

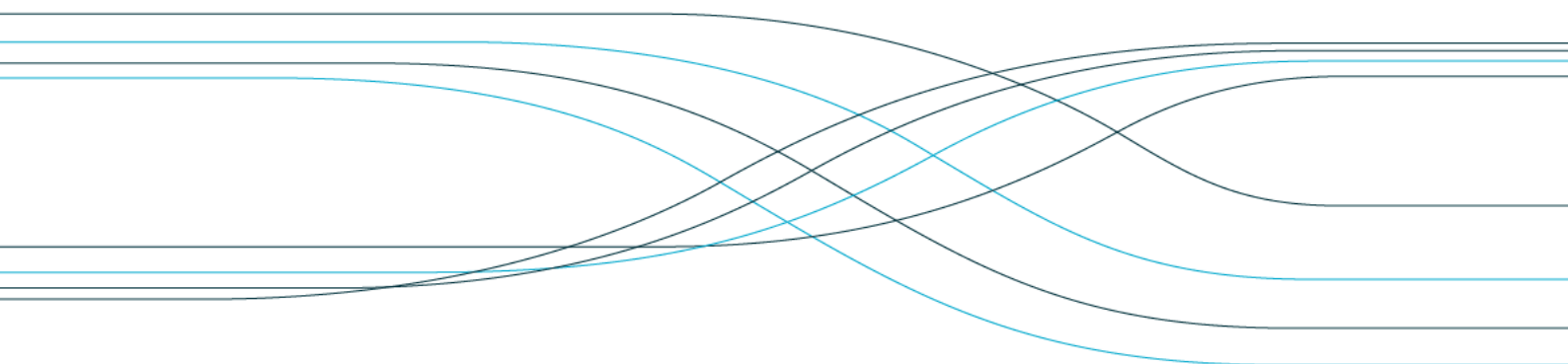


CSIRO Submission 17/608

Inquiry into Regional Development and Decentralisation

House Select Committee on Regional Development and Decentralisation

September 2017



Introduction

CSIRO welcomes the opportunity to contribute to the Committee's Inquiry into best practices for regional development and decentralisation.

We wish to provide comments below for the Committee's consideration. We note that the Committee's Issues paper highlights the importance of tailoring development practice to the diverse character, circumstances and competitive advantage of different regions – we are supportive of this approach in the context of considering best practice for development in Australia's regions. Best practice development approaches are also inclusive of the interests of different parts of the Australian community; recognise many regions are undergoing processes of change; and, recognise the influence of institutional and governance settings on helping or hindering good development outcomes.

We provide an overview of five key topics relevant to these considerations of best practice regional development, drawing on CSIRO and other research. A number of these topics address multiple terms of reference of the Inquiry:

- Rural and regional population and employment – the effects of coal seam gas (CSG) development (a.i, iv.)
- Community well-being in regions undergoing development-related change (a.v., vi.)
- Indigenous enterprise development (a.ii, iii, iv, v, vi, viii)
- Land tenure and development investment in regions (a.ii, and d)
- Place-based approaches and collaborative governance (a. vi., vii.)

We also draw the Committee's attention to CSIRO's recent submission to the House of Representatives Standing Committee on Infrastructure, Transport and Cities *Inquiry into the Australian Government's role in the development of cities*. Our submission to that Inquiry addresses several topics relevant to the present Inquiry and are complementary to the material provided below (but not repeated) in this submission. These topics include:

- Urban liveability and quality of life
- Development of regional centres
- Private investment in regional centres and infrastructure
- Regional location of businesses
- More balanced regional development

Rural and regional population and employment – the effects of coal seam gas (CSG) development

Key points:

- *CSIRO research has indicated that the extensive spatial footprint of unconventional gas in Queensland and increased female youth population indicate a departure from traditional demographic effects in previous energy booms.*
- *Taken together, the results show signs of mitigating (and in some cases reversing) rural community decline.*

CSIRO has conducted research on what is happening in regional communities experiencing CSG development (Measham & Fleming, 2014). Regions with CSG development experienced growth in the youth population (the 15–19 year old age group from 2001 to 2011) compared to rural Queensland regions that have not experienced CSG development. In CSG areas the youth population increased throughout

their 20s as more people stayed and others come to the region as a result of CSG development. Chinchilla is an example of a change in trend from about 2006 with more young people staying in town than leaving as the pace of CSG development increased. This was the case in both male and female populations, suggesting that the wider rural population is experiencing social and economic benefits from the CSG sector, rather than a predominantly male workforce commuting from distant cities, as can happen with fly-in fly-out workforces in other contexts. CSG regions had slightly more educated populations, but mostly amongst men. An increase in family income was also observed in CSG regions, concentrated particularly in Chinchilla. However, while family income is up, this also has to be balanced against higher housing costs.

Research also showed (Measham & Fleming 2014) that for every new job in the resources sector there has been around two new jobs created in the related sectors of construction and professional services. By contrast, for each new job in the resources sector there has been a reduction of 1.7 jobs in agriculture. These new jobs in CSG areas are not just restricted to males. Focusing on Chinchilla, total female employment increased 26% from 1204 in 2006 to 1516 in 2011. Over this period, there were fewer women working in agriculture and manufacturing sectors, but more working in mining, construction and hospitality.

The extensive spatial footprint of unconventional gas and increased female youth populations indicate a departure from traditional demographic effects in previous energy booms. Taken together, the results show signs of mitigating (and in some cases reversing) rural community decline.

Community well-being in regions undergoing development-related change

Key points:

- *CSIRO research has identified that well-being and liveability of rural communities going through CSG development is strongly influenced by the presence of services and facilities, maintaining social interaction and community cohesion, feelings of personal safety and the visual appearance of towns.*
- *These findings highlight the importance of social factors as predictors of well-being along with the presence of employment and business opportunities.*

CSIRO research has identified four key factors contributing to a sense of wellbeing in regional communities experiencing significant change from major economic activity, such as coal seam gas development (McCrea et al., 2016; Walton et al., 2016; Walton & McCrea, 2017). When people feel these aspects of their community are strong then they view their community as a great place to live, a place that offers a good quality of life to all ages.

These factors include the following:

- The level of *services and facilities* – for example schools, child care, medical and health services, sports and leisure facilities, community support services, food and other shopping
- The social aspects of community life such as everyday *social interaction* and *community spirit and cohesion*
- Feelings of *personal safety*
- The *appearance of local towns* – for example, clean with good parks and green space

In addition other factors become important during different phases of development related change. For example, the research shows that the quality of the environment in terms of dust and noise becomes salient during the construction phase of a major economic development (a 'boom'); whereas, employment and business opportunities become relatively more important in a post-construction phase or during an economic slowdown (a 'bust') (Walton et al., 2016). The research also indicates that after announcement of

a major economic project, where there is considerable uncertainty and community concerns about possible environmental and social impacts, the levels of trust and community cohesion become very important drivers of community wellbeing (Walton & McCrea, 2017). Understanding important drivers of community wellbeing in different contexts provide opportunities for directing scarce and valuable resources so that programs and initiatives can help to strengthen community wellbeing.

It has also been shown that community participation, or having their voices heard, in decision-making related to resource development in regions, is a significant contributing factor to social acceptance of the changes associated with that development and to enhancing community resilience (McCrea et al., 2016). This in turn contributes to well-being in the community (McCrea et al., 2016).

Indigenous enterprise development

Key points:

- *Indigenous people are key participants in the development of regional Australia and in creating an improved quality of life for regional Australians.*
- *Securing development that sustains, and is sustained by, Indigenous Australians, begins with a place-based approach that takes account of local circumstances and identifies local competitive advantages.*

Indigenous people are key participants in the development of regional Australia and in creating an improved quality of life for regional Australians. They also often represent a substantial proportion of the regional population and so are key beneficiaries of those processes. Indigenous Australians occupy a unique position due to:

- Continuing role as custodians, land owners and managers of large areas
- Specific population demographics, often encompassing large numbers of young people
- Requirements for governance and partnership arrangements suitable for collective ownership and management regimes
- Diverse aspirations and objectives regarding current and future business development opportunities

Indigenous people are the traditional custodians of the land, and collectively hold formally recognised rights in land and natural resources in much of regional and remote Australia. The level of recognition, rights, and ownership continues to grow (Holmes 2010b, Hill et al. 2013, Altman & Jackson 2014), and is occurring through mechanisms such as:

- native title processes
- the handback or direct purchase of pastoral and other leases
- expansions in conservation and management reserves through joint management arrangements, including the Indigenous Protected Area program
- recognition through other legislative and planning tools, such as cultural heritage, water planning, and land use agreements.

Indigenous Australians represent the bulk of the resident population in many key parts of regional and remote Australia, and the Indigenous population is growing rapidly (ABS 2011). Their significant, ongoing, and intergenerational ties to the land means that they are often the longest term, most consistent residents of many areas of regional and remote Australia. They have an historical awareness of past development failures as well as successes (Davidson 1965, Head 1999). As such, Indigenous people are integral to the sustainable creation of vibrant, cohesive, and engaged regional communities.

Indigenous Australians have a long history of pursuing a variety of livelihood pathways that utilise their human, natural and cultural resource assets, including participation in traditional industries such as

pastoralism (Gill 2014), mining (Altman & Martin 2009, Holcombe 2010), tourism (WWF 2014), and agriculture (Barber 2013). They are also pursuing innovative new livelihood development options in conservation and ecosystem services provision involving land management (Altman & Kerins 2012) (Barber & Jackson 2017), carbon and fire (Robinson et al. 2014, Robinson et al. 2016), biodiversity and biosecurity services (Maclean et al, 2012, 2016) and water (Barber & Jackson 2012a, 2012b, 2014, Maclean & Robinson, 2011; Bark et al, 2012).

Regional development driven by and enacted through Indigenous Australians is likely to have particular objectives (Holmes 2010a) and characteristics, including:

- being consistent with the cultural and lifestyle aspirations of their people
- creating autonomously sustainable employment and revenue streams
- employing land and water management practices that are consistent with Indigenous landholder views of caring for country
- providing opportunities for on-country and in-job capacity building
- managing risk by diversifying future commercial enterprise opportunities
- creating opportunities for Indigenous people to create, own and direct their own land management, lifestyle and business trajectories.

These development objectives reflect the importance of building Indigenous educational and employment capabilities and of diversifying income streams through securing greater private investment in regional and remote Indigenous communities. This in turn will likely lead to better distribution of the benefits of economic growth to Indigenous communities, and within them.

Land tenure and development investment in regions

Key points:

- *Australia's systems of land tenure are fundamental to and provide investor and community confidence in a range of processes related to regional development.*
- *There may be options to reduce impediments to development by addressing issues related to land tenure.*

In the context of northern Australia, land tenure is tied to matters that relate to rights of economic and cultural development and in particular control of important resources such as minerals, prime agricultural land and traditional lands. While there are several factors that can have significant weight in investment decisions, such as infrastructure, distance to market, land values and terms of trade, land tenure and related issues, is an important consideration (CSIRO, 2013). Australia's systems of land tenure are fundamental to and provide investor and community confidence in a range of processes including:

- Financial security in economic development and property markets,
- Development planning and economic growth strategy;
- Social stability through housing and employment;
- Development planning and economic growth strategy; and
- Natural resource, environmental and cultural management and sustainability.

Land ownership systems also underpin much of government policy making and program delivery, as well as functions such as taxation, land administration, administrative boundaries, regulation and land use management. While different sectors or interests across northern Australia face distinct investment issues, there are common and significant tenure-related barriers to investment that influence development outcomes in regional Australia. These include the underlying complexity of tenures and entitlements on a given area of land; the capacity for investors to manage across multiple tenures and jurisdictions and resolve disputes efficiently; and the limits of some types of tenure to allow owners to leverage land assets for capital and development purposes, such as on some Indigenous tenures (CSIRO, 2013).

Efforts to reduce impediments to investment and development in northern Australia might be pursued in three ways: (i) attending to tenure complexity through administrative or legislative improvement, (ii) improving the efficiency of development assessment and regulation, and (iii) actions to improve the effectiveness of land and resource planning to reduce contestation between potential investors in northern Australian landscapes (CSIRO, 2013).

Place-based approaches and collaborative governance

Key points:

- *Place-based or place-sensitive approaches to local and regional development can be an appropriate and effective strategy to promote development processes and outcomes.*

The historical, locational, cultural, demographic and environmental differences that have shaped Australia's regions, and the changing mix of values society holds about regions means that regions are on different development trajectories. For this reason one suite of policy settings, interventions or decisions are unlikely to be advantageous or appropriate across all regions. Place-based or place-sensitive approaches to local and regional development can be an appropriate and effective strategy to promote development processes and outcomes.

The benefits of adopting place-based approaches to development that involve collaboration or collective governance are widespread in the Australian and international literature on rural and regional development (e.g. Wellbrock & Roek, 2015) and local and regional natural resource management (e.g. Lane, Robinson & Taylor, 2009, Taylor, 2009). These benefits include:

- the capacity to tailor higher level policy goals and priorities to local conditions and circumstances,
- the empowerment of local and regional stakeholders in decisions affecting their future, which in turn increases local commitment and shared ownership of the development process;
- the potential to better align administrative, planning, political, business and scientific capability around an agreed goal in a given place; and,
- the opportunity for joint-learning and improvement in development 'practice' amongst all stakeholders.

This work emphasises that place-based approaches need to link grassroots engagement, different expertise, and governance arrangements both within *and beyond* the local area (e.g. Wellbrock & Roek, 2015). That is, to succeed, place-based approaches, somewhat paradoxically, need to extend beyond the 'place' in terms of institutional support, investment, policy alignment and learning.

Research has also shown that local stakeholders can prefer to work and collaborate horizontally (with other local actors) while governments prefer to implement policies and plans through vertical partnerships (Taylor et al, 2012). These differences mean that good collaboration between communities and governments should consider how these preferences affect agreement on priorities, where decision-making sits and evaluation of success (Robinson, Taylor & Margerum, 2009). Place-based approaches also offer the potential for communities to explore a number of alternative development futures, in light of major drivers of change, through processes such as scenario planning (Measham et al., 2012).

Concluding comments

Best practice regional development relies on sound planning that understands the opportunities that exist within the human and physical capital of regions; on designing and trialling innovative models of development that engage communities, stakeholders and investors; and, on the capacity to anticipate,

monitor and evaluate the outcomes of development interventions over time. These are all areas in which research can continue to play a critical role in providing a robust evidence base to help meet these needs in partnership with practitioners, policy-makers and regional communities.

References

- ABS. 2011. 2011 Census of Population and Housing.
- Altman, J., and S. Jackson. 2014. Indigenous land and sea management: recognition, redistribution, representation. *in* D. Lindenmayer, S. Dovers, and S. Morton, editors. *Ten commitments revisited*. CSIRO Publishing, Melbourne.
- Altman, J., and S. Kerins, editors. 2012. *People on country: vital landscapes, indigenous futures*. The Federation Press, Sydney.
- Altman, J., and D. Martin. 2009. *Culture Economy: Indigenous Australians and Mining*. ANU E Press.
- Barber, M. 2013. Indigenous water values, rights and interests in the Flinders and Gilbert catchments. A technical report to the Australian Government from the CSIRO Flinders and Gilbert Agricultural Resource Assessment, part of the North Queensland Irrigated Agriculture Strategy CSIRO Water for a Healthy Country and Sustainable Agriculture flagships, Australia, Canberra.
- Barber, M., and S. Jackson. 2012a. Indigenous water management and water planning in the upper Roper River, Northern Territory: history and implications for contemporary water planning. CSIRO, Darwin.
- Barber, M., and S. Jackson. 2012b. Indigenous engagement and water management in the Australian mining sector. Resources Policy.
- Barber, M., and S. Jackson. 2014. Autonomy and the intercultural: interpreting the history of Australian Aboriginal water management in the Roper River catchment, Northern Territory. *Journal of the Royal Anthropological Institute (N.S.)* 20:670-693.
- Barber, M., and S. Jackson. 2017. Identifying and categorising co-benefits in state-supported Australian indigenous environmental management programs – international research implications. *Ecology and Society* 22:11.
- Bark, R, D. Garrick, C.J. Robinson, and S. Jackson 2012. Adaptive Basin governance and the prospects for meeting Indigenous water claims. *Environmental Science & Policy* 12-20:169-177
- CSIRO (2013) Land tenure in northern Australia: opportunities and challenges for investment. CSIRO & JCU, June 2013.
- Davidson, B. 1965. *The northern myth: a study of the physical and economic limits to agricultural and pastoral development in tropical Australia*. Melbourne University Press, Adelaide.
- Gill, N. 2014. Making country good: stewardship and environmental change in central Australian pastoral culture. *Transactions of the Institute of British Geographers* 39:265-277.
- Head, L. 1999. The Northern Myth Revisited? Aborigines, environment and agriculture in the Ord River Irrigation Scheme, Stages One and Two. *Australian Geographer* 30:141-158.
- Hill, R., P. Pert, J. Davies, C. Robinson, F. Walsh, and F. Falco-Mammone. 2013. Indigenous land management in Australia: extent, scope, diversity, barriers and success factors. CSIRO Ecosystem Sciences, Cairns.
- Holcombe, S. 2010. Sustainable Aboriginal livelihoods and the Pilbara mining boom. Pages 141-164 *in* I. Keen, editor. *Indigenous participation in Australian economies: historical and anthropological perspectives*. ANU ePress, Canberra.
- Holmes, J. 2010a. Divergent regional trajectories in Australia's tropical savannas: indicators of a multifunctional rural transition. *Geographical Research* 48:342-358.
- Holmes, J. 2010b. The multifunctional transition in Australia's tropical savannas: the emergence of consumption, protection and indigenous values. *Geographical Research* 48:265-280.

- Juarez & Associates and Harder+Company. (2011). Best practices in place-based initiatives: Implications for implementation and evaluation of Best Start. Los Angeles, CA: Juarez & Associates.
- Lane, M.B., Robinson, C.J., Taylor, B. (Eds.), Contested Country: Local and Regional Natural Resources Management in Australia. CSIRO Publishing, Collingwood.
- Maclean, K, and Robinson CJ. 2011. Aboriginal knowledge partnerships for water planning and assessment in the Wet Tropics region. Brisbane. CSIRO.
- Maclean K, Bark RH, Moggridge B, Jackson S, Pollino, C. (2012). Ngemba Water Values and Interests Ngemba Old Mission Billabong and Brewarrina Aboriginal Fish Traps (Baiaime's Nguunhu). CSIRO, Australia.
- Maclean, K, Robinson C.J., and R. Wallace. 2016. Engaging Indigenous People in biosecurity surveillance in northern Australia - a scoping study for Northern Australia Quarantine Strategy (NAQS). Engagement and Communication Strategies to support Indigenous Rangers to respond to biosecurity risks in northern Australia. Brisbane. CSIRO.
- McCrea, R., Walton, A., & Leonard, R. (2016). Developing a model of community wellbeing and resilience in response to change. *Social Indicators Research*, 29(1), 195-214. doi: DOI 10.1007/s11205-015-1099-y
- Measham T, Darbas T, Williams R, Taylor BM. 2012. Rethinking rural futures: qualitative scenarios for reflexive regional development. *Rural Society*, 21(3): 176-189 (ISSN 1037-1656)
- Measham, T. G., & Fleming, D. A. (2014). Impacts of unconventional gas development on rural community decline. *Journal of Rural Studies*, 36, 376-385.
- (<https://gisera.org.au/wp-content/uploads/2016/04/reversing-rural-decline-factsheet.pdf>)
- Robinson, C.J, Taylor, B.M. & Margerum, R. D. 2009. On a learning journey to nowhere? The practice and politics of evaluating outcomes of natural resource management in northern Queensland regions. In: Lane, M.B., Robinson, C.J., Taylor, B. (Eds.), Contested Country: Local and Regional Natural Resources Management in Australia. CSIRO Publishing, Collingwood.
- Robinson, C., E. Gerrard, T. May, and K. Maclean. 2014. Australia's indigenous carbon economy: a national snapshot. *Geographical Research* 52:123-132.
- Robinson, C., A. Renwick, T. May, E. Gerrard, R. Foley, M. Battaglia, H. Possingham, D. Griggs, and D. Walker. 2016. Indigenous benefits and carbon offset schemes: an Australian case-study. *Environmental Science and Policy* 56:129-134.
- Robinson, C.J., Barber, M., Hill, R., Gerrard, E., James, G. (2016). Protocols for Indigenous fire management partnerships, CSIRO, Brisbane.
- Taylor, B., 2009. Invest, divest or empower: interpretations and practices of regionalisation in Australia's savannas. In: Lane, M.B., Robinson, C.J., Taylor, B. (Eds.), Contested Country: Local and Regional Natural Resources Management in Australia. CSIRO Publishing, Collingwood.
- Taylor BM 2012 Regionalism as resistance: Governance and identity in Western Australia's Wheatbelt. *Geoforum*, 43(3): 507-517.
- Walton, A., McCrea, R., & Leonard, R. (2016). *The 2016 CSIRO Community Wellbeing and Responding to Change survey: Western Downs region, Queensland - Changes between 2014 and 2016 in the Context of Coal Seam Gas Development*. Brisbane: CSIRO Retrieved from https://gisera.org.au/wp-content/uploads/2017/01/community-wellbeing-survey-2-report_final.pdf
- Walton, A., and McCrea, R. (2017). *Community wellbeing and local attitudes to coal seam gas development. Social baseline assessment: Narrabri project*. CSIRO report. CSIRO Australia. In press. Available gisera website: www.gisera.org.au

- Wellbrock, W., & Roep, D. (2015). The learning rural area framework: a heuristic tool to investigate institutional arrangements which support collaboration in rural areas. *Sociologia ruralis*, 55(1), 106-124.
- WWF. 2014. Sustainable Kimberley Tourism Partnership.