

ResearchOnline@JCU

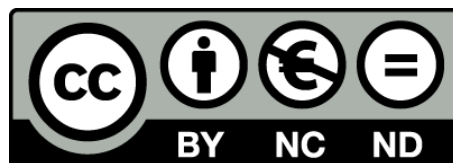
This is the **Accepted Version** of a paper published in the
Journal: Rural Society

McShane, Connar Jo, Turnour, Jim, Thompson, Michelle, Dale, Allan, Prideaux, Bruce, and Atkinson, Margaret (2016) *Connections: the contribution of social capital to regional development*. Rural Society, 25 (2). pp. 154-169.

<http://dx.doi.org/10.1080/10371656.2016.1194326>

© 2015. This manuscript version is made available under
the CC-BY-NC-ND 4.0 license

<http://creativecommons.org/licenses/by-nc-nd/4.0/>



TITLE: CONNECTIONS: THE CONTRIBUTION OF DIFFERENT FORMS OF SOCIAL CAPITAL TO REGIONAL DEVELOPMENT.

AUTHORS: Connor Jo McShane¹, Jim Turnour¹, Michelle Thompson², Allan Dale¹, Bruce Prideaux² and Margaret Atkinson¹.

INSTITUTIONS: James Cook University¹, Central Queensland University²

ABSTRACT

This article explores perceptions of social capital and sustainability of farming and its contribution to regional development. A review of the literature highlights challenges in the operationalisation of social capital as a development tool and the limits of research that gauges community perceptions of the role of social capital in their region's development. The current study investigated stakeholder attitudes regarding regional development within a target region in North Queensland, Australia. Focus groups were conducted at a regional, state and national level. Findings suggest that stakeholders perceived social capital to be important for farming sustainability and regional development, but can variously help or hinder effective development. We find that, given the broad nature of stakeholders' perceptions, research should embrace social capital as a multidimensional construct that can have both positive and negative impacts on regional development depending on stage and context of development.

KEYWORDS

Bonding; bridging; rural Australia; farm sustainability; regional growth

ACKNOWLEDGEMENTS: Funding support for this research was received through the Rural Industries Research and Development Corporation (RIRDC). Support was also received through the Australian Government's Northern Futures Collaborative Research Network. The authors would like to thank the funder for their support in the project "Accounting for Agriculture in a place-based regional development framework". The authors would also like to thank the community members from the Wet Tropics that participated in and assisted with recruitment for the current study.

AUTHOR PUBLICATION ACKNOWLEDGEMENT

This is an Author's Original Manuscript of an article published by Taylor & Francis Group in Rural Society on 07 Jul 2016, available online:

<http://dx.doi.org/10.1080/10371656.2016.1194326>

INTRODUCTION

This article explores how social capital may facilitate the contribution of sustainable farming to regional development. Farming or agriculture is a key industry for rural communities as it contributes significantly to rural economies, creating demands and opportunities for additional industries and services, including service industries, health and education (Renting et al., 2009). Understanding the factors underlying sustainable farming and its contribution to regional development is of increasing importance. Internationally, such factors have included growing concerns over food security and environmental sustainability (Godfray et al., 2010; Lawrence, Richards, & Lyons, 2013; Lobell et al., 2008). In Australia, concerns included the decline of many farms and rural communities (Australian Bureau of Statistics [ABS], 2003, 2012; McManus et al., 2012). These challenges have led researchers to consider national and international approaches to farming production and various conceptualisations of the contribution of farming to the broader community.

A number of researchers have argued that the current agri-industrial framework for farming production is unsustainable as it focuses predominantly on increasing production levels. In the current policy context this approach does not take into account the multiple contributions that farming can have at a regional scale (Lawrence et al., 2013; Marsden & Sonnino, 2008). Further, other researchers have encouraged agriculture to be considered within a regional framework (Dibden, Potter, & Cocklin, 2009; Marsden & Sonnino, 2008). A regional framework of farming sustainability and development encourages farming engagement at a regional level and considers the multiple contributions of farming to rural communities. These multiple contributions are reported to include direct contributions of regional economic stimulation and employment as well as indirect contributions through demand for services, such as health and education, and social contributions, such as volunteerism and community involvement (Marsden & Sonnino, 2008; Renting et al., 2009). More research, however, is needed to identify the factors that facilitate the successful implementation of this framework.

Past research has indicated that a key component to the successful implementation of a regionally-focused framework for farming is high levels of social capital. Some researchers go further to suggest that social capital is the “missing link” in the facilitation of economic growth and regional prosperity (Iyer, Kitson, & Toh, 2005). Yet, this field of research is still emerging, and this is evidenced through the lack of consistency in the operationalisation of and investment in social capital including the use of social capital as a retrospective indicator of regional development (Westlund & Adam, 2010; Woodhouse, 2006). Further, past research has reported a lack of clarity about whether social capital is a resource for regional development or an outcome of regional development (Nardone, Sisto, & Lopolito, 2010; Taylor, 2010). This important disparity in conceptualisation together with limited operationalisation of social capital in past regional development research raises questions regarding usefulness of current usage of the term social capital. Further, these disparities may impact understandings of which components of social capital are facilitating regional development process.

The current article seeks to explore the role of social capital in facilitating sustainable farming and its contribution to regional development. First, a literature review will explore the challenges to farm sustainability and regional development, operationalise social capital, and identify the importance of social capital in farm sustainability and regional development. Following this, the qualitative methodological framework for the study conducted will be outlined and the thematic findings presented. The article will then conclude with a discussion

of key findings and implications of the research, and offer recommendations for future research in the role of social capital in facilitating regional development.

LITERATURE REVIEW

Challenges to Regional Development and Agriculture

Internationally, farming is traditionally viewed solely as the means for food and fibre production. This *agri-industrial* framework focuses on increasing production to meet international demands whilst reducing production costs to meet competitive market prices (Marsden & Sonnino, 2008). Increased production and competition is usually achieved through engaging in new technologies and monetary incentives. This model of farming, however, has been suggested to be challenging to smaller farm businesses which leads to the need to often subsidise farm income with off-farm income (Marsden, 2003; Marsden & Sonnino, 2008; Fraser et al., 2005). The impacts of this farming framework can have negative effects on small farm business through increased burden of work, work stress, family conflict and poor mental health (Fraser et al., 2005).

The adoption of neoliberal policies in Australian agriculture has also put strain on the agri-industrial model, further challenging the sustainability of Australia farmers and rural communities (Lawrence, 1987). Neoliberalism is a political economic system that emphasises free markets to promote economic growth and community wellbeing (Harvey, 2005; Lemeke, 2001). Neoliberalism became the dominant economic policy rationale within Australia during the 1980s and 1990s (Beeson and Firth, 1998). While Australia's agricultural trading partners in Europe, the United States and Asia have maintained protectionist agricultural policies, Australian neoliberalism has been the rationale for industry deregulation. This has seen smaller farms struggle to compete against larger farmers who have financial opportunities to apply new technologies to scale up production in response to the consolidation of supply chains and declining terms of trade. So, although the application of neoliberalism has seen a sustained period of broader economic growth in Australia, operating within this philosophy has had a negative impact on many farmers and rural communities and contributed to population decline in these areas (Tonts & Jones, 1997). As a result the sustainability of rural communities dependent on this agri-industrial farming system alone is increasingly being questioned (Lawrence et al., 2013). For this reason the traditional framework of farming is unsustainable for rural communities and a more systemic, integrated and regional framework is required (Dibden & Cocklin, 2009; Dibden et al., 2009; Kneafsey, 2010; Marsden & Sonnino, 2008).

A regional framework of farming, sometimes discussed as multifunctional agriculture, considers multiple contributions of farming to rural communities including natural resource management, conservation and its socio-economic contributions (Renting et al., 2009). Specifically, a regionally-focused approach to farming emphasises the role of socio-environmental factors in the promotion of sustainability of rural economies and cultures (Marsden & Sonnino, 2008). As such, this framework highlights the importance of interconnectedness between farmers and people in the local community (Marsden & Sonnino, 2008). Kneafsey (2010) extends this idea to suggest the strategies of rescaling, respacing and reconnecting are required for a regional framework to successfully contribute to positive regional social and economic outcomes. These strategies include involving and empowering communities, regionalising food networks and reconnecting consumers and community to food networks and farmers (Kneafsey, 2010). These strategies ultimately aim to enhance regional development and sustainability via the connectedness, an argued component of

social capital, between the key industry body of agriculture and the broader community. As such this regional framework of farming and agriculture largely supports the position that regional sustainability requires the enhancement of not only economic and industrial capital but also human and social capital (Nardone et al., 2010; Cocklin & Alston, 2002; McManus et al., 2012).

Defining Social Capital

Despite the breadth of research investigating the role of social capital in development, sustainability and health outcomes, there is still a lack of consistency in the definition of social capital with limited agreement amongst researchers on the components, processes and mechanisms that make up social capital (Eklinder-Frick, Eriksson, & Hallén, 2014; Huber, 2009; Taylor, 2010; Westlund & Adam, 2010; Woodhouse, 2006; Malecki, 2012). For instance, some researchers have followed the path of Putnam (1995) and conceptualised social capital as trust, reciprocity and engagement. For instance, Cocklin and Alston (2002) broadly define social capital as the productive networks, values, levels of trust, shared vision and purpose, and commitment to action evident in a community. In contrast, other researchers have had a more structurally focused definition of social capital. For instance, Malecki (2012) defines social capital as ‘how people function productively with other people’. Part of the concern over inconsistent operationalisation of social capital is driven by limited evidence for social capital contributing towards regional economic growth, the circular nature of the relationship between social capital and regional development and that supporters of the social capital theory emphasise the positive outcomes of social capital whilst ignoring the negative impacts in regional development (Taylor, 2010).

In response to the expressed frustration in the literature over the lack of clarity of social capital as a concept, a number of researchers have attempted to provide more concrete definitions and operationalisations of social capital (Eklinder-Frick et al., 2014; Huber, 2009; Narayan & Cassidy, 2001; Nardone et al., 2010). However, in some cases these attempts at clarification have further contributed to the ambiguity of social capital by introducing different labels for established concepts. For instance, Huber provides a very practical and measurable definition of social capital which is the “resources embedded in a social network which can be potentially accessed or are actually used by individuals for actions” (include Lin citation). However, alongside this definition Huber (2009) introduces the components of internal and external social capital, which can be considered similar to established concepts of strong and weak social ties known as bonding and bridging social capital.

The need for the distinction between strong and weak social ties and the associated uses has been clearly established in the works of such researchers as Granovetter (1983) and Putnam (1995). Broadly, *bonding* refers to the relationships that are formed within an in-group and the level of trust that exists within these relationships. For example, *bonding* can be seen as the quality and quantity of relationships an individual has with family, friends, neighbours and others with similar interests such as farmers within a community or an ethnic group (Woolcock & Narayan, 2000; Woodhouse, 2006; Pretty, 2003). *Bridging* has been referred to the social connections that are formed with those in an out-group. For example, *bridging* connections can be those formed by community groups or organisations from different regions or the engagement with multiple levels of government (Woodhouse, 2006; Pretty, 2003; Woolcock & Narayan, 2000). However, this definition of *bridging* has been suggested as too broad and may represent two forms of *bridging*, that of horizontal and vertical or linking *bridging* relationships (Ahuja, 2000). For instance, *horizontal bridging* represents the trust, networks or connections formed with those in an out-group such as

groups, organisations or operators in a different region or market. *Vertical bridging* refers to the trust, networks or connections that is formed with an outgroup at different levels of status and power, such as government or industry bodies (Szreter & Woolcock, 2004; Pretty, 2003).

However it still remains unclear as to the underlying mechanisms and operationalisations of social capital with broad references to trust, connections and networks within these definitions. These conceptualisation issues originate at the foundations of social capital with some researchers perceiving social capital as trust, values and norms whilst others consider social capital to represent the structural connections between persons or groups (Granovetter, 1983; Putnam, 1995). Researchers have attempted to provide clarity in this area by proposing underlying dimensions of social capital. To illustrate, Eklinder-Frick et al. (2014) operationalised the underlying dimensions of social capital as socio-economic, structural and actor-oriented social capital with the aim of encapsulating the multitude of dimensions proposed by past researchers. However, the dimensions proposed by Eklinder-Frick et al. (2014) still presented considerable overlap with existing defined dimensions of cognitive, structural and relational social capital (Nardone et al., 2010). That is, socio-economic or cognitive social capital refers to the shared goals or culture of a social network. Structural social capital refers to the quantity of interactions or connections that exist within a social network. In contrast, actor-oriented or relational social capital refers more to the quality or strength, indicated by level of trust, of relationships or connections within a social network. Therefore, even with the robust discussions on the need to clarify and clearly define social capital and its underlying dimensions, there is still a considerable level of confusion within the literature (Taylor, 2010).

Yet regardless of the problematic development of a well-defined and operationalised theory of social capital, a pattern can be identified within the literature that provides a more stable and concrete definition. For the purposes of this research, and proposed use in future research, social capital as a multi-dimensional construct is defined as “resources embedded in a social network which can be potentially accessed or are actually used by individuals for actions” (Huber, 2009, p. 164; Lin, 2001, pp. 24-25). This definition helps separate the resource-outcome argument and distinguishes social capital from other social factors, such as community/social engagement and volunteerism, that can be an outcome of development (Huber, 2009). These social networks can include connections within in-groups (*bonding*) and between horizontal and vertical out-groups (*bridging*) (Figure 1). The underlying mechanisms that drive these connections can be operationalised as shared values and norms (*cognitive* social capital), the links and interactions existing within a social structure (*structural* social capital) and/or the strength of the connections demonstrated by reported levels of trust between parties (*relational* social capital) (Figure 1). The resources shared within these social networks can include access to services, knowledge and infrastructure.

[insert Figure 1]

Social Capital in Farming and Regional Development

Social capital has been increasingly discussed in farming and regional development literature as being key to successful development and sustainability (Nardone et al., 2010; Cocklin & Alston, 2002; Iyer et al., 2005; McShane, Swinbourne & Quirk, 2012; Woolcock & Narayan, 2000). For instance, Svendsen and Svendsen (2000) discussed the decline in the number of dairy cooperatives in Denmark as a possible reflection of decreased social capital. Svenden and Svenden (2000) defined social capital as the reciprocity and trust in relationships people have with others in society, suggesting a similarity with the relational

dimension of social capital described in the current paper (Nardone et al., 2010). Svenden and Svenden (2000) further suggest that social capital can be accumulated as social networks, similar to the structural dimension of social capital. These social networks do not just exist but need to be built and maintained. The researchers suggested that the Danish Dairy Cooperative was a good example of social capital at work as the success of the cooperative relied on trust and reciprocity. To identify whether decreased social capital could be linked to the decline in the number dairy cooperatives in Denmark, the level of participation in voluntary organisations within this population was assessed (Svenden & Svenden 2000). This research found that although the increasingly competitive market and increases in technology initially contributed to lower levels of trust within communities and a concomitant decline in cooperatives, those communities that remained resilient to these challenges were those whose communities participated in common village activities. Svenden and Svenden (2000) research highlights the value of structural and relational dimensions of social capital in their emphasis of the importance of voluntary community groups to maintain social capital within communities and also the important contribution of social capital to economic growth.

Woodhouse (2006) also suggested a link between social capital and economic growth. This research used population data to identify a link between social capital and economic growth through comparing two regional towns. Woodhouse (2006) conceptualised social capital as both a resource and an outcome through the accumulation of networks and interactions between individuals and groups of individuals. Woodhouse (2006) argued that social capital as a resource is intangible and therefore can only be measured by those factors that result from the accumulation of social interactions such as formal and informal group association, and trust and reciprocity. Woodhouse (2006) targeted two towns of similar population size within the same broad region. However, these towns differed in economic rankings, with one town ranked substantially more prosperous than the other. Woodhouse (2006) assessed economic prosperity through socioeconomic indicators, including education attainment, unemployment level, labour force participation rate and household income. Social capital was measured via a questionnaire that assessed objective and subjective levels of social capital (i.e. number of community groups and perceived trust). Further, social capital was also evaluated through qualitative data obtained from interviews and newspapers. From these comparisons, it was suggested that when two communities face similar challenges to economic development, the community with the higher levels of social capital is more likely to have better economic outcomes.

Nevertheless, Woodhouse (2006) acknowledges that it is difficult to suggest causality in regards to social capital contributing towards economic growth. This was a similar issue identified with Svenden and Svenden's (2000) research where changes in the economic environment affected trust and damaged networks. However, those communities that fared better in terms of economic prosperity in the face of similar challenges experienced higher levels of social capital. These concerns regarding causality, as with much of the social capital literature, have been repeatedly identified as a core challenge in determining the usefulness of social capital in regional development (Taylor, 2010). Woodhouse (2006) believed the qualitative component of his research could provide some insight into this issue. Specifically, Woodhouse (2006) suggested exploring the qualitative data in regards to the two social capital factors that presented the greatest differences between towns. These factors included informal associations with friends and neighbours (similar to bonding social capital) and bridging social capital. It was suggested that informal associations, the bonding social capital, created greater economic support for local businesses and thus prevented the 'leakage' of business and retail expenditure. The proposed mechanism for this was the encouragement of the community to support the local businesses during the Christmas shopping period by the

local newspaper. In regards to bridging social capital, Woodhouse (2006) suggests that this is evidenced through the example of a local school principal seeking support and funding from three levels of government to develop a technology centre that would increase skilled workers within the community. This example suggests vertical bridging social capital was higher in this community as vertical connectedness and communication was required to secure the funding and as such provide opportunities for better outcomes for members of the community. However, though Woodhouse (2006) suggests that this evidence indicates a causal association between social capital and further economic growth, it still remains unclear whether the level of social capital was possible due to the economic prosperity in itself.

Research by McManus et al. (2012) also used qualitative methods to assess the level of social capital amongst farmers in rural New South Wales, Australia. McManus et al. (2012) conducted interviews with 115 farmers to identify perceived changes in social capital indicators over the ten years prior to the interview to identify factors that influenced resilience. McManus et al. (2012) discussed social capital as a sense of belonging or community spirit and participation in community or special interest groups. McManus et al. (2012) suggested that a change in perceived levels of social factors would represent a change in feelings towards the community, such as community spirit. These factors included education, health, leisure facilities, employment opportunities, belonging, safety and crime, local environment or housing. Respondents did not perceive a decline in these social factors despite numerous challenges to community well-being, including drought and economic decline. It appeared that social capital an important facilitator for building resilience in rural communities. Thus, if a person perceives high *bridging* and *bonding* social capital within their community, they are more likely to meet the challenges that are presented to the community. This has important implications for how social capital can be used to engage community members in new regional development strategies.

Despite the inconsistency in measurement and conceptualisation of social capital, past research has suggested that increased *bonding* and *bridging* can have positive effects on regional development (Michellini, 2013; Woodhouse, 2006). Yet, researchers have also argued that there can be ‘too much of a good thing’ with high levels of *bonding* social capital detrimental to community/regional development and economic growth (Eklinder-Frick, Eriksson, & Hallén, 2012; Malecki, 2011; Pileček, Chromý, & Jančák, 2013; Woodhouse, 2006). This is consistent with findings presented by Eklinder-Frick et al. (2012; 2014) who found that high levels relational capital (trust) inhibited engagement with bridging ties and thereby decreased opportunities for business development and growth. Further, research has also suggested that connections or ties are only useful if it offers opportunities to bridge “structural holes” or gaps within social connections and networks. This bridging enhances sharing of resources or provides greater access to other connections (Ahuja, 2000; Hauser, Tappeiner, & Walde, 2007). However, research has indicated that bridging can also be ineffective if the purpose of the connection is unclear and the quality of the relationship is low (Eklinder-Frick et. al., 2012).

Molina-Morales and Martínez-Fernández (2009) offer some clarity to the contribution of social capital to development and growth. They propose that the relationship between social capital and regional development/economic growth is curvilinear in nature. Specifically, relational social capital (trust) is important to initiate growth and innovation but as structural social capital increases, the high relational capital inhibits engagement with bridging connections. This interaction thus stunts innovation and growth. This is partially consistent with Woodhouse (2006) who argues that whilst *bridging* social capital is needed to allow communities to develop and grow with new ideas, its’ success is dependent on a

foundation of good internal relationships and connections that are built by *bonding* social capital. These arguments also support those presented by Granovetter (1983). This curvilinear argument by Molina-Morales and Martínez-Fernández (2009) is perhaps a more practical proposal for the use and process of social capital in regional development where not all forms of social capital are useful or beneficial at all stages of development and across all contexts of development.

What is missing from this discussion on the usefulness of social capital in regional development is whether those directly affected by the development processes perceive social capital to be an important driver of development. This can be an important distinction in the success of a regional development plan. In an investigation on the role of social capital in regional decline, Michelini (2013) identified that although government and institutions had identified and implemented empirically sound strategies that should have facilitated social networks, the lack of interest and engagement by the farmers resulted in the degradation of those initial networks and thus a further collapse of existing social capital. Further, it is also unclear as to what types of social capital these stakeholders would identify as important for regional development. Perhaps a bottom-up approach is needed in the investigation of the role of social capital in regional development. This approach may begin by identifying stakeholders awareness, understanding and perceived importance of the multiple forms of social capital in facilitating regional development. By doing so, the underlying mechanisms and processes of social capital may be better understood in terms of its practical application and meaningful outcomes. This is an important issue to address as success of new frameworks and policies is currently limited by the understanding and therefore potential engagement of stakeholders.

Current Study

Past research has focused on different types of social capital (bonding and bridging) and assessed it via different indicators (cognitive, structural, relational). There is limited research applying a holistic definition of social capital. The current study proposes that these multiple conceptualisations and methods of measurement should not necessarily be limited as this would result in the exclusion of important components of social capital.

The aim of this article is to explore social capital as a facilitator of regional development through enhancing farming business sustainability within a region. The data for this article was extracted from a broader project that aimed to explore the factors that regional, state, and national stakeholders perceived to be important in facilitating farming sustainability for regional development. The broader project sought to identify agriculture's contribution to regional development within a place-based framework. As such, the aim of the broader project was not initially framed around contribution of social capital to regional development. The importance of social capital became apparent during the focus groups and analysis of the qualitative data. Therefore, focus group questions were not framed around social capital. This indicates that the contribution of social capital naturally emerged from participant discussions.

RESEARCH METHOD

Research design

The current study was qualitative in design and targeted a single agricultural region, the Wet Tropics in North Queensland. Exploratory qualitative research was the most appropriate for this study as there is a gap in research that explores stakeholder attitudes towards regional development. The Wet Tropics was identified as it has undergone significant change as a result of industry deregulation, globalisation and repeated natural disasters (Tropical Cyclones) (Turnour et al., 2013). Due to these challenges, the region has sought to diversify its core industries and governments have also responded with a range of environmental and regional development programs (Turnour et al., 2013). The project was reviewed and approved by James Cook University HREC (H5107).

Sample

Participants were invited to participate in one of three focus groups regarding the future development of the Wet Tropics region in North Queensland, Australia. Participant recruitment was guided by theoretical sampling techniques (Silverman, 2001) and through consultation with industry peak bodies. One focus group consisted of 19 participants and included farmers/producers, local agri-business operators, and regional agricultural and tourism industry representatives. This focus group was held at a meeting hosted by a regional non-for-profit organisation who works with community, industry and government to ensure the sustainable management of natural resources. This regional organisation includes members from a variety of industries and community organisations such as agriculture, local government, conservation groups and tourism. As such, the number of attendees far exceeded what is an appropriate number of participants for a single focus group, which is 6-10 people (Rabiee, 2004). The 19 participants were divided into smaller groups, each consisting of approximately 6 participants. A research assistant facilitated discussion in each smaller group. These groups were then brought together for a broader discussion on individual group findings.

The second focus group consisted of 7 participants and included predominantly state level industry peak body representatives as well as state government department personnel. The third focus group consisted of 8 participants and included individuals who predominantly represented federal government departments and also included national organisations concerned with regional development as well as national industry body representatives.

Materials and procedure

As mentioned previously, the current study was a part of a broader project that sought to identify agriculture's contribution to regional development within a place-based framework. For this project, potential participants who were targeted based on their affiliation with an industry peak body or government department were sent an invitation along with a discussion paper three weeks prior to each respective focus group. For the regional focus group, the discussion paper was available to the targeted regional non-for-profit organisation. However, not all participants who attended this focus group had access to this document prior to participation as the meeting was also open for public attendance. As such, for the regional focus group all attendees were informed of the project, provided with information sheets and informed their participation was voluntary.

The discussion paper outlined the history of development in the target region as well as some of the key challenges faced by that region (Turnour et al., 2013). The discussion paper was based on an extensive literature review of theoretical frameworks and the policy development challenges regarding agriculture's contribution to rural communities and regional development. The focus groups were conducted in a semi-structured manner and were guided

by 3 key questions. These questions were generated from key findings within the discussion paper (Turnour et al., 2013). The questions included:

1. How do you define agriculture and regional development?
2. What are the critical factors and key roles and responsibilities for stakeholders of regional development?
3. What are the key challenges for future development in the region?

It is from participant discussions of these key questions that themes of social capital emerged.

Data analysis

Analysis of the focus group content was guided by directed or deductive content analysis, which involved coding data into predefined categories (Elo & Kyngäs, 2008; Hsieh & Shannon, 2005). Content Analysis is a systematic and objective method that uses theory to develop interview questions and predetermined categories. This method also allows inferences to be drawn about emerging themes based on the context and environment from which the data were collected (Downe-Wamboldt, 1992; Hsieh & Shannon, 2005). This method involved coding the data, creating and designing categories, testing the validity and reliability of these categories, then if appropriate redefining the categories (Downe-Wamboldt, 1992; Hsieh & Shannon, 2005).

In the context of the current study, after approximately 75% of the qualitative data had been analysed, the dataset was given to a team member for review to ensure interrater reliability and theme consensus. The data underwent this second step process before completion to allow for adaptation of themes based on team member feedback and discussion. This process assessed the face and content validity of themes and allowed for themes to be reorganised and redefined. Following this, models were generated so that the data could be visualised more holistically. Categories included key words that, for the theme of social capital, included connectedness, communication, coordination, relationships, integration, collaboration, regionalisation and community support. Categories were then assessed for consistency and major overarching themes identified. This resulted in the re-categorising and reordering of data for the overarching social capital themes of *bonding* and *bridging* capital. These categories included words that were indicators of social capital according to the earlier proposed definition.

FINDINGS

Bonding Social Capital

Bonding social capital was represented in participant discussions of requirements for regional development. Bonding was represented by comments regarding the need for in-groups to be coordinated and communicate as a united body with consistent and clearly identified needs. In-groups were often identified as those groups within the same community group, such as business owners or farmers within the same community. Participants identified that bonds needed to be strengthened within a regional level between familiar groups but acknowledged that this was often difficult due to current funding or policy structures which encouraged a more competitive framework.

National Level Focus Group

Coordinated community (Cognitive SC): *I think the community needs to be a part of the discussion around what they want and ultimately what sort of outcome do they want and do they*

want a landscape with lots of small farms and with people going down to the local school and supporting the school with x number of students, you know that sort of... if the community is interested in those sort of outcomes and then you need to try and work back as to see how you can achieve that.

Regional Level Focus Group

Coordinated community (Cognitive and Structural SC): *A bit of a catchy one for the third point, a united voice gives a stronger voice; it's a bit union-sounding, it's not meant to be, I couldn't think of anything else, but in other words when we're talking about the size or the lack of numbers that we have to have influence over. With government is it's even more crucial that we come into a platform like this and use this to push that information where we need it to go because 15 people saying 15 different things is nowhere near as strong and as clear as one voice.*

State Level Focus Group

Industry challenges to bonding (Relational SC): *and there is no such thing as regional adaptation in agriculture because you've got your individual businesses that have to identify the risks, make the decision, pay for it, and wear the consequences; there's no collective approach to adaptation at a regional level and I'm not sure if that's possible given the structure of the industry.*

Horizontal Bridging Social Capital

Participants also discussed the need for greater connectedness between horizontal out-groups. This horizontal connectedness was considered important for successful regional development. Specifically, focus group participants identified a lack of communication and common direction or goals of different industry groups at a regional level as a major challenge for regional development. For instance, part of the challenge for regional development at a regional level was that different types of farming industries did not communicate with each other and perceived different needs for successful development. These farming industry groups also did not communicate with industries external to agriculture, such as business and tourism. This gap in connectedness was perceived to inhibit development at the regional level as knowledge and resources were not being shared effectively. A lack of support, understanding and communication was also perceived between the urban and farming communities which further perpetuated the disconnection between these communities. Bridging social capital was not only reported as important at a regional level but also at a state and national level. For instance, it was reported that connectedness also needed to occur *between* regions and *across* the country. Additionally, participants reported that a lack of coordination between government departments inhibited successful development in regions.

National Level Focus Group

Inter-Regional Connectedness (Structural and Cognitive SC): *if we think about, and in my experience, we set up the [Forum X], made up of regional development ministers across all of Australia come together regularly to talk about regional development and to try and address common priorities.*

State Level Focus Group

Farming-Urban Connectedness (Cognitive and Relational SC): *... I think there's still a bit of a city romance about agriculture, even though McLeod's Daughters isn't on anymore, I think that people in the city particularly with the farmers' markets and that sort of trend that's happening now, people are becoming more in touch again, even if they don't go to rural communities there's still that idea that they are still connected with them and so I think that that is going to influence policy because even driven from the city, there is an influence.*

Government Department Coordination (Structural SC): *other departments have come to us to get representatives to work on working groups in that recognition that there are some very different issues that impact the ag industries and that sometimes they get buried under the issues of other industries, so now they're talking about having ag-specific working groups in departments other than the ag department. So that's the flavour that the government is taking at the moment and there seems to be a lot of interest and a lot of acceptance that that is actually a reasonable approach so I think that the mood is right and it might change next year, who knows?*

Regional Level Focus Group

Regional Industry Connectedness (Relational SC): *we saw it as a problem of silos where you look after yourself and your own industry, and the problem of integration and it's a bit easier sometimes to concentrate on yourself in silos, rather than integration*

Intra-Regional Connectedness (Structural SC): *There was this paddock-to-plate conceptualising, making it relevant to bring people together to understand their role, cross-disciplinary, cross-industry sharing knowledge and experience and awareness of mutual responsibility and mutual benefit so it not just about responsibility but about the benefit of being involved whether it's in stewardship or in influencing or in making changes with your own personal business.*

Vertical Bridging Social Capital

Participants also discussed the importance of connectedness and communication to occur vertically across all levels of stakeholders. Specifically, it was recognised by participants that at times there were conflicting policies or goals between the national, state and regional level resulting from a lack of stakeholder communication. Additionally, participants recognised that decisions can be made at a national or state level that directly affects development at a regional level. Yet these decision-makers were likely to have little understanding of the realities at the regional level or have not consulted relevant industry and regional stakeholders. As such, participants suggested that successful regional development also depended on greater connectedness between stakeholders at regional, state and national levels.

National Level Focus Group

Conflicting or Redundant Policies Indicating Lack of Communication (Structural and Cognitive SC): *I think practically that's difficult just because something that I faced in a reasonably limited time in this role is that one of the first criticisms is the kind of, the constraints of federalisation and the states are all trying to do different things in competing, even if they are trying to do the same thing there are so many players, and therefore trying to reduce that duplication and have the communities at the local levels be the decision... more, playing more of the decision making,*

State Level Focus Group

Vertical Connectedness (Relational SC): *We have very well-meaning 14 year old kids in our Department of Industry down in Canberra who sit and look at the national aggregates and base their industry policy on these things that collect what's going on in Australia and bear no resemblance actually to what's going on here, so policy documents are coming out that says we've got no collaboration, blah, blah, blah, when in the regions we can see those sorts of things.*

Regional Level Focus Group

Vertical Connectedness (Cognitive SC): *And we're actually, Person X, I think you mentioned about it's really great after a crisis and I've actually said the same thing because the industries all come together and you're dealing with all levels of government and across all industries and everybody is on the same train and we're all fighting for the same recovery and it's a very single*

focus and it works really really well. I wouldn't say, I hope for another cyclone, but it's sort of a nice space to work in in some ways.

Industry Facilitating Vertical Connectedness (Structural, Cognitive and Relational SC): *They [industry peak bodies] couldn't come almost aligned to government rather than aligned at a grassroots level, they must represent the grassroots, that was really important for them to be really effective but they really needed to be represented of their grassroots but they are in the centre of the business between the farmer and the government.*

DISCUSSION

The aim of this study was to explore the social capital factors that regional, state, and national stakeholders perceived to be important in facilitating farming sustainability for regional development. Specifically, the study sought to identify stakeholder perspectives on the value of social capital in regional development. Across all three focus groups there was a consistent identification of the need for greater connectedness, collaboration, communication and coordination between all stakeholders involved in regional development, throughout regional, state and national levels. That is, being connected with others, clearly communicating needs and wants, and working in coordination with others allows regions to more effectively and efficiently put in place the strategies that they need for their region to develop successfully. The interconnected nature of these factors highlights that agricultural development should not only be driven by farmers and agricultural industry bodies or government departments but by the identified needs and wants of the broader community.

This paper also sought to clarify the types of social capital that were important for regional development. The current findings clearly identify the utility of the proposed multidimensional social capital construct. The emphasis from participants on the important role of all types of social capital is consistent with past research on social capital and regional development (Nardone et al., 2010; Michelini, 2013; Woodhouse, 2006). According to participant responses, one of the perceived major challenges to regional development was a lack of connectedness and shared vision and purpose. There was a perception that the silos, particularly at an industry level, that exist between different stakeholder bodies negatively impacts upon the connectedness between in-group members, affecting *bonding* ties, and out-group members, affecting *horizontal* and *vertical bridging* ties. Relational dimension within bonding social capital may account for the development and maintenance of these silos. It may be that existing high trust between immediate strong ties thus inhibits engagement with others outside this immediate inner circle of strong ties. The role of the cognitive dimension of *bonding* social capital was also evident in participant responses that identified the need for in-group members to work together towards a common goal rather than competing against each other for resources. The importance of out-group horizontal *bridging* was demonstrated in the findings which suggested that for a region to develop successfully, all groups and neighbouring regions, including members of the general community, need to coordinate, communicate and connect. This finding emphasises the utility of both structural and cognitive dimensions of bridging in facilitating development as it requires both a multitude of connections and a shared purpose amongst these connections. *Vertical bridging* was demonstrated in participant discussion regarding the need for greater vertical connectedness and communication, particularly between regional, state and national stakeholders, once again emphasising cognitive and structural dimensions of social capital. These findings regarding *bridging* social capital are consistent with research that argues for the beneficial role of weaker ties to promote greater regional focus and connection of the broader

community and development stakeholders to farmers (Kneafsey, 2010; Marsden & Sonnino, 2008).

Overall, the current research has made a number of contributions. Firstly, the factors that were reported by regional development stakeholders as important for facilitating regional development were representative of bonding and bridging social capital and the underlying dimensions of cognitive, structural and relational social capital. Secondly, in accordance with other research (Eklinder-Frick et al., 2014; Nardone et al., 2010), this evidence provides support for social capital as a multidimensional construct. If applied as such, a multidimensional approach will provide a more comprehensive insight into the types of social capital that that require enhancing in regions. By identifying social capital deficits within a region, more targeted strategies can be implemented to improve outcomes for the region. Thirdly, responses from participants also clearly provide support for research on the negative impacts of components of social capital (Molina-Morales & Martı́nez-Fernańdez, 2009; Nardone et al., 2010; Taylor, 2010). Therefore, social capital would be more helpfully viewed as have a curvilinear rather than a positive linear relationship with regional development (Molina-Morales & Martı́nez-Fernańdez, 2009). This relationship is variable and complex, with the optimal level of different dimensions of social capital within different ties dependent on the stage and context in which development is occurring. Within this approach, regional development high relational capital in bonding ties are important for initialising the development process but becomes less helpful in established stages of development where high structural and cognitive capital within bridging ties is more beneficial. This again is not necessarily a new idea but provides support for discussions on the curvilinear and heterogeneous impacts of social capital in regional development.

The findings within this study are not without its limitations though with the study not being initially framed around identifying the role of social capital in regional development. This presents both benefits and challenges to the generalisation of these findings. As the questions were not framed around existing social capital literature, the responses from participants are not shaped by pre-existing assumptions of the researcher on the nature and role of social capital in regional development. As such, participant responses therefore reflect what was perceived to be most important in general for the specific region's development. However, as questions to participants were not developed from the literature, this also presents challenges to comparisons of past research due to differences in methodology.

The current research suggests that social capital is an important factor in facilitating regional development. The importance of this facilitation can be demonstrated through direct and indirect contributions of farming to the broader regional community such as economic stimulation, regional employment, demand for services, including health and education, and social contributions such as volunteerism and community involvement (Marsden & Sonnino, 2008; Renting et al., 2009). Future research investigating factors that impact upon regional development should consider social capital from the proposed multidimensional perspective. This holistic approach will help to more comprehensively identify the circumstances in which social capital is inhibiting and facilitating development.

REFERENCES

- Ahuja, G. (2000). Collaboration Networks, Structural Holes, and Innovation: A Longitudinal Study. *Administrative science quarterly*, 45(3), 425-455. doi: 10.2307/2667105
- Australian Bureau of Statistics [ABS]. (2003). Australian Social Trends. Canberra: Australian Bureau of Statistics.
- Australian Bureau of Statistics [ABS]. (2012). Australian farming and farmers *Australian Social Trends December 2012*. Canberra: Australian Bureau of Statistics [ABS].
- McShane, C., Quirk, F., & Swinbourne, A. (2012). The role of farming families in future economic and community sustainability. *International Journal of Social Sustainability in Economic, Social and Cultural Context*, 8(3), 111-133.
- Turnour, J., McShane, C., Thompson, M., Dale, A., Prideaux, P., & Atkinson, M. (2013). Accounting for agriculture in place-based frameworks for regional development: discussion paper. Cairns, Qld, Australia: Cairns Institute, James Cook University.
- Beeson, M., & Firth, A. (1998). Neoliberalism as a political rationality: Australian public policy since the 1980s. *Journal of Sociology*, 34(3), 215-231.
- Cocklin, C., & Alston, M. (Eds.). (2002). *Community sustainability in rural Australia: A question of capital?* Wagga Wagga, NSW: Academy of the Social Sciences in Australia.
- Dibden, J., & Cocklin, C. (2009). 'Multifunctionality': trade protectionism or a new way forward? *Environment and Planning A*, 41, 163-182. doi: 10.1068/a40127
- Dibden, J., Potter, C., & Cocklin, C. (2009). Contesting the neoliberal project for agriculture: Productivist and multifunctional trajectories in the European Union and Australia. *Journal of Rural Studies*, 25(3), 299-308. doi: <http://dx.doi.org/10.1016/j.jrurstud.2008.12.003>
- Downe-Wamboldt, B. (1992). Content analysis: Method, applications, and issues. *Health Care for Women International*, 13(3), 313-321.
- Eklinder-Frick, J., Eriksson, L. T., & Hallén, L. (2012). Effects of social capital on processes in a regional strategic network. *Industrial Marketing Management*, 41(5), 800-806. doi: <http://dx.doi.org/10.1016/j.indmarman.2012.06.007>
- Eklinder-Frick, J., Eriksson, L. T., & Hallén, L. (2014). Multidimensional social capital as a boost or a bar to innovativeness. *Industrial Marketing Management*, 43(3), 460-472. doi: <http://dx.doi.org/10.1016/j.indmarman.2013.12.014>
- Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of advanced nursing*, 62(1), 107-115.
- Fraser, C. E., Smith, K. B., Judd, F., Humphreys, J. S., Fragar, L. J., & Henderson, A. (2005). Farming and mental health problems and mental illness. *International Journal of Social Psychiatry*, 51(4), 340-349.
- Godfray, H. C. J., Beddington, J. R., Crute, I. R., Haddad, L., Lawrence, D., Muir, J. F., . . . Toulmin, C. (2010). Food security: the challenge of feeding 9 billion people. *science*, 327(5967), 812.
- Granovetter, M. (1983). The strength of weak ties: A network theory revisited. *Sociological theory*, 1(1), 201-233.
- Harvey, D. (2005). *A brief history of neoliberalism*. Oxford: Oxford University Press.
- Hauser, C., Tappeiner, G., & Walde, J. (2007). The Learning Region: The Impact of Social Capital and Weak Ties on Innovation. *Regional Studies*, 41(1), 75-88. doi: 10.1080/00343400600928368
- Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative health research*, 15(9), 1277-1288.

- Huber, F. (2009). Social capital of economic clusters: Towards a network-based conception of social resources. *Tijdschrift voor economische en sociale geografie*, 100(2), 160-170. doi: 10.1111/j.1467-9663.2009.00526.x
- Iyer, S., Kitson, M., & Toh, B. (2005). Social capital, economic growth and regional development. *Regional Studies*, 39(8), 1015-1040.
- Kneafsey, M. (2010). The region in food—important or irrelevant? *Cambridge Journal of Regions, Economy and Society*, 3(2), 177-190.
- Lawrence, G. (1987). *Capitalism and the countryside: The rural crisis in Australia*: Pluto Press.
- Lawrence, G., Richards, C., & Lyons, K. (2013). Food security in Australia in an era of neoliberalism, productivism and climate change. *Journal of Rural Studies*, 29(0), 30-39. doi: <http://dx.doi.org/10.1016/j.jrurstud.2011.12.005>
- Lemke, T. (2001). 'The birth of bio-politics': Michel Foucault's lecture at the College de France on neo-liberal governmentality. *Economy and society*, 30(2), 190-207.
- Lin, N. (2001). *Social Capital : A Theory of Social Structure and Action*. Port Chester, NY, USA: Cambridge University Press.
- Lobell, D. B., Burke, M. B., Tebaldi, C., Mastrandrea, M. D., Falcon, W. P., & Naylor, R. L. (2008). Prioritizing climate change adaptation needs for food security in 2030. *science*, 319(5863), 607-610.
- Malecki, E. J. (2011). Regional Social Capital: Why it Matters. *Regional Studies*, 46(8), 1023-1039. doi: 10.1080/00343404.2011.607806
- Marsden, T. (2003). *The condition of rural sustainability*: Uitgeverij Van Gorcum.
- Marsden, T., & Sonnino, R. (2008). Rural development and the regional state: Denying multifunctional agriculture in the UK. *Journal of Rural Studies*, 24, 422-431.
- McManus, P., Walmsley, J., Argent, N., Baum, S., Bourke, L., Martin, J., . . . Sorensen, T. (2012). Rural Community and Rural Resilience: What is important to farmers in keeping their country towns alive? *Journal of Rural Studies*, 28(1), 20-29. doi: <http://dx.doi.org/10.1016/j.jrurstud.2011.09.003>
- Michellini, J. J. (2013). Small farmers and social capital in development projects: Lessons from failures in Argentina's rural periphery. *Journal of Rural Studies*, 30(0), 99-109. doi: <http://dx.doi.org/10.1016/j.jrurstud.2013.01.001>
- Molina-Morales, F. X., & Martínez-Fernández, M. T. (2009). Too much love in the neighborhood can hurt: How an excess of intensity in trust in relationships may produce negative effects on firms. *Strategic Management Journal*, 30, 1013-1023. doi: DOI: 10.1002/smj.766
- Narayan, D., & Cassidy, M. F. (2001). A dimensional approach to measuring social capital: development and validation of a social capital inventory. *Current sociology*, 49(2), 59-102.
- Nardone, G., Sisto, R., & Lopolito, A. (2010). Social Capital in the LEADER Initiative: a methodological approach. *Journal of Rural Studies*, 26(1), 63-72. doi: <http://dx.doi.org/10.1016/j.jrurstud.2009.09.001>
- Perkins, D. D., Hughey, J., & Speer, P. W. (2002). Community Psychology Perspectives on Social Capital Theory and Community Development Practice. *Journal of the Community Development Society*, 33(1), 33-52. doi: 10.1080/15575330209490141
- Pileček, J., Chromý, P., & Jančák, V. (2013). Social Capital and Local Socio-economic Development: The Case of Czech Peripheries. *Tijdschrift voor economische en sociale geografie*, 104(5), 604-620. doi: 10.1111/tesg.12053
- Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of democracy*, 6(1), 65-78.

- Rabiee, F. (2004). Focus-group interview and data analysis. *Proceedings of the nutrition society*, 63(04), 655-660.
- Renting, H., Rossing, W., Groot, J., Van der Ploeg, J., Laurent, C., Perraud, D., . . . Van Ittersum, M. (2009). Exploring multifunctional agriculture. A review of conceptual approaches and prospects for an integrative transitional framework. *Journal of Environmental Management*, 90(2), S112.
- Silverman, D. (2001). *Interpreting qualitative data: methods for analysing talk, text and interaction* (2 ed.). London: SAGE.
- Svendsen, G. L., & Svendsen, G. T. (2000). Measuring Social Capital: The Danish Co-operative Dairy Movement. *Sociologia Ruralis*, 40(1), 72-86.
- Taylor, M. (2010). Clusters: A mesmerising mantra. *Tijdschrift voor economische en sociale geografie*, 101(3), 276-286. doi: 10.1111/j.1467-9663.2009.00583.x
- Tonts, M., & Jones, R. (1997). From state paternalism to neoliberalism in Australian rural policy: perspectives from the Western Australian wheatbelt. *Space & Polity*, 1(2), 171-190.
- Westlund, H., & Adam, F. (2010). Social capital and economic performance: A meta-analysis of 65 studies. *European Planning Studies*, 18(6), 893-919.
- Woodhouse, A. (2006). Social capital and economic development in regional Australia: A case study. *Journal of Rural Studies*, 22(1), 83-94.
- Woolcock, M., & Narayan, D. (2000). Social capital: Implications for development theory, research, and policy. *The world bank research observer*, 15(2), 225-249.

FIGURES

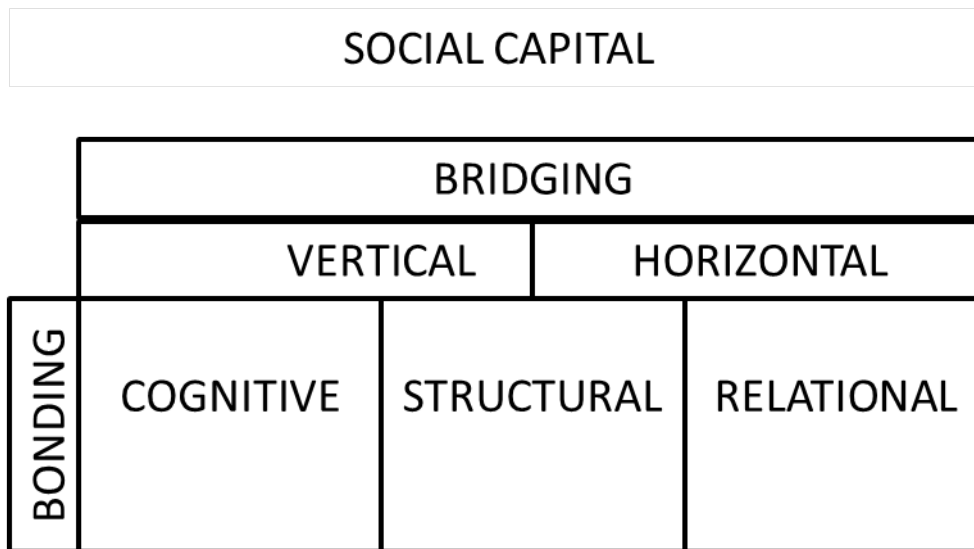


Figure 1. Conceptual model of social capital as a multi-dimensional construct.