

Rural change as a result of coal seam gas developments and the associated economic impacts

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At any given point in time, a community or region may appear static. Their populations, economies and identities may give the appearance that this is how they always were. This is not the case; history shows that a region's population, economy and identity changes considerably over time.

The [Monitoring regional transition](#) research project looks at the nature of social and economic changes occurring in rural Australia and tracks the social impacts of regional economic change arising from the coal seam gas (CSG) industry.

The history of rural Australia is one of change that has frequently involved the resources sector. For example, gold rushes brought massive changes to rural regions and made significant impact, not only on the towns themselves but on the wider population. Presently, the development of CSG in regional Australia represents another significant step in the history of regional transitions in Australia.



Figure 1. The local housing market is one of many community characteristics that is often affected by CSG developments.

Traditionally rural regions had a single main function – usually the production of food and fibre. Now regions provide multiple productive functions – production of food and fibre as well as energy extraction.

The main initial economic impact of resource expansion in particular regions is the increase in labour demand associated with the resources industry. This increased demand for labour is likely to result in three additional direct economic effects in local areas:

1. local wages will increase as more labour is demanded
2. there is likely to be an increase in the demand for services and non-tradable goods (such as housing) as average disposable income increases
3. a movement of labour from manufacturing and/or agriculture (tradable goods sectors) to the resources sector is likely to occur as the manufacturing and agricultural sectors, in general, cannot compete with the wages offered by the resource extraction industry.

From the above three direct effects, other local indirect consequences of resource expansion could also occur. Whether all, some or none of these indirect effects, shown in Table 1, will occur in a community depends on the many characteristics of the respective local economy. Some of the characteristics that are very likely to affect the extent of the direct and indirect impacts are:

- *Mining history*: a community that has historically had resource extraction as a main component of its economic structure is likely to experience less impact from resource extraction expansion than a community with no history of resource extraction.
- *Labour force skills*: the skills that local workers possess are crucial in filling new jobs created by resource sector expansions. In this regard, the role of initial skills, training opportunities and labour migration combine to determine how much local labour is used.

- *Weight of manufacturing*: manufacturing is generally one of the industries most affected by resource booms due to currency exchange rate increases and increased demand for labour in the resources sector. In this way, a local economy that relied heavily on manufacturing before the expansion of the resource extraction industry can be negatively affected by potential closures of manufacturing companies. On the other hand, if manufacturing was not important before resource development, fewer impacts are likely to be observed.
- *Integration of the local economy into the region/country economy*: the more a local economy is integrated into the regional economy, the less likely the local economy will suffer negative consequences from future resources sector reduction or closures. Thus, distance and other factors are important to consider as more isolated communities will be less likely to cope with resource volatility.
- *Multifunctional economies*: this relates to the previous point, the higher the diversification of a local economy, the less likely it will be (positively or negatively) affected by resource extraction development.
- *Housing market*: if the local economy has a dynamic housing market, the increased housing demand generated by resource development will be rapidly met with supply. However, if the housing market does not respond adequately to new demand, housing affordability is likely to become an important issue in the community.

The research also highlights dialogue as an important part of understanding and managing resource initiated changes, specifically, tripartite (three-way) dialogue between local communities, private companies and state authorities. For tripartite arrangements to be effective each party needs to commit to creating shared value from the CSG industry, which will help drive innovation and economic growth beyond the individual company involved.

Table 1. Direct and potential indirect effects associated with resource extraction

Direct effects	Indirect effects	Other indirect effects
Local wages increase	<ul style="list-style-type: none"> • Immigration • Counter migration • Reduced commuting time • Poverty reduction 	<ul style="list-style-type: none"> • Saturation of original infrastructure • Increase of men/women population ratio • Income inequality may increase, especially among women
Increase in demand for services and non-tradable goods	<ul style="list-style-type: none"> • Housing affordability • Increase in employment in local goods sector • Increase in demand of public services 	<ul style="list-style-type: none"> • Increase in employment in construction • Outmigration of low income families
Movement of labour from manufacturing and/or agriculture to the resources sector	<ul style="list-style-type: none"> • Manufacturing firms closure • Reduction of agricultural outputs • Increase of imports • Food prices increase 	<ul style="list-style-type: none"> • More employment volatility • Less demand for non-resource extraction training/education • Less entrepreneurship