of a rigorous stratified sample.

Vertical scales that need to be integrated in the *Healthy Country* project are the catchment or region, sub-catchment and focal area, as well as individual properties. The focal area and sub-catchment are not sub-sets of the other; but are a scale within the catchment but above the individual property.

Vertical integration of data requires that the sample selection be consistent. In this component of the *Healthy Country* project, the current sample selection is different at different scales, making scaling up of data inappropriate. To scale up data from the individual property to the catchment scale requires rigorous methods of data collection and appropriate sample selection processes.

Scaling up or scaling down

Scaling down from a statistically valid sample at the catchment level to the sub-catchment, focal area or individual property scale is possible. Sub-catchment, focal area or individual property data can be compared to the catchment data and a deeper understanding can be gained relating to, for example:

- Where in the typology the individual fits;
- Similarities and differences between individuals;
- Issues of concern (opportunities/constraints); and
- Individual values and/or practices.

Scaling down of data within the *Healthy Country* project is potentially possible without making changes to the current manner of data collection and selection of participants. If scaling up is required, significant changes to the sub-project research design would be required to enhance rigour. Ideally the same person should conduct all interviews, and they should have the similar level of knowledge about the situation of each interviewee, their context and industry. This is obviously impractical. Therefore, training in social science interview techniques of the interviewers would be necessary, but from experience, even then the required rigour is difficult to guarantee.

Horizontal integration

Horizontal integration between existing data sets is possible. However, comparisons need to be cautious. Ideally, data needs to be collected in exactly the same manner. If structured interviews are used, the changing of a single word within the research question can change the response. In semi-structured interviews it is preferable to use the same interviewers, or at the very least the same format. Again, interviewer training is advised.

As such, horizontal integration necessitates agencies working together on data collection techniques and sharing data sets. Close collaboration is desirable as data collection and analysis can be expensive and time consuming. Horizontal integration also assists in alleviating problems of over-consultation in rural communities (see Table 1; also Kelly 2001). This is relevant as landholders complain about different agencies asking the same questions (Kelly 2005).

Negotiation and perhaps some compromise is required to ensure that the needs of the various agencies are met. Horizontal integration of data sets within agriculture and NRM is currently fraught with difficulties (Campbell 2005; Kelly *et al.* 2007; Low Choy *et al.* 2007). Common problems in sharing data are the language used, and definitions of terms such as farm and farming community (for example Kelly *et al.* 2007; Campbell 2007 for details of problems with integration of current data sets). Enhanced collaboration in data collection and data sharing with other agencies is advised.

Socio-economic data is rarely shared between disciplines and/or sectors, for example between agriculture/NRM agencies and health, education or local governments. It should be noted that in southeast Queensland, other agencies already collect data which is potentially relevant to the *Healthy Country* Project (as well as other agricultural and NRM agencies). In particular, the Office of Economic and Social Research (OESR) collects data on a regular basis from households in SEQ. Data is collected on variables such as health, education, age, sex, income for all local government areas.

Some scope exists for adapting the current or proposed questionnaires to include questions specific to agriculture and NRM. The SEQ catchment corresponds to some extent with the Australia Bureau of Statistics *West Moreton Statistical Division*, and collaboration with OESR is suggested. A disadvantage with some state/national surveys has been the time lag till data is available. However,

This research design shows the proposed survey instrument nested into other data collection and extension strategies (some are already in place i.e. DPIF; while others are proposed i.e. SEQC). This research design is presented as a starting point to stimulate discussion between the partners in the *Healthy Country* project. Convergent interviewing is not recommended. A more detailed research design can be designed in conjunction with the project team when convenient.

To improve communication and engagement strategies, the *Healthy Country* project may wish to consider broadening its aims for social reporting, benchmarking, monitoring and evaluation. Institutional issues have been highlighted as possible constraints to effective engagement (Table 1: all reports reviewed). Therefore it could be useful to examine the capacity of all of individuals and groups other than landholders, such as institutions. Thomson and Pepperdine (2003) have developed and tested a tool to assess broad issues of capacity within the NRM context, specifically related to riparian restoration. This could be considered, and perhaps adapted for SEQ.

5. Comments about a future typology of rural landholders

A typology is a conceptual framework, which in this case aims to highlight social characteristics to guide community engagement and extension strategies for agriculture and NRM. Existing typologies focus either on traditional rural farmers and graziers, or on peri-urban landholders. The typology for SEQ needs to incorporate both.

Typologies can be freeform or have different orientations, such as motivation or values (Table 2). Two key typologies were reviewed as part of this project. Low Choy and his colleagues (2007) had a specific orientation focusing on peri-urban areas but has not been tested or implemented, so is only theoretical. Hollier and Reid's typology (2006:49) for small farms, which has similar definition to peri-urban, emerged from their survey and data coding.

Table 2 Examples of different typologies

Motivation orientation e.g. Darbus, Smith & Hall (2007:3)	Ecocentric orientated	involved in NRM & motivated to reverse environmental degradation
	Production-centric	agricultural landholders motivated by need to remain commercially viable
	Anthropocentric	motivated primarily to increase the social sustainability of their community
Values orientation e.g. Hollier & Reid (2006:48-49)	green	May live on the property or within a neighbouring regional town or urban centre. Motivation for land purchase is to improve/care for environment; food & fibre unlikely to be not produced; strongly value environment
	lifestyle	Resides on the property. Key motivation is lifestyle - to be out of the 'rat race', open space for their children, grow produce for their own consumption. NRM may be important; recognition of environmental problems often low. Incentives likely to work.
	beginning farming	May reside on or off the land. Motivation for land purchase is 'farming', make money from agricultural enterprise. Recognition of environmental problems higher than 'lifestylers', not as high as 'greens'; environmental works need to benefit farming business & environment jointly.
	absentee	They do not reside on the land. Motivation for purchase of land is variable – may be for lifestyle or farming reasons. They do not have a strong land stewardship ethic; knowledge or recognition of environmental problems is low. NRM activities more likely if regulated (e.g. noxious weed control).
Occupation mainly e.g. Low Choy <i>et al.</i> (2007)	Seekers	Seeking different lifestyle: including tree/sea change, life stylers, blockies and homesteaders, religious communities and alternative life stylers
	Survivors	Have adapted to aspects of urbanisation; including DIY home builders, the horse community, "truckies" and "adaptive" farmers
	Speculators	Have taken advantage of opportunities presented by peri-urban growth e.g. farm stays & retreats, pet industry, boutique farmers, equine industry, real estate agents
	Strugglers	Sstruggle with the peri-urban changes; characterised by the "holding-on" farmers
Place based orientation	Number of years in the district	
Source of income	% from property and % from elsewhere	

Both these typologies informed development of parts of the UQ Boilerhouse Community Engagement Centre survey. However, Hollier and Reid's work (2006:49) is probably the most useful as (a) it incorporates values and attitudes for each category; and (b) is designed to inform extension delivery mechanisms and practitioners. Based on this review the authors present broad scale recommendations to take this work forward through an effective, efficient and valid research process

6. Recommendations

The proposed survey instrument needs to be considered within the broader context of community engagement and extension within the SEQ region. This instrument is one component of data collection. If used appropriately, it could also be a tool to facilitate social learning within the rural community and within the agencies and institutions working in the region.

To achieve maximum return from the proposed survey it is recommended that:

- The goal and purpose of the data needs to be clarified further before the sample is chosen.
- It is important to link methods to specific contexts.
- Selection of sample and sample size is critical, and influences whether or not the data can be scaled up and compared to data from other study areas
- Pilot testing of survey instrument is required..
- Collaboration and cooperation between agencies may assist in defraying the costs of data collection. Small adaptations of surveys may allow multiple agencies to draw on the data. Common problems in sharing data sets include the definition of terms such as farm or farming community.
- Training in both the delivery of data collection methods and community engagement should be considered. Consistency and rigour of data collection between interviewers should allow amalgamation of data across the region (i.e. between focal areas and sub-catchments). Convergent interviewing in particular requires experienced interviewers.
- A more comprehensive literature review, including case studies outside SEQ, is required to bring together learning from the experiences of other regional bodies and other disciplines, and to inform future directions.

This project provides responses to five key requirements outlined in the project brief, by reviewing five socio-economic studies, developing a draft survey instrument, commenting on the integration of different scales of data and typologies. This short report also provides a preliminary research strategy to guide further socio-economic research and data collection.

Some suggestions are made in terms of broadening the scope of socio-economic research in SEQ. The need to be inclusive and sampling diverse communities is critical in a peri-urban zone given the fluctuating and dynamic nature of communities. In terms of barriers and constraints for practice change in riparian restoration, institutional barriers need to be considered. Several reports highlighted the importance of institutional factors. Data collection and interpretation can be expensive, and strategies to ameliorate this are suggested. The existing partners have demonstrated that collaboration between organisations does occur, and further collaboration between organisations is recommended.

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