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Compiling regional social and economic profiles: a practical guide for regional NRM bodies

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Contents

Introduction.....	1
Why compile a profile?	1
Compiling a regional profile	2
<i>Social and economic characteristics to include in a profile</i>	2
<i>What data can/should be used?</i>	3
<i>Suggested sources of data to include in social and economic profiles</i> .	3
<i>Suggested characteristics</i>	4
<i>Table 1: Suggested data and sources for social and economic profiles</i>	5
Pulling it all together	17

Introduction

Regional Profiling is a ‘tool’ that regional NRM bodies can use to assist in their understanding of their region. The purpose of a profile is to present a comprehensive ‘picture’ of the region to aid planning and decision-making.

The purpose of these guidelines is to provide practical guidance to the Regional Natural Resource Management Bodies of Qld (regional NRM bodies) for compiling regional economic and social profiles when designing natural resource management (NRM) plans and investment strategies. This should be used in conjunction with Jim Cavaye’s guidelines “Integrating Economic and Social Issues in Regional Natural Resource Management Planning”.

The Queensland/Commonwealth NAP Joint Steering Committee have developed a set of key requirements for including social and economic considerations for the accreditation of NRM plans. As part of these expectations it is necessary for regional NRM bodies to compile social and economic profiles of their regions. These guidelines have been formulated to help meet these requirements and include:

- Why compile a profile?
- Compiling a regional profile, specifically:
 - The social and economic characteristics to include in a profile;
 - What data can/should be used?
 - Suggested sources of data; and
 - Suggested characteristics.

Why compile a profile?

Profiling is an important part of the planning process. Planning for natural resource management requires an understanding of the social and economic characteristics of a region, in addition to biophysical aspects. This need arises because management actions identified within the plan will need the support of the community to be successfully carried out. To harness this support, it is necessary to understand the social and economic characteristics of the regional community that will undertake identified actions or will be impacted by them.

By compiling a comprehensive profile, insights into the unique character of a region can be gained. Regional NRM bodies are then able to identify those characteristics which will influence the way that people interact and engage with natural resource management. Regional NRM bodies can also start to identify those sectors of their regional communities who will be affected directly and indirectly by actions, and for whatever reason do not have the capacity to participate. Participatory models can then be developed which more actively engage these sectors. Ultimately, profiling helps our planning to be more transparent, accountable and robust, thereby increasing its acceptability by the community.

A good profile will not only describe current social and economic values and conditions but will also include trends in those conditions. These trends will highlight the social and economic forces at work in the region. A profile that includes these factors will then form a basis for determining the impacts (both social and economic) of strategies aimed at improving

natural resource management, and how best to mitigate the negative and promote the positive impacts on sectors of the community.

And finally, developing, and regularly updating a profile allows us to track changes in the regional community, noticing industry and sectoral changes, changes to employment, social cohesion and engagement resulting from natural resource management actions. In summary, knowing how the region changes over time can assist enormously in the planning process.

Compiling a regional profile

Social and economic characteristics to include in a profile

A regional profile is composed of a number of elements – social, economic and biophysical (for the purposes of this document, ‘cultural’ aspects are considered as an element of ‘social’). It is important to link social and economic issues with biophysical issues wherever possible. For example, the natural resource base may influence the income and employment generated in a region. The reverse also applies – social and economic characteristics affect how resources are used. The following discusses characteristics that can usefully be included in the social and economic component of the regional profile.

A regional social and economic profile is a means of providing insight into the community, by examining its values, priorities and trends. It should provide a comprehensive picture of the region and the subgroups, or ‘sub-communities’ within. The profile should be more than a snapshot and should allow decision-makers to learn enough about the community to make appropriately considered decisions with respect to the community. It should highlight regional strengths and weaknesses, allowing decision-makers to gain perspective into the community/ies as to their needs and abilities.

Over time, the profile should be developed to include as much information as resources permit to illustrate social and community networks, cultural diversity, social and economic infrastructure, and social fragmentation and resilience, and how these issues inter-relate to natural resource use and management. Establishing trends in population and migration and linking these with trends in employment and unemployment, accompanied by an explanation for the trends, can provide important insights.

The economic component of the profile is just one subset, albeit an important one, of the overall profile, offering important insights into the condition and character of regional society. The major sectors in the region need to be identified along with their relative contribution to the region’s economy. Identification of the major economic trends and drivers in a region such as production, employment and income are basic to a profile. The employment and income generated by the major industries over time should also be assessed and linked to social conditions. Of particular interest might be trends in the level and variability of farm and household incomes in primary industry sectors, and the extent to which incomes are supplemented by off-farm income. There may also be other economic and social factors that might influence the ability of resource managers to undertake improved natural resource management. The linkages between the regional economy and the rest of the world need to be examined so that the influence of external factors can be taken into account.

What data can/should be used?

The type of information necessary to include in the profile will be different for each of the regions, due to region specific characteristics and availability of data. However, there are still common elements of data that are useful to all regions. The following is therefore meant as a *guide* to the type of information which can be considered for inclusion. This is not exhaustive. Profiles should not be limited to this data, nor must all of this data be included. It is important for regional NRM bodies to spend some time considering their region and what data might be important to include. Some of these data suggestions might be unavailable and/or difficult to collect for some regions and therefore not able to be included.

The guiding principle should be that important data is identified and as much of this as time and resources permits, should be collected, interpreted and included so that a ‘picture’ of the region emerges to facilitate understanding and decision-making concerning natural resource management.

It is important to point out that just because a characteristic is ‘immeasurable’ does not mean that it should not be included in a profile. The aim of the profile is to gain a picture of the region – this should not be confined to statistics. It is important to include values, attitudes and priorities which are important to the community. These can simply be listed or discussed without assigning an economic value to them – it still helps to gain insight into the region. This information may be difficult to collect, particularly at a regional level. It may be necessary to break the region up into communities for some data collection and analysis in order to gain meaningful insights into the character of the whole region.

Sometimes it is appropriate to include information that has not been collected in a ‘valid’ manner, if it adds some perspective and value to the profile. This can be included as anecdotal evidence and may include information which is simply ‘known’ to locals but is unlikely to be identified, measured and included by an outside researcher. While regional NRM bodies should be careful as to the extent that they rely on such information and should clearly stipulate that it is simply anecdotal evidence, they should develop some confidence of its validity to inform decision-making.

It may also be helpful for regional NRM bodies to use *national* data where it is available, for comparison with *regional* data. This can assist in making the regional data more meaningful.

Suggested sources of data to include in social and economic profiles

Table 1 provides a list of regional/community characteristics that may be included in a social and economic profile, and possible/potential data sources. The Queensland Regional Bodies Information System (QRBIS) has been specifically developed for regional NRM bodies which includes some of the data in the following table, best fitted to regional areas. QRBIS is available for use by all regional NRM bodies. For other demographic and economic data, the Australian Census of Population and Housing, Basic Community Profiles provides useful information.

When deciding what to include in a regional profile, regional NRM bodies should ask: What information needs to be included to provide an ‘outsider’ with enough insight into our region to understand basic characteristics such as priorities, values and trends – especially those that will affect regional natural resource planning and management?

Gathering some of the data included in the following table is a challenging task, given resource, time and even methodology constraints, but not an impossible one over the course of time. While such comprehensive profiling may not be achievable for NRM plans in the short-term, building regional profiles should be an ongoing exercise. Regional NRM bodies should aim to eventually have a comprehensive regional profile which includes qualitative and quantitative information at the appropriate regional or community level. The profile should be dynamic and flexible allowing updating as data becomes available.

Accessible data should be sourced for NRM plan development, but gathering useful additional data should be part of a dynamic planning process.

Suggested characteristics

Attached is a table outlining potentially useful data sets that could be used in a profiling exercise and the rationale for their use.

It is important for regional NRM bodies to realise that while they may not necessarily have the power, or responsibility to influence many of these social and economic characteristics, it is vital that they understand them, and factor them wherever necessary, into decision-making.

Understanding the Table:

The table has been split into four columns. The first gives the data categories which regional NRM bodies can consider including in their profiles. The general groupings that these have been placed in are not absolute – many categories are equally relevant in other groupings.

The second column gives some indication of the time-frame that regional NRM bodies could expect to collect this data within. This column also provides some indication of the *priority* of a data characteristic for NRM planning – they are not listed in order of priority. The differences in time-frame are a result of availability of data – a data set may need to be collected by regional NRM bodies themselves and thus may be difficult in the short-term (due to funding and time constraints). Alternatively, given the increasing body of work being done on social and economic data collection, this paper does include data characteristics which may not be available yet but which we might expect could soon become available.

As an indication of time-frame, short-term data could be expected to be gathered either immediately or within the very near future; medium-term could take one to five years to either collect or become available through other means (eg. ABS); and long-term, could take

more than five years. The later includes data that may be important to know but for which there is no agreed methodology for its collection, or collection is time-consuming or expensive, making it difficult to collect in the near future. A good example of this is social capital data – methodologies are currently being developed for such data collection but are not widely agreed upon as yet. As mentioned above, compiling and using a profile should be an on-going exercise.

The third column gives some rationale for the inclusion of the data category, outlining why it might be useful for natural resource management. Again, this is not exhaustive. The purpose of the final column is to give regional NRM bodies some indication of where suggested data can be sourced. Again, this is not exhaustive and regional NRM bodies themselves will have ideas for data sources in addition to these. If the data can be found in QRBIS this is indicated in this column.

Table 1: Suggested Data and Sources for Social and Economic Profiles

Characteristic	Aim and Priority	Why Include?	Potential sources of data
<p>Demographic</p> <ul style="list-style-type: none"> ➤ Population ➤ Population distribution ➤ Population projections ➤ Age distribution ➤ Areas of concentration, total population ➤ Fertility rate 	<p>Short-term High Priority</p>	<ul style="list-style-type: none"> - Identifies population dependent on resource base. - Understanding urban versus rural population helps us to understand where people are living which has impacts on a variety of issues for NRM. - Provides information on potential future workers and dependents. - Areas that are remote may have less access to services/ employment. 	<p>In QRBS:</p> <ul style="list-style-type: none"> ▪ Estimated Resident Population ▪ Population Projections ▪ Age Distribution <p>Other: LGA profiles and community profiles containing demographic data can be found at: http://www.oesr.qld.gov.au/views/regional/reg_pro/regpro_fs.htm These are not fitted to regional NRM body boundaries but are useful.</p> <p>The Planning Information and Forecasting Unit provides population information. www.dlqp.qld.gov.au</p>
<p>Population Movement</p> <ul style="list-style-type: none"> ➤ Mobility ➤ Mobility (1 year) by age ➤ New Arrivals ➤ Youth net migration 	<p>Short-term Medium Priority</p>	<ul style="list-style-type: none"> - Retention of youth seems to be overriding aim for rural communities as this indicates the potential future population and workers. 	<p>In QRBS:</p> <ul style="list-style-type: none"> ▪ Same address or different address for 1 and 5 years by sex
<p>Housing</p> <ul style="list-style-type: none"> ➤ Dwelling structure ➤ Housing tenure <ul style="list-style-type: none"> - Dwellings fully owned - Dwellings being purchased - Dwellings rented 	<p>Short-term Medium Priority</p>	<ul style="list-style-type: none"> - Availability of housing related to employment. - Housing also impacts on and is an indicator of wealth. - Higher level of renters may indicate lower socio-economic status. 	<p>In QRBS:</p> <ul style="list-style-type: none"> ▪ Households owning, purchasing or renting homes <p>ABS: The ABS has developed SEIFA indexes to allow ranking of regions/areas, These include an <i>Index of Economic Resources</i>. Variables for this index include those relating to income, expenditure and assets of families, such as family income, rent paid, mortgage payments, and dwelling size. Info. can be found at: http://www.abs.gov.au/websitedbs/D3110124.NSF/0/a17dc48d988ecf63ca256dad00005ea3?OpenDocument</p>

Table 1: Suggested Data and Sources for Social and Economic Profiles

Characteristic	Aim and Priority	Why Include?	Potential sources of data
<p>Households</p> <ul style="list-style-type: none"> ➤ Household size ➤ Couple families without children ➤ One parent households ➤ Lone person households ➤ Group households 	<p>Short-term Medium Priority</p>	<ul style="list-style-type: none"> - Family pressure may reduce time for NRM. - Income related to family structure. Succession for families without children may be an issue. - Families without children may hold less bequest values. 	<p><i>Basic Community Profile</i> ABS Cat No 2001.0, Tables B14, B17 and B32</p>
<p>Employment</p> <ul style="list-style-type: none"> ➤ Employment by gender ➤ Employment by age ➤ Employment by industry ➤ Unemployment rate ➤ Occupation ➤ Regional diversification index (Industries employing >80% of people in a region) 	<p>Short-term High Priority</p>	<ul style="list-style-type: none"> - Importance of various industries. - Importance of the various types of agricultural land use sectors. - Diversification in employment is an indicator of the ability to cope with change - Understand impacts of changes in NRM via the linkages between employment and agriculture and the flow on to regional impacts. - Unemployment indicates the available workforce, potential migrants and the potential for off-farm work. - The social effects of regional and industry restructuring are reflected in employment. 	<p>In QRBS:</p> <ul style="list-style-type: none"> ▪ Employment by industry ▪ Employment by Occupation (to 4 digit) ▪ Labour Force (employed, unemployed, labour forces, not in labour force by sex) <p>ABS: The ABS has developed indexes to allow ranking of regions/areas, providing a method of determining the level of social and economic well-being in that region. These include: <i>Index of Education and Occupation</i> - This index includes variables relating to the educational and occupational characteristics of communities, such as the proportion of people with a higher qualification or those employed in a skilled occupation. Info. can be found at: http://www.abs.gov.au/websitedbs/D3110124.NSF/0/a17dc48d988ecf63ca256dad00005ea3?OpenDocument</p> <p>LGA profiles and community profiles containing employment and industry data can be found at: http://www.oesr.qld.gov.au/views/regional/reg_pro/regpro_fs.htm. These are not fitted to regional NRM body boundaries but are useful.</p>

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Characteristic	Aim and Priority	Why Include?	Potential sources of data
<p>Education</p> <ul style="list-style-type: none"> ➤ Education institution attending ➤ Highest level of Schooling ➤ Qualifications – level of education ➤ Qualification – Field of study ➤ Participation in recent training ➤ Use of the internet by % of households 	<p>Short-term Medium Priority</p>	<ul style="list-style-type: none"> - Linkages between education and capacity to undertake NRM. Higher levels of education may lead to better management practices or diversification. - Can be related to access through provision of facilities in regions. - Important to consider for delivery of information with higher education providing more opportunity for delivery through written communication. - Availability of internet reflect services available. Also, important to understand for information provision. 	<p><i>Basic Community Profile</i> ABS Cat No 2001.0, Tables B11, B12, B23, B24.</p> <p>LGA profiles and community profiles containing education data can be found at: http://www.oesr.qld.gov.au/views/regional/reg_pro/regpro_fs.htm. These are not fitted to regional NRM body boundaries but are useful.</p>
<p>Income</p> <ul style="list-style-type: none"> ➤ Individual Income ➤ Household income ➤ Household income by type of farming ➤ Overview of farm incomes, trends and social conditions 	<p>Short-term Medium Priority</p>	<ul style="list-style-type: none"> - Lack of income is constraint for NRM. - High-income communities more viable. 	<p>In QRBS: <ul style="list-style-type: none"> ▪ Weekly Individual Income by age and by sex Other: <i>Basic Community Profile</i> ABS Cat No 2001.0, Household income, Table 31 DPI Farm Financial Counsellors and Community Financial Counsellors may be able to provide an overview of financial information on the rural sector</p>
<p>Farm family financial characteristics</p> <ul style="list-style-type: none"> ➤ Farm family income ➤ Off farm income ➤ Profit at full equity ➤ Equity Ratio ➤ Rate of Return 	<p>Short-term Medium Priority</p>	<ul style="list-style-type: none"> - Provides information of the economic viability of properties and hence ability to provide resources and time for NRM. 	<p><i>To be added to QRBS, 2004</i> Australian Bureau of Agricultural and Resource Economics (ABARE) AgSurf website – regional only. http://www.abareconomics.com/farmsurveys/agsurf.html</p>

Table 1: Suggested Data and Sources for Social and Economic Profiles

Characteristic	Aim and Priority	Why Include?	Potential sources of data
<p><i>Farm family financial characteristics cont...</i></p> <ul style="list-style-type: none"> ➤ Include employment of non-family labour ➤ Debt servicing ratio ➤ Value of land and fixed improvements 		<ul style="list-style-type: none"> - Identifies the cost structure for differing agricultural sectors and their ability to cope with changes in input and output prices. 	
<p>Regional Economic Production</p> <ul style="list-style-type: none"> ➤ Agricultural Sector (and sectors within agriculture) ➤ Mining sector ➤ Manufacturing sector ➤ Service sector ➤ Relative importance of different sectors ➤ Economic Diversity 	<p>Short-term High Priority</p>	<ul style="list-style-type: none"> - Understanding of the contribution of the differing sectors to regional economy. Hence, understand sectors most likely to be impacted on with respect to NRM. - Linkages of agriculture to other sectors to estimate flow on effects. 	<p>In QRBIS:</p> <ul style="list-style-type: none"> ▪ Gross Regional Product ▪ Production and Value
<p>External Linkages</p> <ul style="list-style-type: none"> ➤ % of regional income dependent on exports ➤ Trends in world prices for commodities produced ➤ Terms of Trade 	<p>Short-term Medium Priority</p>	<ul style="list-style-type: none"> - Importance of external factors both for regional economy and constraints on landholders (suffering cost squeeze as price takers). - Openness of region important to understand dependency on world markets and the potential resilience to shocks. - More flexibility for diversification if not export dependent. 	<p>ABARE – Australian Commodities (quarterly), Australian Commodity Statistics (annual) – National level data</p>

Table 1: Suggested Data and Sources for Social and Economic Profiles

Characteristic	Aim and Priority	Why Include?	Potential sources of data
<p>Indigenous</p> <ul style="list-style-type: none"> ➤ Indigenous population ➤ Indigenous age profile ➤ Life expectancy ➤ Criminal justice rates ➤ Education and employment data ➤ Community Development Program ➤ Employment Program ➤ Income ➤ Economic aspirations ➤ Poverty levels ➤ Household and family data ➤ Internal Indigenous relationships (if supported by TOs) ➤ Relationships between Indigenous community and external society (if supported by TOs) ➤ Relationship between Indigenous community and the landscape (if supported by TOs) ➤ Landscape aspirations ➤ Map land held by traditional owners ➤ Map Indigenous groups 	<p>Short-long Term; High Priority</p>	<ul style="list-style-type: none"> - Indigenous people are a stakeholder group with particular dependency on and cultural needs to access natural resources, therefore important to understand their population dynamics; - Indigenous custodianship, successful native title claims and pending claims, and presence of sacred sites have important implications for NRM; - An understanding of the location and size of various Indigenous groups with traditional ties to land is important for NRM. 	<p>In QRBS:</p> <ul style="list-style-type: none"> ▪ Labour Force – Indigenous ▪ <i>Additional Indigenous data from the 2001 census will be added to QRBS 2004</i> <p><i>Indigenous Profile, ABS Cat No 2002.0</i></p> <p><i>Population Distribution: Aboriginal and TSI Australians, ABS Cat No 4705.0</i></p> <p><i>The health and welfare of Australia’s Aboriginal and TSI peoples, ABS Cat No 4704</i></p> <p><i>Housing and Infrastructure in Aboriginal and TSI Communities, ABS Cat No 4710.0</i></p> <p>LGA profiles and community profiles containing Indigenous data can be found at http://www.oesr.qld.gov.au/views/regional/reg_pro/regpro_fs.htm These are not fitted to regional NRM body boundaries but are useful.</p> <p>NPWS, EPA – will have information on Indigenous history, sacred sites, engagement and participation in NRM etc.</p> <p>Local Indigenous groups should be contacted for assistance with gathering Indigenous information. It is imperative that Indigenous peoples be included in the NRM process. Refer to “<i>Guidelines for involving Aboriginal and Torres Strait Islander people in: the establishment of NRM bodies; and the development of the regional NRM plan and investment strategy</i>”. This can be accessed at:</p>

Table 1: Suggested Data and Sources for Social and Economic Profiles

Characteristic	Aim and Priority	Why Include?	Potential sources of data
<p>Indigenous cont...</p> <ul style="list-style-type: none"> ➤ Traditional owner populations, including % living in region ➤ Map language groups (if appropriate) ➤ Map Native Title ➤ List of sacred and cultural sites (if supported by TOs) 			<p>http://www.regionalnrm.qld.gov.au/planning/guidance/guidance_pdf/indigenous_final.pdf</p> <p>Regional Anthropological studies – contact Universities for information on anthropologists actively researching the area; desktop research into geographically relevant publications.</p>
<p>Cultural diversity</p> <ul style="list-style-type: none"> ➤ Place of Birth ➤ Language spoken at home ➤ Language spoken at home by age ➤ Language spoken at home by proficiency in English ➤ Proficiency in English by age and gender 	<p>Short Term; Medium Priority</p>	<ul style="list-style-type: none"> - Ability to understand communication written/spoken in English regarding NRM. - Cultural differences in farming style may be relevant. 	<p>In QRBIS:</p> <ul style="list-style-type: none"> ▪ Place of Birth ▪ Languages spoken at home
<p>Land tenure</p> <ul style="list-style-type: none"> ➤ Freehold ➤ Types of leases ➤ Crown land ➤ National Park ➤ Indigenous 	<p>Short, medium and long term; High priority</p>	<ul style="list-style-type: none"> - How land is held is fundamental to understanding management practices; - identification of stakeholder groups by property right facilitates planning for NRM. - links with native title and cultural and sacred site mapping 	<p>Queensland Department of Lands land tenure maps, Regional plans and local government plans and data</p>

Table 1: Suggested Data and Sources for Social and Economic Profiles

Characteristic	Aim and Priority	Why Include?	Potential sources of data
<p>Natural and physical infrastructure</p> <ul style="list-style-type: none"> ➤ Important natural resources of the region ➤ Areas of national or international significance ➤ Important tourist sites/attractions ➤ Visitor number/guest nights to region 	<p>Short-Medium term; Medium Priority</p>	<ul style="list-style-type: none"> - The natural resource base provides employment and income, and may be the basis for tourism development a fast growing industry. - Tourism in Queensland is often based on natural environment therefore its important to understand interdependencies; - Important to understand the relationships between inland and coastal tourism, and where it is most focused; - Different types of tourist experiences have varying impacts on the natural environment; - Tourism may present an alternative income generator; - It is necessary to protect important tourist sites in NRM planning; - Level of tourism gives some indication of attitude towards environmental values; - Tourism is often a less impactful use of natural resources. 	<p>In QRBS:</p> <ul style="list-style-type: none"> ▪ Accommodation Establishments (regional level only) <p>Other:</p> <p>Tourism Queensland compiles regional tourism trend updates for 14 tourism regions. These are not directly conformed to RB boundaries but still offer important information on trends and attractions. http://www.qttc.com.au/research/index.htm</p> <p>Queensland Regional Tourist Organisations – regionally based organisations which can assist in identifying tourist attractions of the region and tourism trends. Again, these are not conformed directly to RB boundaries, but are still useful. http://www.qttc.com.au/hwctny/rto.htm</p> <p>Bureau of Tourism Research – a joint state and federal government agency responsible for providing statistics and analyses on tourism to aid industry and government decision-making. http://www.btr.gov.au</p> <p>Tourism Council Australia – represents the interests of industry at all levels of government and provides a tourism perspective in private and public sector consultations, inquiries and forums. http://www.tourism.org.au/pr.html</p> <p>Local government websites will usually have the tourist attractions of the area. The LGAs in the region can be combined to give a full picture of the region.</p>

Table 1: Suggested Data and Sources for Social and Economic Profiles

Characteristic	Aim and Priority	Why Include?	Potential sources of data
<p>Natural Resource Management Data</p> <ul style="list-style-type: none"> ➤ Expenditure by year\ and compared with other regions under NHT1, Envirofund and other sources ➤ Trends in number of projects funded by above ➤ Membership of Landcare groups as percentage of total <ul style="list-style-type: none"> - Funding of Landcare groups ➤ Understanding of and general attitudes towards NRM ➤ Level and mode of participation in regional planning exercise ➤ Prepared property management plans ➤ Catchments with water management plans ➤ Involvement in conservation agreements ➤ Uptake of incentives used 	<p>Medium-Long Term; High Priority</p>	<ul style="list-style-type: none"> - Understanding current engagement in NRM management can increase our understanding of community willingness and capacity; - An understanding of the level of funding currently being expended, and where, might inform management targets and influence the allocation of funds; - Membership of Landcare has been shown (NLWRA) to be related to improved NRM; - The likelihood of success of programs can be understood by knowing previous experiences with NRM; - Actions already being undertaken can guide NRM decisions; - Knowing the level of extension support can help adoption of good NRM; - Resource planning by other stakeholders should guide regional NRM body planning processes - Knowing the extent and location of conservation agreements should guide the planning process; - Knowing the type of incentive programs that landholders are accessing can provide some guidance on the types of programs which work to change behaviour; 	<p>ABARE-Resource Management Survey 1998/99. http://www.abareconomics.com/ame/lrm/lrmalt.asp</p> <p>Local Landcare groups can give some indication of involvement in NRM, participation rates, and attitudes generally</p> <p>Short surveys with a sample of landholders can collect most of this data and give a reasonable picture of NRM involvement.</p> <p>Envirofund may have relevant data regarding involvement in the ‘Care’ programs</p> <p>EPA may be able to provide information on conservation area etc</p> <p>Community groups such as CWA, may give some indication of women’s involvement in NRM</p> <p>The Queensland Rural Adjustment Authority may be able to provide long-term data on drought declaration. http://www.qraa.qld.gov.au/</p> <p>Water Management Planning information from NRM&E</p> <p>Conservation Agreements information from EPA</p> <p>Statutory Covenants information from EPA</p> <p>LGAs for rate remission schemes and conservation agreements</p>

Table 1: Suggested Data and Sources for Social and Economic Profiles

Characteristic	Aim and Priority	Why Include?	Potential sources of data
<p>Natural Resource Management Data cont...</p> <ul style="list-style-type: none"> ➤ Natural heritage (e.g. nature conservation, possibly expressed as % of land area) ➤ Years LGA declared in drought ➤ No. of drought assistance applications ➤ LGA rate remission schemes and conservation agreements <p>Comparison of above with adjacent or similar regions</p>		<ul style="list-style-type: none"> - Drought declaration can give some indication of the condition of land, and the preparedness of farmers to deal with climatic conditions. 	
<p>Social Infrastructure</p> <ul style="list-style-type: none"> ➤ Major and urban centres of region, and locality ➤ Health services, such as no. of hospitals, no. of GPs / person, no. of community health centres ➤ Community services: eg. childcare facilities; youth services; recreational facilities; libraries; schools; education institutions; 	<p>Medium term; Low-Medium Priority</p>	<ul style="list-style-type: none"> - Poorly resourced communities are often suffering socially as they struggle for access to basic services. These communities often do not have the social capital to effectively deal with NRM issues; - If we know the resources which are lacking then we can assist in maintaining and supporting regional communities so they can get on with good NRM; - We can identify those places where people gather, and therefore potentially identify targets for 	<p>For listings and details of health facilities see http://www.health.qld.gov.au/hospitals/default.asp#search</p> <p>Health district profiles can be found at the Queensland Health website. These are not concorded to regional NRM body boundaries. http://www.health.qld.gov.au/hospitals/district_profiles/default.asp</p> <p>Very basic community profiles on the Queensland Health website might also be useful http://www.health.qld.gov.au/hospitals/community_profiles/default.asp</p>

Table 1: Suggested Data and Sources for Social and Economic Profiles

Characteristic	Aim and Priority	Why Include?	Potential sources of data
<p>Social Infrastructure <i>cont...</i></p> <ul style="list-style-type: none"> ➤ Banks; post offices; police stations/staff; access to IT; transport; churches; shopping facilities; community and arts centres ➤ Local governments ➤ State/Australian govt. agency presence and investment in region ➤ Movements of major facilities (e.g. are banks coming or going?) 		<p>engaging people with NRM; - Access to information technology can tell us whether or not web-based information is useful.</p> <p>- Whether or not facilities such as banks are coming or going from the community gives us some indication of the overall economic vitality and health;</p>	<p>LGA websites are a good source of information about infrastructure – libraries, police stations, churches, shopping, community centres and services, health services and facilities, tourist attractions, recreational facilities and demographic data. Many have community or social profiles for their LGA. Compiling the data from all of the LGAs can give an excellent insight into the region.</p> <p>Education Queensland can provide the number and location of schools: http://education.qld.gov.au/schools/directory/</p> <p>Contact agencies (DPI&F, DNRM&E, and EPA) for information.</p> <p>Surveys to determine community attitudes towards service provision, and anecdotal evidence collected on the perceived movement of facilities such as banks.</p>
<p>Industrial infrastructure</p> <ul style="list-style-type: none"> ➤ Manufacturing establishments, e.g. farm machinery ➤ Processing establishments, e.g. sugar mills ➤ Other small business 	<p>Short-medium term; Medium priority</p>	<p>- Links with the primary production base and the generation of employment</p>	<p>Regional and shire planning documents, and ABS employment statistics</p>
<p>Social capital</p> <ul style="list-style-type: none"> ➤ Community values, priorities and expectations ➤ Commonality of values and goals 	<p>Short-Long Term; High Priority</p>	<p>- Understanding the values and priorities that a community and/or region has, gives an understanding of how highly they value NRM and therefore some indication of how</p>	<p>The community engagement process should uncover community values, priorities and expectations. This should be comprehensive to ensure that the community is fully engaged.</p>

Table 1: Suggested Data and Sources for Social and Economic Profiles

Characteristic	Aim and Priority	Why Include?	Potential sources of data
<p>Social capital cont...</p> <ul style="list-style-type: none"> ➤ History of previous community stressors and conflict (e.g. development, threat of industry/employment changes, threats to schools and services etc) ➤ Quality of life indicators eg. pollution exposure; health statistics 	<p>Short Term; Medium Priority</p> <p>Medium Term; Low Priority</p>	<p>as a result of limited power;</p> <ul style="list-style-type: none"> - knowing sub-communities identifies impacts of policy change which is often experienced at this level rather than at a regional level. - information concerning any previous stressors allows us to understand how community might react to more change; what issues are important to them; the differing values between sectors; and what sectors of society are particularly vulnerable to change. - gives us insight into general well-being, and therefore some indication of capacity to deal with NRM. 	<p>St Vincent’s run a program called ‘Bush Connection’ to help rural families in times of crisis. They may be able to provide some understanding of stressors facing communities http://www.bushconnection.org.au/default.htm</p> <p>Current and completed developments in regions can be accessed at: http://www.oesr.qld.gov.au/views/regional/reg_pro/regpro_fs.htm These are not concorded to regional NRM body boundaries but are useful.</p> <p>Local councils will also have records of past developments</p> <p>Many local councils have done community well-being or social capital studies measuring various indicators of social health.</p> <p>Queensland health district profiles can be found at the Queensland Health website. These are not concorded to regional NRM body boundaries but are useful. http://www.health.qld.gov.au/hospitals/district_profiles/default.asp</p>
<p>Social fragmentation</p> <ul style="list-style-type: none"> ➤ Alcoholism ➤ Child abuse ➤ Domestic violence ➤ Crime statistics ➤ Disability profile 	<p>Medium Term; Medium Priority</p>	<ul style="list-style-type: none"> - Reflects the degree to which the community and/or the individuals within it are facing stress from a range of sources, which in combination with other factors can tell us their current capacity to deal with NRM. 	<p>Crime profiles for LGAs can be accessed on http://www.oesr.qld.gov.au/views/regional/regional_fs.htm?crime_pro/crime_pro_main.htm~main These are not concorded to regional NRM body boundaries but are useful.</p> <p>Sources of data on domestic violence can be found at:</p> <ul style="list-style-type: none"> - police records: callouts to incidents of domestic violence - courts data: applications for protection orders; breaches of

Table 1: Suggested Data and Sources for Social and Economic Profiles

Characteristic	Aim and Priority	Why Include?	Potential sources of data
<p><i>Social fragmentation cont...</i></p> <ul style="list-style-type: none"> ➤ Local conflicts ➤ Percentage of population, mobile ➤ Distribution of wealth ➤ Identification of minority groups ➤ Identification of 'at risk' groups ➤ Level of family and community support in time of crisis ➤ Level of social exclusion ➤ Access to other regions/communities 	<p>Medium Term; High Priority</p> <p>Medium Term; Medium Priority</p> <p>Medium Term; High Priority</p> <p>Long Term; Medium Priority</p> <p>Long Term; High Priority</p>	<ul style="list-style-type: none"> - Knowing the stressors being faced and the degree to which this is fragmenting the community allows us to know how to best approach this community. - Gives indication of employment availability; - To understand dynamics of population change and age structure. - Allows us to identify vulnerable sectors of society who may need to be targeted for engagement. - Knowing the level of support that individuals have gives insight into their capacity to deal with increased stress. - Very isolated communities and/or individuals tend to be more limited in access to support, services and, importantly, information and skill sharing, which can impact on their capacity to engage with NRM. 	<ul style="list-style-type: none"> - protection orders; criminal charges - emergency accommodation: numbers of women and children accessing refuges - child protection services data: numbers of matters where domestic violence is an issue - health data: hospital admissions; presentation to emergency departments. <p>Disability Services Queensland provide basic disability profiles for Disability Service Regions at: http://www.disability.qld.gov.au/publications/annualreport2002/regional_profile.cfm only marginally useful as the regions are not aligned with regional NRM body boundaries.</p> <p>The ABS has developed SEIFA indexes to allow ranking of regions/areas, These include: Index of advantage/disadvantage, which is a continuum of advantage to disadvantage and is available for both urban and rural areas. It takes into account variables such as the proportion of families with high incomes, people with a tertiary education, and employees in skilled occupations. The Index of Disadvantage, is derived from attributes such as income, educational attainment, unemployment, and dwellings without motor vehicles. In particular it focuses on low income earners, relatively lower educational attainment and high unemployment. Info. can be found at: http://www.abs.gov.au/websitedbs/D3110124.NSF/0/a17dc48d988ecf63ca256dad00005ea3?OpenDocument</p> <p>Qualitative surveys can be conducted exploring people's feelings of safety, involvement, acceptance, tolerance etc.</p>

Pulling it all together

While this document's emphasis has been on data gathering, the fundamental purpose of a profile is to inform natural resource management. Therefore, 'pulling it all together', to understand what the profile means for natural resource management is the most important step in the profiling process. That is, after compiling the profile, regional NRM bodies need to consider how the social and economic characteristics they have identified might affect natural resource management.

A number of questions need to be asked to understand how social and economic characteristics might influence natural resource management. Possible questions and examples of hypothetical answers are given below to guide regional NRM bodies in the interpretation of their profiles. These examples are based on a limited number of indicators however, the aim is to consider the 'big picture', using as many indicators as possible.

- *What does the profile tell us about the potential in the community to embrace opportunities resulting from meeting resource condition targets?*

If the profile reveals high income levels and agricultural diversification, then this might suggest an existing capacity to help meet resource condition targets. Alternatively, economic hardship as indicated by employment, income and farm financial characteristics might suggest a reduced capacity to react positively to diversification opportunities. On the other hand, economic hardship might actually mean that the region is receptive to opportunities which might reverse these trends.

- *What does the profile tell us about the community's stability and resilience if there are major (or minor) economic changes? For example, which sectors might be the most susceptible to impacts from natural resource management?*

If a natural resource management decision threatens the livelihood of, or potentially may lead to economic changes for a particular industry, then indicators such as employment by industry should reveal those sectors of the region which are directly or indirectly dependent on that industry. It can then be determined where positive or negative impacts might be felt, and how best to mitigate or promote those impacts.

- *What does the profile tell us about the economic dependency of the region on the various industry sectors? How does this relate to natural resource management actions?*

If regional economic production is dominated by the mining sector but employment dominated by the agricultural sector then the effects of improved natural resource management may not effect overall regional economic viability. However, there may be important social and economic impacts within the agricultural sector that need to be addressed within the natural resource management plan.

- *What does the profile tell us about the financial capacity of landholders to undertake natural resource management change?*

If farm family income shows a variable but downward decline then it may indicate a dependency on (declining) world commodity prices or the effects of seasonal variation. Farm families in this situation may have fewer resources to devote to natural resource management. Therefore, extra incentives may be needed for lower income farm families to undertake change.

- *Have trends in the unemployment rate been influenced by natural resource condition trends?*

If there is a trend for increased unemployment in a region which is dependent on the agricultural sector, this may indicate declining value or volume of production. This could be a result of world prices, drought or land degradation. As a result further population may be lost from the area and the potential for off farm work reduced.

- *What does the profile tell us about the community's capacity to change to more sustainable practices?*

Low participation rates in land care groups, a lack of property planning and uptake of incentives for natural resource management, as well as a reliance on drought assistance suggests a reduced willingness and capacity to change to sustainable practices. If the profile reveals high participation rates in volunteer organisations particularly natural resource management groups, and community values which favour sustainable land management, then the community's capacity is likely to be higher.

- *What does the profile tell us about the most appropriate mechanisms to promote change?*

If the profile reveals high participation in a community-based natural resource management group, then this suggests an opportunity to promote a change in practices through this group. Additionally, if the profile reveals limited access to the internet, then clearly internet-based attempts to promote change would not be appropriate.

- *What does the profile tell us about the community's capacity to participate in community based natural resource management?*

If the profile reveals that the community is faced with poor social infrastructure such as transport and childcare facilities, and/or a predominance of single parent households, then combined with other indicators, it might suggest that sectors of the community are not in a position to actively participate in community-based natural resource management. This might suggest that in order to encourage full participation, organisers might have to provide transport to meetings and childcare facilities.

The above are examples of how the profile might be used to inform natural resource management for regional NRM bodies. There are a range of other social and economic indicators included in the table above, which can be used to draw conclusions and inferences for natural resource management.

Contacts:

For further information and assistance on putting a profile together and how the profile may aid natural resource management decision-making please contact Jeanette Stanley (07 32247741) or Beth Clouston (07 32247734) at the Department of Natural Resources, Mines and Energy, for social and economic advice respectively.