

Project Order, Variations and Research Progress

Project Title: Impacts of CSG mining on communities in the Western Downs: How features, resources and strategies of a community affect its functioning and well-being

This document contains three sections. Click on the relevant section for more information.

- Section 1: [Research Project Order as approved by the GISERA Research Advisory Committee and GISERA Management Committee before project commencement](#)
- Section 2: [Variations to Project Order](#)
- Section 3: [Progress against project milestones](#)



1 Original Project Order



Project Order

Proforma 2011

1. Short Project Title (less than 15 words)

Project S2: Community functioning and well-being

Long Project Title	Impacts of CSG mining on communities in the Western Downs: How features, resources and strategies of a community affect its functioning and well-being.
GISERA Project Number	S2
Proposed Start Date	7 June 2012
Proposed End Date	June 2015
Project Leader	Rosemary Leonard

2. GISERA Research Program

- Biodiversity Research
 Marine Research
 Land Research
 Water Research
 Social & Economic Research

3. Research Leader, Title and Organisation

Rosemary Leonard
Senior Research Scientist
Social & Behavioural Sciences Group
CSIRO

4. Summary (less than 300 words)

The project will provide an in-depth understanding of the functioning and well-being of a community affected by coal seam gas (CSG) extraction. It will identify not only stressors that present a risk for well-being but also benefits for community functioning. For the future, the project aims to identify how functioning and well-being might be improved and the indicators necessary to measure progress towards improvements. Qualitative methods

(interviews, focus groups and use of existing archives) will be used to obtain in-depth understanding of a particular community and a quantitative survey will provide insights into a wider region. The town of Chinchilla and surrounds is the focus of the in-depth study because it encapsulates most of the key dynamics (e.g. rapid growth given its size, housing shortage, stress on roads and other infrastructure, concern by local farmers, DIDO workers nearby). The wider region is the Western Downs Regional Council area which has Dalby as its regional centre and a number of smaller communities involved in CSG development. By linking with Projects 1 and 3 it will take into account the profile of this particular region and compare it to other CSG development regions. By linking with Project 5, it will link strategies for better functioning and well-being to community aspirations. Outcomes of the project will be the identification of strategies that can be undertaken by the communities, CSG developers and local and State governments to enhance community functioning and well-being.

5. Budget Summary (From Excel Budget Pack worksheet "Project Plan Summary")

Expenditure	2011/12 Year 1	2012/13 Year 2	2013/14 Year 3	2014/15 Year 4	2015/16 Year 5	Total
Labour	-	147,794	144,171	73,591		365,556
Operating	-	20,000	20,000	11,882		51,882
Total Costs	-	167,794	164,171	85,473		417,438
CSIRO		167,794	164,171	85,473		417,438
Total Expenditure		167,794	164,171	85,473		417,438

Expenditure per Task	2011/12 Year 1	2012/13 Year 2	2013/14 Year 3	2014/15 Year 4	2015/16 Year 5	Total
Task 1		167,794	164,171	85,473		417,438
Total Expenditure		167,794	164,171	85,473		417,438

Cash Funds to Project Partners	2011/12 Year 1	2012/13 Year 2	2013/14 Year 3	2014/15 Year 4	2015/16 Year 5	Total
CSIRO		81,299	183,032	27,876		292,207
Total Cash to Partners		81,299	183,032	27,876		292,207

Source of Cash Contributions	2011/12 Year 1	2012/13 Year 2	2013/14 Year 3	2014/15 Year 4	2015/16 Year 5	Total
GISERA		81,299	183,032	27,876		292,207
Total Cash Contributions		81,299	183,032	27,876		292,207



In-kind Contribution from Partners	2011/12 Year 1	2012/13 Year 2	2013/14 Year 3	2014/15 Year 4	2015/16 Year 5	Total
CSIRO		86,495	-18,861	57,597		125,231
Total Cash Contributions		86,495	-18,861	57,597		125,231

	Total Finding over all years	Percentage of total Budget
GISERA	292,207	70%
CSIRO	125,231	30%
Other		
Total Project budget	417,438	100%

Task	Milestone Number	Milestone Description	Funded by	Participant Recipient	Start Date (mmm-yy)	Delivery Date (mmm-yy)	Fiscal Year	Fiscal Quarter	Payment \$
Task 1	1	Project set up, ethics submitted, recruitment	GISERA	CSIRO	Sep-12	Dec-12	2012/13	Quarter 2	33,283.71
Task 1	2	Literature review & Identification of relevant CFWB indicators; article1 submitted	GISERA	CSIRO	Sep-12	Mar-13	2012/13	Quarter 3	82,857.14
Task 1	3	Community Storylines: archival search, focus groups article2 submitted	GISERA	CSIRO	Mar-13	Sep-13	2013/14	Quarter 1	86,694.29
Task 1	4	Survey of Community Functioning and Well-being	GISERA	CSIRO	Sep-13	Dec-13	2013/14	Quarter 2	74,780.00
Task 1	5	Social inclusion analysis	GISERA	CSIRO	Jan-14	Mar-14	2013/14	Quarter 3	42,857.14
Task 1	6	Follow ups to community story-lines and survey; article 3 submitted	GISERA	CSIRO	Jan-14	Jun-14	2013/14	Quarter 4	57,142.86
Task 1	7	Final write up; article 4 submitted	GISERA	CSIRO	Jul-14	Mar-15	2014/15	Quarter 3	39,822.86

6. Other Researchers

Researcher	Time Commitment (project as a whole)	Principle area of expertise	Years of experience	Organisation
Rosemary Leonard	0.26 FTE	Social capital, social psychology & mixed method research	>20	CSIRO
Rod McCrea	0.71 FTE	Subjective wellbeing & quantitative methods	5	CSIRO
Post doctoral fellow	0.95 FTE	Social psychology or community development	>3	CSIRO
PhD student	2.00 FTE	Social psychology or community development	>1	CSIRO

7. GISERA Objectives Addressed

Research that improves and extends knowledge of social impacts and opportunities of CSG-LNG projects, enabling the CSG-LNG industry to better meet the expectations of relevant communities and the broader public.

Informing government, regulators and policy-makers on key issues regarding policy and legislative framework for the CSG-LNG industry.

8. Program Outcomes Achieved

Details are provided in *Section 13. Project Objectives and Outputs*.

9. Program Outputs Achieved

Details are provided in *Section 13. Project Objectives and Outputs*.

10. What is the knowledge gap that these research outputs will address?

Community well-being is complex and multi-faceted, difficult to operationalise, and always tied to local conditions. This project aims to identify, understand and measure community functioning and well-being in the context of an expanding CSG-LNG industry in southern Queensland, which is prerequisite knowledge for facilitating community functioning and well-being in this context.

We use the phrase ‘community functioning and well-being’ (CFWB) here to denote our focus of interest in this project, and the close interdependence between ‘well-being’ as an outcome and ‘functioning’ as a process leading to that outcome. (It is also important to consider aspects of functioning as vital indicators of well-being, and well-being as part of regular functioning.)

Because of the *in situ* dependence of CFWB on local conditions, it is impossible to specify a definitive set of constructs and variables that the project will examine. Rather, the constructs

and variables must be allowed to emerge from our initial examinations of communities. However, the following issues are likely to be important:

- Relationships between communities and gas developers
- Community leadership and influence networks
- Social capital
- Social infrastructure (e.g. neighbourhood centres)
- Sense of place and attachment to location
- Patterns of social inclusion and exclusion arising from demographic shifts (e.g. from the use of FIFO workers and 457 Visa workers).

11. How will these Research outputs and outcomes be used by State Government and other managers?

They will help to inform government, regulators, policy-makers and industry on key issues regarding the functioning and well-being of communities affected by the CSG-LNG industry. This will assist organisations like the Western Downs Regional Council; the Queensland GasFields Commission, the Coordinator General and industry to identify priority areas of unmet community need. It will also enable particular successes to be identified, understood and generalised. By this means, the project will identify strategies that can be enacted by local and state government and industry to reduce stresses associated with rapid change and also to take advantage of opportunities arising from resource developments. For example, such strategies may be incorporated into the stakeholder engagement plans for Social Impact Assessments.

12. Project Development (1 page max.)

The project was developed according to the GISERA's nine-stage research project development process (<http://www.gisera.org.au/documents/research-development-process.pdf>).

Major resource developments pose many challenges for communities. The extent to which a community thrives or fractures depends on prior features and resources of the community, including: the ways in which developments are progressed in the community; the size and rapidity of change; changes in the community's demographic characteristics; and much else besides.

The CSG industry has become the focus of a great deal of media attention and political action. Although much popular media coverage might suggest strong and unified opposition to the industry, more considered media coverage reveals a far more complex picture with a range of points of view even from those with similar social roles. It is therefore not immediately obvious how best to facilitate community functioning and well-being in the present time of rapid change and divergent perspectives.

As the development is for a defined time only, actions must be taken early to plan and secure the community's responses to change. This project is framed to consider both shorter-term (the next 40 years) and longer-term consequences of CSG developments for affected communities, encapsulating the future of communities beyond the gas industry exit

(ca 2050) and the importance of long-term strategic planning to ensure the vitality of communities beyond 2050.

The project is designed to investigate how features, resources and strategies of a community affect its functioning and well-being. Understanding these linkages will allow strategic investments to be made that will enhance community functioning and well-being, both in the context of an expanding CSG industry and over the longer term.

1.3. Project Objectives and Outputs

The project will provide a fuller understanding of how communities respond to major developments within their region, the resources and strategies necessary for enhancing community responses, and the principal indicators of community functioning and well-being.

The key objective of this project is to develop strategies that can be enacted by communities, the CSG industry and government to ameliorate negative consequences of CSG extraction and to enhance community functioning and well-being.

More specifically its objectives are to identify:-

- The characteristics that define community functioning and well-being for a CSG region
- The aspects of community functioning and well-being that are challenged by gas development, and aspects which are bolstered
- Any fracture lines evident for communities under stress
- What can be done to enhance community functioning and well-being by community groups, local and state governments, and gas companies working collaboratively
- The indicators of such enhancement
- A set of community storylines, joining history to the future (this part of the project will link closely with the Scenarios section of Projects 1 and 5).

The outputs will be:

- Measures of community well-being relevant to a CSG region, the items of which will be made available as an appendix in a publicly available report for subsequent use by local and state government organisations, gas companies and other researchers. It will detail levels and changes in CSG concerns, community engagement processes and social licence to operate.
- Four journal articles submitted
- Capacity building by supporting a PhD candidate

Pathway to impact

The CFWB project engages with four different types of stakeholders, all of which can benefit as a result of this research:

- Government bodies (e.g. the Western Downs Regional Council; the Coordinator General; the Queensland GasFields Commission; and various Queensland state government departments)
- Local community organisations (e.g. Chinchilla Community, Commerce & Industry Inc.; Chinchilla Family Support Centre; and other local support, service, and recreational organisations).

- CSG development companies; and
- Community Consultative Committees constituted by the stakeholder types above

As part of engaging with these stakeholder groups, they will gain insights into the effectiveness of consultation processes and social investments. These insights relate to:

- Identifying met and unmet community needs associated with government, community and company social investment programs
- Identifying impacted groups not included in existing community consultation processes
- Assessing the efficacy of existing community consultation processes in resolving community issues
- Suggesting alternative community forums and processes, if needed.

Information and insights will be gained through a process of continuous engagement with stakeholders. The CFWB project will feed back and discuss findings from Stage 1 interviews and focus groups with the 4 stakeholder groups as part of designing the survey in Stage 2. Stage 2 findings will also be fed back and discussed with stakeholders in designing focus groups for Stage 3. This iterative and interactive engagement with stakeholders ensures that they gain information and insights from this research project, as well as participating in the research. Some of these stakeholders will also be part of reference committee being set up for this and other GISERA projects (see Project 1). In addition, the broader community will benefit via public reports and presentations of the research findings.

The research findings will feed into:

- Improving local government community plans and gas company social impact management plans by actively including these stakeholders in the project
- Identifying and prioritising demand for community infrastructure and services for social investments by gas companies and the provision of infrastructure by local and state government organisations. These priorities will also be presented to the Regional Community Consultative Committees (RCCCs) and the GasFields Commission.
- Monitoring and enhancing the functioning of consultation and engagement processes by interviewing members of RCCCs, as well as groups outside this consultation process, and presenting these findings to local government and the RCCCs.
- Enabling local groups within the community (such as Chinchilla Community, Commerce & Industry Inc.; Chinchilla Family Support Centre; and other local support, service, and recreational organisations) to proactively engage with the CSG industry and government in a way that enhances their community efficacy and well-being by developing a community story-line with a vision for the future.

14. Project Plan

14.1 Project Schedule

Task ID	Task Title	Task Leader	Scheduled Start	Scheduled Finish	Predecessor
Task 1	Project set up	Rosemary Leonard	06.12	08.12	NA
Task 2	Literature review on CFWB & Identification of relevant CFWB indicators	Rod McCrea	08.12	03.13	Task 1
Task 3	Community story-lines phase 1	Rosemary Leonard	08.12	09.13	Task 1
Task 4	Survey of CFWB	Rod McCrea	09.13	12.13	Task 2, 3
Task 5	Social inclusion analysis	Rod McCrea	01.14	03.14	Task 3&4
Task 6	Follow-up on community story-lines and survey	Rosemary Leonard	01.14	06.14	Task 4&5
Task 7	Final write-up	Rosemary Leonard & Rod McCrea	07.14	03.15	Task 4,5,6

Task 1.

TASK NAME: Project set up

TASK LEADER: Rosemary Leonard

OVERALL TIMEFRAME: Apr-Jun 2012

TASK OBJECTIVE:

- Design data collection instruments and systems
- Submit ethics approval
- Recruit Postdoctoral fellow and PhD student.

Task 2.

TASK NAME: Literature review and indicators of CFWB

TASK LEADER: Rod McCrea

OVERALL TIMEFRAME: Jun-Mar 13

BACKGROUND: The most significant initiative in the development of community indicators in Australia has been Community Indicators Victoria. These indicators have been used mainly in urban settings and indeed many would not be appropriate for rural settings. In Australia and overseas, some efforts to develop rural indicators have been made in agricultural communities however the co-location of CSG extraction and farming is a unique situation.

TASK OBJECTIVE: To ensure that the empirical work in this project has considered all potentially relevant indicators that have been identified in the literature

TASK OUTPUTS: A list of potential indicators appropriate for CSG communities

SPECIFIC DELIVERABLE: Journal article submitted.

Task 3.

TASK NAME: Community Storylines

TASK LEADER: Rosemary Leonard

OVERALL TIMEFRAME: Jun 12 – Sept 13

BACKGROUND: In order to produce material that is useful for future planning it is essential to have a deep understanding of the community in all its complexity. The project will have a strong presence in the community through the use of the CSIRO mobile social research laboratory, allowing all parties to tell their stories to the researchers. Data from existing data sources, individuals and groups of key informants will also be sought.

TASK OBJECTIVE: To identify diverse perspectives on what constitutes well-being for this community's past, present and future.

TASK OUTPUTS & SPECIFIC DELIVERABLE: Journal article submitted.

Task 4.

TASK NAME: Survey of community well-being

TASK LEADER: Rod McCrea

OVERALL TIMEFRAME: 9.13-12.13

BACKGROUND: It is necessary to identify if indicators of community well-being identified in Task 2 and issues raised in Task 3 are more widely applicable to the Western Downs region.

TASK OBJECTIVE: To identify a core set of indicators that can be used to measure well-being in the region.

TASK OUTPUTS & SPECIFIC DELIVERABLES: A regionally valid measure of community well-being.

Task 5.

TASK NAME: Social inclusion analysis

TASK LEADER: Rod McCrea

OVERALL TIMEFRAME: 1.14- 03.14

TASK OBJECTIVE: Identify the fracture lines, if any, becoming evident if the community is under stress.

TASK OUTPUTS: Identification of major groups in terms of differences in well-being and the inter-group relationships.

Task 6.

TASK NAME: Community story-lines & survey follow-up

TASK LEADER: Rosemary Leonard

OVERALL TIMEFRAME: 01.14-06.14

BACKGROUND: Further focus groups, interviews, and a workshop are needed to understand processes and changes over time; feedback survey findings, and to refine indicators of well-being and inter-group dynamics.

TASK OBJECTIVE: Ensure that our interpretation of the data makes sense to the community (e.g., town residents, land-holders, CSG-LNG workers and local government).

TASK OUTPUTS: Refinement of the findings and survey measures.

SPECIFIC DELIVERABLES: Journal article submitted.

Task 7.

TASK NAME: Final write-up

TASK LEADER: Rosemary Leonard & Rod McCrea

OVERALL TIMEFRAME: 06.14-12.14

BACKGROUND: The community story-lines and surveys will generate a large amount of data which needs to be integrated to give meaningful feedback to all stakeholders and finalise indicators against which future well-being can be measured.

TASK OBJECTIVE: To integrate all findings and refine the measures of community well-being.

TASK OUTPUTS: Final well-being scales

SPECIFIC DELIVERABLES: Journal article submitted.

15. Budget Justification

The budget for this project has been approved by GISERA's Research Advisory Committee and Management Committee.

16. Project Governance

Project management tasks and dissemination activities are specified in *Section 14. Project Plan*.

17. Communications Plan

General communication will be managed by GISERA.

The project team will liaise with the local council to inform all relevant workers and residents in the region of the nature of the research. Information will also be provided to local media. The project itself will have a strong presence in the community through the use of the CSIRO mobile social research laboratory, allowing all parties ad lib access to the researchers. This lab will have the publicly available information from GISERA on all their projects in printed form and there will additional detailed information sheets for this project including invitations to take part in focus groups. Project updates will also be disseminated by these means.

18. Risks

The researchers are conscious of the potentially sensitive nature of the project. Strategies to deal with stress and potential hostility will be employed where necessary.

Capacity to deliver: Both the researchers independently have the ability to conduct the research. We are part of a substantial group of social scientists from which replacements could be found if necessary.

19. Intellectual Property and Confidentiality

Background IP (clause 10.1, 10.2)	Party	Description of Background IP	Restrictions on use (if any)	Value
				\$
				\$
Ownership of Non-Derivative IP (clause 11.3)	CSIRO			
Confidentiality of Project Results (clause 15.6)	Project results are not confidential.			
Additional	Not Applicable			

2 Variations to Project Order

Changes to research Project Orders are approved by the GISERA Director, acting with authority provided by the GISERA National Research Management Committee, in accordance with the [National GISERA Alliance Agreement](#).

The table below details variations to research Project Order.

Register of changes to Research Project Order

Date	Issue	Action	Authorisation
19/04/13	Research project start date delayed; milestone dates require rescheduling	All milestone dates rescheduled to reflect later project start date; timing of milestones relative to start date not altered.	Peter Stone
13/12/13	Concern that planned survey timing of December 2013 would not provide a representative sample and good response rate, as many families leave the area that time of year.	Survey will be conducted in February 2014. Milestone 4 will be pushed back by two months and milestones 5 and 6 will be pushed back by one month. These changes will not delay the overall completion of project which is still on track to be completed by May 2015.	Peter Stone

3 Progress against project milestones

Progress against milestones are approved by the GISERA Director, acting with authority provided by the GISERA National Research Management Committee, in accordance with the [National GISERA Alliance Agreement](#).

Progress against project milestones/tasks is indicated by two methods: Traffic Light Reports and descriptive Project Schedule Reports.

1. Traffic light reports in the Project Schedule Table below show progress using a simple colour code:

- **Green:**
 - Milestone fully met according to schedule.
 - Project is expected to continue to deliver according to plan.
 - Milestone payment is approved.
- **Amber:**
 - Milestone largely met according to schedule.
 - Project has experienced delays or difficulties that will be overcome by next milestone, enabling project to return to delivery according to plan by next milestone.
 - Milestone payment approved for one amber light.
 - Milestone payment withheld for second of two successive amber lights; project review initiated and undertaken by GISERA Director.
- **Red:**
 - Milestone not met according to schedule.
 - Problems in meeting milestone are likely to impact subsequent project delivery, such that revisions to project timing, scope or budget must be considered.
 - Milestone payment is withheld.
 - Project review initiated and undertaken by GISERA Research Advisory Committee.

2. Progress Schedule Reports outline task objectives and outputs and describe, in the 'progress report' section, the means and extent to which progress towards tasks has been made.

Project Schedule Table

ID	Task Title	Task Leader	Scheduled Start	Scheduled Finish	Predecessor
Task 1	Project set up	Rosemary Leonard	Nov-12	Feb-13	NA
Task 2	Literature review on CFWB & Identification of relevant CFWB indicators	Rod McCrea	Nov-12	May-13	Task 1
Task 3	Community story-lines phase 1	Rosemary Leonard	May-13	Nov-13	Task 1
Task 4	Survey of CFWB	Rod McCrea	Nov-13	Apr-14	Task 2, 3
Task 5	Social inclusion analysis	Rod McCrea	Apr-14	Jun-14	Task 3&4
Task 6	Follow-up on community story-lines and survey	Rosemary Leonard	Apr-14	Sep-14	Task 4&5
Task 7	Final write-up	Rosemary Leonard & Rod McCrea	Oct-14	May-15	Task 4,5,6

Project Schedule Report

Task 1.

TASK NAME: Project set up

TASK LEADER: Rosemary Leonard

OVERALL TIMEFRAME: Nov 2012 – Feb 2013

TASK OBJECTIVE:

- Design data collection instruments and systems.
- Submit ethics approval.
- Recruit Postdoctoral fellow and PhD student.

PROGRESS REPORT:

Setting up cost code share drive and external communication lines for the project such as dedicated project phone numbers (landline and mobile) and an email address CommunityWellbeingStudy@csiro.au were completed. Interview schedules, participant information and consent forms were designed. The ethics application was approved by the committee in July 2012 (see Ethics Application 051/12). The post-doc Andrea Walton was appointed and the PhD top up scholarship has been offered to Jennifer Field.

Task 2.

TASK NAME: Literature review and indicators of CFWB

TASK LEADER: Rod McCrea

OVERALL TIMEFRAME: Jun-Mar 13

BACKGROUND: The most significant initiative in the development of community indicators in Australia has been Community Indicators Victoria. These indicators have been used mainly in urban settings and indeed many would not be appropriate for rural settings. In Australia and overseas, some efforts to develop rural indicators have been made in agricultural communities however the co-location of CSG extraction and farming is a unique situation.

TASK OBJECTIVE: To ensure that the empirical work in this project has considered all potentially relevant indicators that have been identified in the literature

TASK OUTPUTS: A list of potential indicators appropriate for CSG communities

SPECIFIC DELIVERABLE: Journal article submitted and accepted.

Walton, A., McCrea, R. Leonard, R. & Williams, R. (Submitted) 'Resilience in a changing community landscape of coal seam gas: Chinchilla in southern Queensland', Journal of Economic and Social Policy: Special issue on Coal Seam Gas.

PROGRESS REPORT:

A review of the community wellbeing literature revealed a broad range of generic indicators on various aspects of communities; for example, relationships, health, leisure, culture, housing, the economy, and the environment. However, many of these were not relevant to the context of a rapidly expanding CSG industry and they focussed on monitoring *levels* of community wellbeing. Focussing on levels of wellbeing places a focus on *impacts* associated with CSG. However, our



project team decided a more positive approach would be to focus on how communities were *responding* to an expanding CSG industry. So community functioning and wellbeing have been conceptualised in terms of community resilience. The dimensions of community resilience were then identified in the literature and have now been incorporated into our paper 'Resilience in a changing community landscape of coal seam gas: Chinchilla in southern Queensland', which has been submitted and accepted to a special issue on CSG in the Journal of Economic and Social Policy.

Task 3.

TASK NAME: Community Storylines

TASK LEADER: Rosemary Leonard

OVERALL TIMEFRAME: Jun 12 – Sept 13

BACKGROUND: In order to produce material that is useful for future planning it is essential to have a deep understanding of the community in all its complexity. The project will have a strong presence in the community through the use of the CSIRO mobile social research laboratory, allowing all parties to tell their stories to the researchers. Data from existing data sources, individuals and groups of key informants will also be sought.

TASK OBJECTIVE: To identify diverse perspectives on what constitutes well-being for this community's past, present and future.

TASK OUTPUTS & SPECIFIC DELIVERABLE: Journal article submitted.

PROGRESS REPORT"

The article 'Community wellbeing and resilience: Concepts, measurement and theory testing' was submitted to the journal, Rural Society (McCrea, Leonard & Walton) in December 2013. It was accepted in April 2014 and once published, will be available (via link) on the GISERA website.

This paper presents the conceptual basis for empirically testing the relationship between community wellbeing and resilience. Previous research has argued that rural communities facing rapid economic, social and environmental change need to be resilient to maintain or enhance their community wellbeing. However, it is often not clear what is meant by community resilience and wellbeing, and how they differ. Both concepts are often imprecise and seldom clearly distinguished from each other when placed in a theoretical context. Further, resilience and wellbeing are often assumed to be positively associated but this may not necessarily be the case (Amundsen, 2012; Armitage, Béné, Charles, Johnson, & Allison, 2012; Coulthard, 2012). Further, the current measures for rural communities are mostly limited to single item indicators, often aggregated, but without rigorous testing of the validity and reliability of those aggregates. Thus, to date, empirical questions about the relationship cannot be examined. The present analysis suggests that community resilience is best conceptualised as a type of functioning whereby community resources are mobilised in strategic ways by community agents in adaptive responses to change (e.g., Norris, Stevens, Pfefferbaum, Wyche, & Pfefferbaum, 2008) and community wellbeing is best conceptualised as a state, which is hopefully enhanced as a result of community resilience. Rather than a direct correlation, the relationship might be iterative whereby poor wellbeing triggers a mobilising of resilience which in turn leads to future wellbeing. The paper outlines the main dimensions of community resilience and wellbeing that require valid and reliable measurement to test the relationship. The implication of such a relationship is that communities might need to focus on resilience rather than current wellbeing to achieve future wellbeing.



Task 4.

TASK NAME: Survey of community well-being

TASK LEADER: Rod McCrea

OVERALL TIMEFRAME: 9.13-12.13

BACKGROUND: It is necessary to identify if indicators of community well-being identified in Task 2 and issues raised in Task 3 are more widely applicable to the Western Downs region.

TASK OBJECTIVE: To identify a core set of indicators that can be used to measure well-being in the region.

TASK OUTPUTS & SPECIFIC DELIVERABLES: A regionally valid measure of community well-being.

PROGRESS REPORT:

Rather than creating just a single measure of community wellbeing, we have developed a conceptual model that links current wellbeing and community resilience to future wellbeing. This model is in a previous article now accepted for publication. For Task 4, we conducted a telephone survey of 400 residents of the Western Downs local government area to measure the dimensions of the model. Regionally valid measures of wellbeing and resilience support the conceptual model with resilience being more strongly related to expectations of future wellbeing than to current wellbeing.

Task 5.

TASK NAME: Social inclusion analysis

TASK LEADER: Rod McCrea

OVERALL TIMEFRAME: 1.14- 03.14

TASK OBJECTIVE: Identify the fracture lines, if any, becoming evident if the community is under stress.

TASK OUTPUTS: Identification of major groups in terms of differences in well-being and the inter-group relationships.

PROGRESS REPORT:

Social inclusion analysis has been completed: Attitudes and perceptions were collected from a representative sample of Western Downs residents using a survey design and telephone interviews of four hundred residents, randomly selected using quota sampling. The sample comprised residents that lived in town and out of town and that identified with one of four major communities within the region: Dalby, Chinchilla, Miles, and Tara.

The social inclusion analysis examined 15 dimensions of community well-being, well-being in three years time and overall community resilience and efficacy, place attachment, and acceptance of CSG industry in terms of a range of demographic variables; age, gender, income, year of arrival, farm ownership, CSG worker, townspeople vs out of towners, and region within the Western Downs. The analysis revealed that Tara was an area of relative disadvantage and the potential for fracture lines between CSG workers, townspeople vs out of towners. Key findings of the analysis are covered in the report "CSIRO Survey of Community Wellbeing and Responding to Change:



Preliminary findings for the Western Downs region in Queensland, 2014”.

Task 6.

TASK NAME: Community story-lines & survey follow-up

TASK LEADER: Rosemary Leonard

OVERALL TIMEFRAME: 01.14 - 06.14

BACKGROUND: Further focus groups, interviews, and a workshop are needed to understand processes and changes over time; feedback survey findings, and to refine indicators of well-being and inter-group dynamics.

TASK OBJECTIVE: Ensure that our interpretation of the data makes sense to the community (e.g., town residents, land-holders, CSG-LNG workers and local government).

TASK OUTPUTS: Refinement of the findings and survey measures.

SPECIFIC DELIVERABLES: Journal article submitted.

PROGRESS REPORT:

Due to the numerous research projects in the Western Downs region we decided that rather than a new round of formal interviews, the milestone could be achieved by engaging key stakeholders with the survey findings. A forum in Chinchilla attracted 21 stakeholders from state government departments, local council, coal seam gas industry, community service providers, local businesses, and community groups. In addition, feedback was obtained from separate presentations to Western Downs councillors and staff, the Basin Sustainability Alliance, community service coordinators, other social scientists working in the CSG field, and a CSG company, as well as interviews with Chambers of Commerce in Miles and Dalby, the local State MP, and a representative of TSBE.

Overview of the feedback:-

- There was widespread agreement with the findings. On the whole, the survey results reflected people’s experience. The findings were described as “spot on”. The ability to have good data on the four regions (Dalby, Chinchilla, Miles and Tara), and among the different demographic segments (e.g., in-town residents and out-of-town residents) was particularly valued.
- People indicated that the measures used in the survey were appropriate and useful.
- People saw value in the findings. Council, community service providers, and Chambers of Commerce in Dalby and Miles indicated they will use the report in their planning documents and submissions for further services. Others also indicated they may use the findings for their various group activities.
- People particularly commented on the survey results that related to communication and agreed that communication was a major issue, especially obtaining useful and timely information for planning. They thought communication was as much about being heard as obtaining information.
- Stakeholders would like to see the survey repeated within the next 1-2 years, and on-going. There have been dramatic changes since February 2014, when the survey was conducted. The CSG construction activities have slowed down in the region and communities now face a different set of challenges. Many see that the activity of the last five years as being a construction boom, rather than a CSG boom, and are unsure about the nature of the ongoing ‘operational’ phase of the industry. Understanding how the community responds to this new phase suggests that repeating the survey in 2016 would be very useful. Conducting the survey

in a non-CSG community for comparison was also suggested as a possible improvement. Community stakeholders were also interested in longitudinal data and indicated that repeating the survey ongoing would be valuable. These, and other, insights will be used to further interpret the findings for the final milestone.

The following Journal article has been submitted:

Leonard, R. McCrea, R. and Walton, A. (Submitted) A typology of five community responses to change and their relationships to social-relational factors and community agency. American Journal of Community Psychology.

Task 7.

TASK NAME: Final write-up

TASK LEADER: Rosemary Leonard & Rod McCrea

OVERALL TIMEFRAME: 06.14-12.14

BACKGROUND: The community story-lines and surveys will generate a large amount of data which needs to be integrated to give meaningful feedback to all stakeholders and finalise indicators against which future well-being can be measured.

TASK OBJECTIVE: To integrate all findings and refine the measures of community well-being.

TASK OUTPUTS: Final well-being scales

SPECIFIC DELIVERABLES: Journal article submitted.

PROGRESS REPORT:

Certain measures were adjusted in the light of patterns which emerged in the analysis (for example separating decision-making and trust in the community from community trust in the decision-making of CSG companies). These final well-being scales were then used in the paper below to model community wellbeing and resilience.

Specific deliverable: The final journal article was submitted: McCrea, R., Walton, A. & Leonard, R. of "Developing a model of community wellbeing and resilience in response to change" to the journal Social Indicator Research.

The findings of this research have also been widely disseminated through presentations to farmers groups, regional economic development group, WDR council, CSG Compliance Unit (Dept NRM) and other government agencies, community service agencies, representatives from the local CCI's, Queensland Resource Council, Origin APLNG staff, other social scientists. Also there have been interviews for print media and radio and a piece for The Conversation.

Conference presentations include:

McCrea, R., Walton, A. & Leonard, R. Community wellbeing and resilience in the context of coal seam gas development will be presented at the 2015 Conference of the Australian Institute of Geographers (Canberra, 1-3 July) in a special session on Extraction, Community, and Identity.

Walton, A., McCrea, R. & Leonard, R. Resilience in a changing community landscape of coal seam gas Chinchilla in southern Queensland presented at the 2013 Conference of the Australian





Institute of Geographers, Perth

