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# 'Indicators' of Cumulative socioeconomic impacts in Queensland Gasfield Communities

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#### Presentation to the Sustainable Engineering Society (SENG) Technical Session

#### The Community Impacts of Coal Seam Gas, 17 June 2014

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#### Abstract

This 3-year project, titled the Cumulative Socioeconomic impacts of coal seam gas activities in the Western Downs, is examining socioeconomic impacts in a region of Queensland where 4 coal seam gas (CSG) companies are active. It is funded by the Centre for Coal Seam Gas at the University of Queensland, with contributions from the CSG companies.

The project is examining impacts on housing, employment and business, income, education and training, liveability and governance at the town level—potential impact areas identified through detailed analysis of existing social impact assessment documents and academic literature. (Other studies are researching impacts on health, community resilience, agriculture and biodiversity.)

The project is using statistics-based indicators of impact as well as community perceptions to identify and calculate potential cumulative impacts and identify management strategies for the future. Statistical data has been drawn from government, industry and NGO sources; the community perceptions have been identified through formal interviews and discussions with community members. Comparison of community perceptions with statistical data is being used to identify where community, industry and government sectors may have different levels of awareness of impacts and where development of agreed indicators might provide a useful contribution to shared understanding.

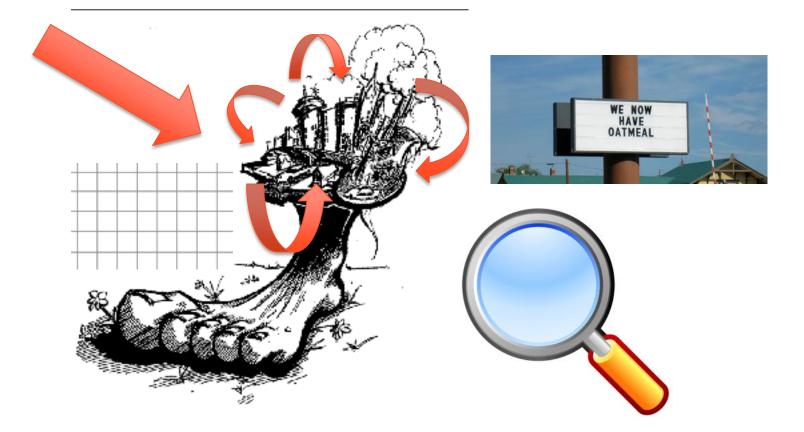
This presentation briefly covers the context, research methods, and interim findings in a pilot town, with community perceptions (shown in blue) contrasted with indicator statistics. These slides represent a selection of the statistical information provided to community members during the stakeholder engagement process.







#### Indicators? Cumulative? Regional?



http://i1.allaboutvision.com/i/amsler-grid.gif - 5/4/14

http://web.uvic.ca/~mroth/438/ENVIRONMENT/webstuff/foot1.gif - 5/4/14

http://4.bp.blogspot.com/-LIWWRWOBKy8/TzO8df3xail/AAAAAAAGN0/8Ch6XEUYpTM/s1600/mundane %2Bsign.jpg- 5/4/14 http://img1.wikia.nocookie.net/ cb20130222162701/coasterpedia/images

/5/58/Magnifying\_glass.png - 5/4/14







# **UQ Team - Cumulative Impacts Project**

• Will Rifkin – Chair in Social Performance

 Vikki Uhlmann – Research Manager (Honorary Assoc Prof – Inst for Soc Sci Res)

• Kylie May – Research Analyst

• Jo-Anne Everingham – Senior Research Fellow













#### Disclaimer

#### **Individual perspective**

The information, opinions and views expressed in this presentation do not necessarily represent those of the U of Q, the UQ Centre for Coal Seam Gas, or its constituent members or associated companies.

#### Not investment advice

This presentation was not produced as a guide to investing in shale gas, coal seam gas or other resources, or to invest in any activities or industries that might relate in any way to these resources. Investors should obtain their own independent advice.







## **Declaration of interests**

#### • Funding

- 5 years & AUD\$20 million
- UQ 25%
- Industry members 75%

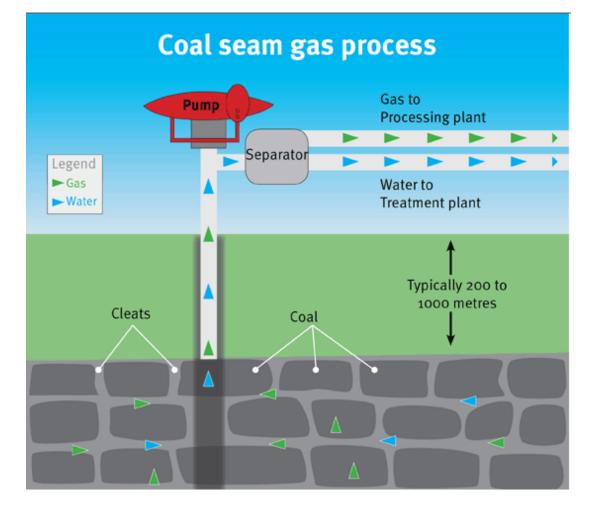








#### More wells in an agricultural landscape





http://econews.com.au/wp-content/uploads/2012/01/QLDcouncil-ban-CSG-460x250.jpg - 5/4/14





http://www.ehp.ald.gov.au/management/uca/images/csa-diagram.aif - 5/4/14



#### Scale & speed of onshore gas development

- \$60 billion largest in Southern Hemisphere
- ~ 200km x 200km & 40,000 residents
- 2 yrs approvals + 2+ yrs pipe network + 30 years extraction
- Our research is focused on Western Downs in Surat Basin.



http://www.beefcentral.com/u/lib/cms/surat-cma-map.jpg - 5/4/14





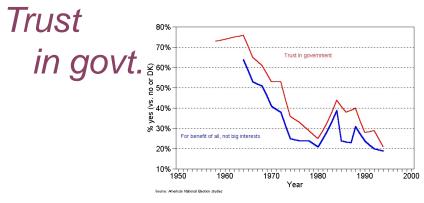
http://cjw.id.au/WordPress/wp-content/csg22.jpg - 5/4/14



#### Cumulative ...

#### Exploration + Construction + Operations x 3 (+ 1)





# Distribution of benefits



http://www.advancewesterndowns.com.au/img/profile/77CAA Photo.JPG - 10/12/13

http://www.vanneman.umd.edu/socy441/trends/trust.jpg - 10/12/13



Centre for Social Responsibility in Mining http://media2.apnonline.com.au/img/media/images/2011/06/01/bad-hwy\_t460.JPG - 5/4/14



## Impacts we are investigating

- 1. Housing
- 2. Employment
- 3. Business
- 4. Education & Training
- 5. Liveability\*
- 6. Governance
- Health & safety (separate project)
- Agriculture (separate project)\*
- Environment (separate project)\*

\*CSIRO research in these areas







#### A few good indicators

Literature suggests:

- 1. Relevant & signal trends
- 2. Valid & reliable
- 3. Easy to measure, apply, understand

Suggest cause / effect -> (blame/credit)

#### **Developed via participation**

#### Undeniable







- 1. Population ratios FIFO/DIDO workers:locals
- 2. Housing price, availability
- 3. Unemployment & income
- 4. Business skills shortages, CSG contracts, tourism
- 5. Education & Training opportunities
- 6. Liveability proportion: youth & elderly remaining, crimes stats, roadside litter, complaints
- 7. Trust in govt. perceptions / revenue flow







#### **Elements of each Indicator**

- 1. Topic & history 'housing ... stagnant population'
- 2. Indicator number 'weekly rents \$'
- 3. Data, sources, caveats 'ABS & ...'
- 4. Trends in data & geographic distribution ' \$
- 5. Explanation 'workforce growth ...'
- 6. Examples '3 new hotels'



http://resources0.news.com.au/images/2011/07/22/1226099/690404-110723-moranbah.jpg -- accessed 12/10/13







#### Industry – Government – Community

#### Selection of indicators -> Data collection -> Conversations



www.makingcoachingwork.wikispaces.com - accessed 29/9/13







# Current steps – in pilot community

#### Consulting

- Staff in local & state govt,
- CSG companies, &
- Residents

#### То

- 1. Introduce the project
- 2. Identify who cares the most about, e.g., training
- 3. Collect feedback on indicator(s) in their specialty





http://www.advancewesterndowns.com/img/regionalProfile/regionalMap.jpg - 10/12/13



# Indicators of impact: Early findings

**Population**: 2013 – 7,485 NRW in Western Downs (79% on 2012). 1 CSG worker : 4 locals. Locals say 9/10 people = stranger. Boom town = 15% pop increase (Jacquet 2009).

**Housing**: Rent of ave. 2 bdrm apt is double 'affordable' level. Prices now coming . Next wave? Lower socio-economic families leave town.

**Unemployment & Income**: 1.3% unemployed in pilot town, Western Downs = 6% av.; was dropping before CSG arrived. Most unskilled; long-term community prosperity? Income

**Business**: Despite local content policies, some business people disappointed; only 13 have CSG contracts? Labour shortages in non-CSG businesses doubled in 4 yrs. Tourism







# Indicators of impact: Early findings (cont.)

**Education & training**: School enrolments as CSG arrived, now recovered. Uni as destination **\*** ~50%.

Liveability: Lower socioeconomic groups going ... Elderly leaving before CSG arrived. Cash in on home. Adverts for volunteers. Cost of living <sup>1</sup>. Some crime numbers <sup>1</sup>. Women feeling less safe.

**Governance**: Affordable housing strategies investigated. 'Royalties for Regions' \$ spent in pilot town.







# Thank you!



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www.colourbox.com -- accessed 29/9/13





