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Improving Business Investment Confidence in Culture-Aligned Indigenous Economies in Remote Australian Communities: A Business Support Framework to Better Inform Government Programs

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Abstract

There is significant evidence that culture-aligned economies are more effective in engaging remote-living Indigenous Australians in work long-term. Despite this evidence, governments remain resistant to investing substantially in these economies, with the result that low employment rates persist. This article argues that governmental systems of organisation are not designed to support non-mainstream economies and this position is unlikely to change. Similarly, the commercial sector lacks confidence that investing in culture-aligned economies will generate financial returns. This article presents a localised, pragmatic approach to Indigenous business support that works within existing systems of government, business and culture. Most unsuccessful programs fail to recognise the full suite of critical factors for sustained market engagement by both business and Indigenous people. This article reports on work to bring all critical factors together into a business support framework to inform the design and implementation of an aquaculture development program in a remote Indigenous Australian community.

Keywords

Indigenous, policy, culture, economic development, systems, business, aquaculture

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Successful Indigenous Economies—Shifting the Focus from "What Economies to Support" to "How to Support Them"

Public sector managers tasked to address economic development in remote Australian Indigenous communities face a highly complex network of interrelated problems and competing value perspectives. Indigenous social and economic disadvantage has long been considered Australia's most intractable and shameful of societal problems. Indigenous health is, on average, poor across the entire life span, contributing to a life expectancy that is 11.5 years less for Indigenous men and 9.7 years for women compared to non-Indigenous Australians (Australian Bureau of Statistics [ABS], 2012; Australian Institute of Health and Welfare, 2014). Those living in remote locations are the most marginalised and the most disadvantaged people within Australia (Australian Commonwealth Government, 2014; Steering Committee for the Review on Government Service Provision [SCRGSP], 2011; Sutton, 2009). In 2011, there were close to 143,000 Indigenous people living in remote or very remote regions of Australia, representing just 22% of the total Indigenous population of about 670,000 (ABS, 2012). Economic development and employment equity are just one of a suite of strategic areas that successive state, territory, and federal governments continue to pursue to address this highly complex and challenging problem. Other strategic areas range across child development, education, health, and community functioning (Head, 2008). Despite these sustained and seemingly holistic and collaborative efforts, employment rates remain low. In remote areas of Australia, the Indigenous employment rate in market-based jobs is estimated to be 38.9% for males and 30.7% for females (Gray & Hunter, 2011), while 82% of Indigenous youth (15 to 24 years old) are not engaged in either work or education (Forrest, 2014).

Over the past decade, a vast body of knowledge has been generated about what type of economies are commercially viable in remote regions of Australia and what type of work opportunities are effective in engaging Indigenous people and lifting employment rates (see Fleming, Petheram, & Stacey, 2014). The barriers to establishing viable market-based businesses in remote Indigenous-owned estates are similar to many other remote areas of Australia, such as long distances to market, low productivity of the land, lack of skilled workers, and inadequate infrastructure (Dillon & Westbury, 2007; Gorman, Whitehead, Griffiths, & Petheram, 2008). Both the Australian and international literature on Indigenous participation in work and entrepreneurship for small business development has highlighted how culture, and the associated worldviews and values that are framed by a person's culture, impacts on engagement in economic activity (Fleming et al., 2014). Success has occurred where culture and market align, and where effort has focused on small business creation within Indigenous communities (Ord & Mazzarol, 2007). Examples within Australia include the Indigenous land management initiatives (Working on Country, Indigenous Rangers, Indigenous Protected Areas) (Altman & Kerins, 2012; Bauman & Symth, 2007) and the Indigenous visual arts sector (ACG, 2013). Stand-alone Indigenous-run businesses also tend to be successful when integrated with culture, such as the cultural tourism sector (Whitford & Ruhanen, 2009) and some wildlife harvest enterprises (Zander, Austin, & Garnett, 2014).

Given the significant focus over the past decade on suitable economies for Indigenous Australians living remotely, it is surprising how little attention has been given to *how* government, business, and other stakeholders can best support Indigenous economic development. A significant body of literature advocates the need for various organisations to change to better support Indigenous

development initiatives, but these changes require a concerted commitment and resourcing, which generally does not eventuate. For instance, governments are asked to significantly change either their organisational structure, service delivery, consultation processes, collaborative arrangements, or funding provision strategies (Dillon & Westbury, 2007; Hunt, 2013a, 2013b; Trudgen, 2000), and increasingly, businesses are asked to change their organisational culture to better accommodate Indigenous participation in the workforce (Forrest, 2014; Jordan, 2010, 2011). Conversely, calls are made for Indigenous people to change, to various degrees, their culture (Jordan, 2011; Sutton, 2009) and/or lifestyle (Forrest, 2014; N. Pearson, 2010) to better align with mainstream Australian economies.

In the past two decades the New Zealand, United States, and Canadian governments have raised Indigenous participation in economic activity through a shift in government policy that encourages self-directed advancement (within a politically supported move to reassert Indigenous nationhood) and accommodates non-economic motivations (cultural and social) for engaging in the economy (Hindle & Landsdowne, 2005; Hindle & Rushworth, 2002; Wilkins, 2007). That is, these governments have both (a) adapted to support the *types of economies* known to promote Indigenous advancement (and thus lever the cultural and social motivators essential for engagement), and (b) adapted to the *processes of advancement* needed to successfully facilitate Indigenous economic development. Such policies have leveraged partnerships between Indigenous communities and businesses through foundational programs aimed at supporting labour market development, business development, and community economic development (Government of Canada, 2009). This has led to an emergence of alternative business models that deliver solid financial returns while at the same time meeting Indigenous aspirations for community development through social entrepreneurship (namely, enterprises that aim to raise the socioeconomic status of communities and preserve cultural heritage) (Anderson, Dana, & Dana, 2006). Rather than seek to change the systems of government and business to align with Indigenous culture, or vice versa, these governments have provided an enabling environment for business and culture to co-produce mutually beneficial commercial arrangements without compromising the motivators and value systems of either.

Although Australian state, territory, and federal governments invest to a degree in culture-aligned economies, most notably the Indigenous land management initiatives (Zander & Garnett, 2011) and the regional Indigenous art centres (ACG, 2013), the level of investment is grossly inadequate given the magnitude of the demand for jobs in remote Australia (Forrest, 2014). To substantially grow and expand these employment sectors would require concerted investment by both governments and the commercial sector. It seems that governments have supported these programs to the extent that market and culture mesh with existing systems and processes of governmental organisation, but those systems and processes are not able to adapt to the extent required to fully support non-mainstream, culture-aligned economies as a primary policy platform. Businesses are similarly not able to adapt to suit Indigenous ways of doing business and being employed, and generally will only engage with the Indigenous sector to the extent that mainstream commercial principles of profit and employment arrangements apply. Programs that rely only on cooperation and compromise (from either culture, commerce, or government, or mixes of each) do not generally lead to lasting success. Similarly, there are many examples of small Indigenous organisations and individual managers that achieve local employment success by establishing government subsidised economies, but the effort is not generally sustainable and often leads to burnout and eventual failure once key drivers move on (Mahood, 2012). Clearly, rather than peripheral or transient players driving development, existing systems must drive the process—in particular, market forces for

supply and demand, and Indigenous motivations for self-determination through economic independence.

Improving Investment Confidence—Using a Framework to Address Key Success Factors

To improve governmental and business investor confidence in culture-aligned, market-driven economies, governments and the business sector need a better understanding of the factors critical to achieving success within Indigenous businesses, and a development framework that ensures all success factors are addressed. Ord and Mazzarol (2007) highlighted the need to create effective Indigenous enterprise and entrepreneurship frameworks that can be used to facilitate partnerships between business and Indigenous communities, but at the same time recognise and accommodate the significant differences between Indigenous and non-Indigenous motivations and capacities for engaging in entrepreneurship. Similarly, a Canadian review of the literature into best practice in Indigenous economic development noted the lack of a cohesive theoretical and practical frameworks for determining what works and what does not (First People Group, 2009). Use of such a framework to inform Indigenous business development would allow evaluation of both program design and the process of program implementation. If programs fail to address just one success factor then they are likely to be unsuccessful, unless action is taken to address this failure point. Such an approach would provide government and the business sector with greater certainty that investment in culture-aligned economies will deliver commensurate financial returns and sustained Indigenous employment results.

Effective Program Design—Identify and Engage with Key Systems Involved in Success

The key to success is to design programs where existing systems involved in effective program delivery drive the development programs, particularly market forces aimed to generate profits and Indigenous drivers for self-determination through economic independence. The challenge is to (a) gain an understanding of the key factors that are critical to success, (b) identify the existing systems that influence and/or drive development, and (c) engage with these systems (and associated success factors) when designing and implementing programs. The definition of "systems" used here refers to large and complex organisational systems of government and business, made up of interrelated parts or components (structures) that cooperate in interdependent processes (behaviours). Such systems generally involve people, processes, and technology (Head, 2008). In the context of this article, systems also include Indigenous political, economic, and social systems, made up of groups of people involved in persistent patterns of interpersonal relationships (social relations), who share the same geographical or social territory and share distinctive institutions of governance, political authority, and dominant cultural expectations (Wikipedia, 2014). For Indigenous peoples, such systems typically involve individuals who belong within a complex kinship network, in addition to their lands and seas and the resources contained within them—which are inseparable from the people, their culture, and their identity (Anderson et al., 2006; Ganesharajah, 2009).

Head and Alford (2013) proposed that systems thinking allows a holistic and interactive approach to analysing policy solutions to "wicked problems"[1] as it can be used to search for factors that may contribute to their nature. Policy makers can then identify both the core processes within an organisation that are essential to addressing a wicked problem, as well as the auxiliary or parallel processes outside each organisation, or in the wider society, that needs to be engaged with. This article examines the process of formation of an Indigenous economic development policy and implementation of its programs through the systems lens. It seeks to engage with existing systems (and address associated success factors) that drive the development process, but require little or no change to achieve success. From this analysis, a business support framework was designed to bring together these systems into a collaborative, multidisciplinary arrangement between key stakeholders. In doing so, this brought together a collection of key knowledges from each discipline that allowed for collective enquiry, learning, and decision-making across all key success factors.

A case study was used to test the framework at the coal-face of implementation— that is localised, place-based programs and activities to support Indigenous economic development based on current knowledge of what works in terms of remote economic development, community development (with a focus on both economic and social entrepreneurship), and effective engagement with Indigenous political, economic, and social systems. It reports on a program to support sea-based aquaculture enterprises implemented by the Northern Territory Government in partnership with key stakeholders and the Indigenous community of Warruwi on Goulburn Island, located in the western Arnhem Land region. The term "enterprise" is defined here as small businesses aimed at profit but with a broader focus on political, social, cultural, environmental, and economic goals. This article focuses on the first 4-year evolution of program implementation from an initial pragmatic focus on technical and commercial success factors to a suite of programs to address the technical, commercial, managerial, social, and cultural constraints identified through the systems approach to designing programs.

Program Design

Identify the Key Factors for Success in Indigenous Enterprise Development

Over the past decade a number of attempts have been made by various government agencies and consultants to establish commercial aquaculture enterprises and businesses in northern Australian Indigenous communities. Fleming et al. (2014) reviewed the failure points associated with these projects, which include technical and commercial issues that pose a risk to commercial viability as well as significant social and cultural barriers to engagement, participation, and control by the Indigenous clients. In 2011, this ongoing failure prompted the Aquaculture Unit of the Northern Territory Government's Fisheries Division to conduct a literature review of the key success factors for viable community-based enterprise development and Indigenous engagement. In August 2011, a stakeholder workshop was held in Darwin and was attended by about 30 practitioners involved in

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[1] Wicked problems are seemingly intractable problems characterised by their problem complexity (where every problem interacts in a system or network of interrelated problems) and stakeholder divergence (arising from competing value and interest perspectives). Wicked problems are also generally associated with institutional complexity (and inflexibility) in the context of inter-organisational cooperation and multilevel managerial governance (Head & Alford, 2013).

Indigenous development programs in remote communities across northern Australia. The aim of the workshop was to draw directly from practitioners' experiences and learnings in the field.

Tables 1 to 3 summarise the three key success themes that emerged from the workshop and from key Australian and international studies and policy analyses. These are cultural engagement, business development, and market drivers. Within each of these themes, three key elements for success emerged, giving a total of nine success factors to guide the design of policies and programs.

Within cultural engagement the three main determinants of Indigenous participation in business development programs were:

a. Effective cross cultural communication and relationship building;

b. Effectively clarifying community aspirations and goals; and

c. Valuing both traditional and Western knowledge as an important engager of Indigenous people in enterprise development processes.

Within the business development theme the three main determinants of economic viability were:

a. Provision of research and development (R & D) that improves entrepreneurial opportunity, and economic viability and certainty;

b. Capacity building both of individuals employed by the enterprise and of community organisations responsible for community governance, and business planning and management;

c. Ensuring access to physical infrastructure, land tenure, and availability of adequate financial resources over realistic timeframes.

Within the market driver theme the three key elements for success were:

a. Identifying viable internal (community-based) and external (mainstream) markets;

b. Recognising the impact of government policy on program viability and the ability of communities to focus on planning and development; and

c. Deeply appreciating that cultural primacy and the goal of self-determination and economic independence are the foundations that underpin all development aspirations for Indigenous people.

Table 1. Success Factors that Impact on Effective Cross-Cultural Engagement

Communication & Relationship[a]	Clarifying Aspirations[b] (Motivations for Entrepreneurship)	Valuing Both Traditional & Western Knowledges[c]
Governments and other stakeholders: • Engage in local, authentic communication and consultation • Engage in strategic, partnership-based collaborative approaches with communities • Ensure communities are engaged in priority setting and actively leading decision-making in program design, development, and implementation • Responsive to Indigenous priorities • Committed to long-term sustainable relationships based on trust and integrity • Plan for timelines set according to cultural protocols • Design processes that build local capacity • Ensure effective communication and knowledge transfer to key sectors of the community • Appreciate the influence of the historical and social context of communities on program design • Have cultural knowledge and understanding of each place • Recognise the contemporary fluidity of community life • Seek to build a "shared understanding" and build agreed meanings and ways forward • Work with local governance structures and, in particular, with local Traditional Owners, Elders, and organisations • Use culturally appropriate communications methods that enable local people to be fully informed	Governments and other stakeholders: • Understand the extent that social and cultural norms impact (positively or negatively) on engagement in entrepreneurship • Understand that the prime motivation for Indigenous entrepreneurs globally appears to be for self-determination through preservation of heritage, customs, and traditions • Recognise the dynamic potential inherent in culture, rather than seeing it as a problem blocking commercial development • Recognise that Indigenous entrepreneurial activities are often embarked upon to achieve desired social outcomes, rather than just economic goals • Recognise that globally social entrepreneurship has an important role to play in the process of addressing the socioeconomic circumstances of Indigenous peoples • Ensure flexible work arrangements to allow Indigenous employees to meet their work, family, and community obligations • Ensure continual improvement of policy is achieved through adequately funded evaluation programs • Ensure evaluation programs align with Indigenous aspirations and wellbeing	Governments and other stakeholders: • Recognise and value the cultural knowledge and skills of community organisations and Indigenous people • Recognise that valuing Indigenous knowledge and building it into the "business" model engages the local community and promotes a strong sense of community ownership of the enterprise • Recognise that Aboriginal leaders perceive that the preservation of knowledge and the development of mechanisms (including economic activities) that perpetuate this knowledge are of highest priority • Appreciate that gaps in existing scientific knowledge may be filled by knowledge about the local ecology and species held by the Indigenous communities • Recognise that strong community engagement can be aided by increasing the use of local knowledge and expertise

[a] Australian Institute of Aboriginal & Torres Strait Islander Studies [AIATIS], 2007; Christie, 2013; G Cole Consulting, 2014; Hunt, 2013a; Nikolakis, 2008; Puszka, Greatorex, & Williams, 2013.

[b] AIATIS, 2007; L. Dana & Dana, 2005; Hindle & Rushworth, 2002; Nikolakis, 2008; Nguyen & Cairney, 2013; Wood & Davidson, 2011; Wood, Davidson, & Fielden, 2012.

[c] Anderson et al., 2006; Fordham, Fogarty, & Fordham, 2010; Hunt, 2013a; Morley, 2014; Nguyen & Cairney, 2013.

Table 2. Success Factors that Impact on Effective Indigenous Business Development

Enterprise Research, Development, & Engineering (Identifying and developing socio-cultural and economic opportunities)[a]	Entrepreneurial Capacity Building (Developing capacity for community governance and business management & individual worker skills)[b]	Infrastructure, Supply Chain, Land Tenure, Capital, & Funding[c]
Governments and other stakeholders: • Appreciate the importance of R & D in facilitating the growth and viability of new business opportunities • Ensure R & D reduces the production and market risk for emerging businesses • Ensure R & D includes investigations into socio-cultural requirements • Ensure R & D is readily available to new, small, and growing businesses	Governments and other stakeholders: • Recognise that successful community-based enterprises are underpinned by good governance. It is the key ingredient—the foundation stone—for building sustainable development in communities • Recognise that engagement is the first hurdle. Using activities like "Working on Country" projects will more effectively engage people and achieve work readiness • Recognise that for community-based enterprises having culture embedded within the business and its operations is vitally important for success • Recognise that communities often lack social, human, and organisational capital as well as financial capital • Ensure community-based enterprises have good organisational governance, business planning, and financial literacy • Recognise the importance of access to business expertise, advice, and mentorship, particularly early on in the business proposal (networks) • Ensure the quality, relevance, and depth of training is at the desired standard to effectively increase the skill level of Indigenous people via formal education and training • Ensure timeframes and funding for external support, training, and mentoring programs are adequate • Ensure business support staff are competent and appropriately skilled in business management and development • Ensure that communities have access to financial and business advice and ongoing support • Recognise that financial literacy is the platform for improvements in Indigenous self employment • Recognise that women may be crucial to the success of businesses as they tend to have a holistic view, are able to maintain systems and processes, and build self-esteem	Governments and other stakeholders: • Ensure access to physical infrastructure—communications, utilities, transportation, land • Ensure people can raise finance on their land to create a business • Ensure availability of financial resources, equity, and debt for new and growing businesses, including grants and subsidies • Assist Indigenous people to access finance that has otherwise not been available through commercial avenues • Recognise that start up funding to assist businesses needs to be coordinated and based on long-term commitment

[a] Hindle & Rushworth, 2002; Hunt, 2013b; Morley, 2014.

[b] AIATSIS, 2007; Forrest, 2014; Hindle & Rushworth, 2002; Morley, 2014.

[c] AIATSIS, 2007; Hindle & Rushworth, 2002; Morley, 2014.

Table 3. Success Factors that Impact on Market Drivers for Indigenous Business Development

Internal & External Market Demand[a]	Government Policy & Programs[b]	Indigenous Self-Determination & Primacy[c]
Governments and other stakeholders:	Governments and other stakeholders:	Governments and other stakeholders:
• Assist Indigenous people identify and develop economically viable, culturally-embedded businesses • Assist Indigenous people engage with the mainstream commercial sector to identify mutually beneficial business opportunities • Identify economically and logistically viable external markets for product export • Recognise the opportunity to develop local markets as well as export markets (national and global)	• Ensure policies encourage and facilitate new and growing businesses • Provide direct government programs to assist businesses at the national, regional, and municipal level • Ensure that existing commercial/institutions do not prevent the emergence of new or growing businesses • Recognise the impact that poor Indigenous development policy can have on programs and community engagement	• Recognise that one of the prime motivators for Indigenous people globally is the desire to rebuild their nations and their communities primarily by exerting control over traditional territories and, in doing so, improve their socioeconomic circumstances • Recognise that a significant motivator for Indigenous people to engage in entrepreneurship is the desire for self-determination and financial independence (particularly from welfare), rather than acquiring wealth • Recognise that the cardinal principle is to motivate and equip people to take control of their own lives and their contemporary living environment • Recognise that some of the key drivers for Indigenous entrepreneurship is the desire for future generations not to have to experience the same hardships as their predecessors, to escape, individually or communally, from poverty, and to provide for family needs • Address power inequalities • Recognise that families and small legally incorporated groups are more successful in enterprises than larger community groups • Where land and environmental issues are concerned, plan at the scale of each group's "country" • Understand that Aboriginal communities are not homogenous but are composed of different language and kinship groups, often with different interests in land so factional disputes are common

[a] Austin-Broos, 2011.

[b] Fordham et al., 2010; Hindle & Rushworth, 2002.

[c] Double W Associates, 1998; Hindle & Lansdowne, 2002; Morley, 2014; Trudgen, 2000; Wood et al., 2012.

Identify and Engage the Systems that Involve the Nine Success Factors

The three themes that emerged from the review process were used to identify and articulate the systems that drive business development. To effectively design policy and programs, three key systems must be engaged: Indigenous cultural systems to direct all planning and implementation activities; business systems to respond to economic opportunity and generate human capital, and resources for all business development needs; and market systems to drive commerce. Figure 1 shows how these external systems (and associated success factors) are brought together within a business implementation framework that can be used by external facilitators to support and drive development programs. The framework also guides the long-term development of Indigenous-run businesses by building capacity for internal (community) systems of Indigenous governance, business management, and communication.

Creating a Collaborative Partnership Framework Based on these Systems

The next step in program design was to identify and engage with the Indigenous clients and key stakeholders (including businesses, government agencies, non-government service providers, and the wider community) that are involved in, or have a stake in, the three systems. These clients and stakeholders can be divided into social and commercial groupings (Figure 2). Within the commercial grouping are the technical R & D providers and businesses. Within the social grouping are those responsible for community planning and development (for both human capital and resource provision) and those responsible for socio-cultural research to facilitate cross-cultural communication, knowledge transfer, understanding, and negotiations. The community straddles both commercial and social groupings as they provide cultural, social, and economic knowledge to both, and partner with stakeholders within each grouping. Underpinning effective collaboration are clearly articulated and informed community aspirations and goals, clarified through culturally appropriate social research investigations. Outcomes are community-identified, but the terms are negotiated between the community and the commercial sector.

Program Implementation

The Case Study Site and Regional Indigenous Fisheries Initiatives

Program implementation was carried out at Warruwi, a small settlement of about 390 Indigenous people on South Goulburn Island, located 280km northeast of Darwin and 3km off the west Arnhem coast (Figure 3; see Fleming et al., 2014 and Gould, 2010 for further detail on the historic, cultural, and economic context of the study site). People from Goulburn Island belong to one of five major clan groups. They follow a patrilineal descent system, which gives clans ownership of particular areas of land, estuaries, beaches, sea, and offshore reefs and islands (Gould, 2010). Rights to sea country are also obtained through matrilineal affiliations where people are classified as "managers" for particular estates. Both owners and managers (sometimes called Traditional Owners and senior Elders) are responsible for that land and its resources.
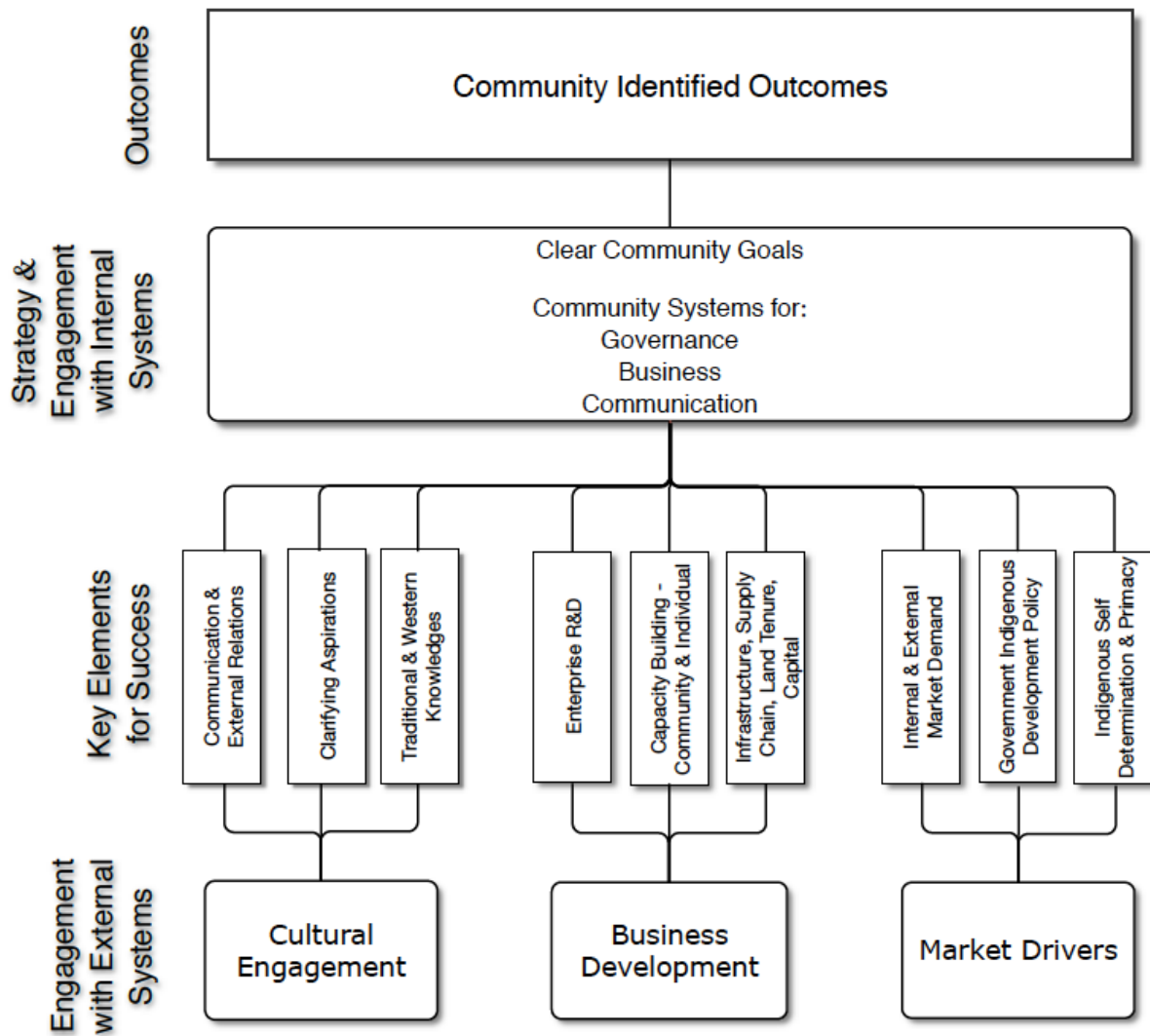
Figure 1. **Implementation framework for critical success factors for Indigenous enterprise development.**
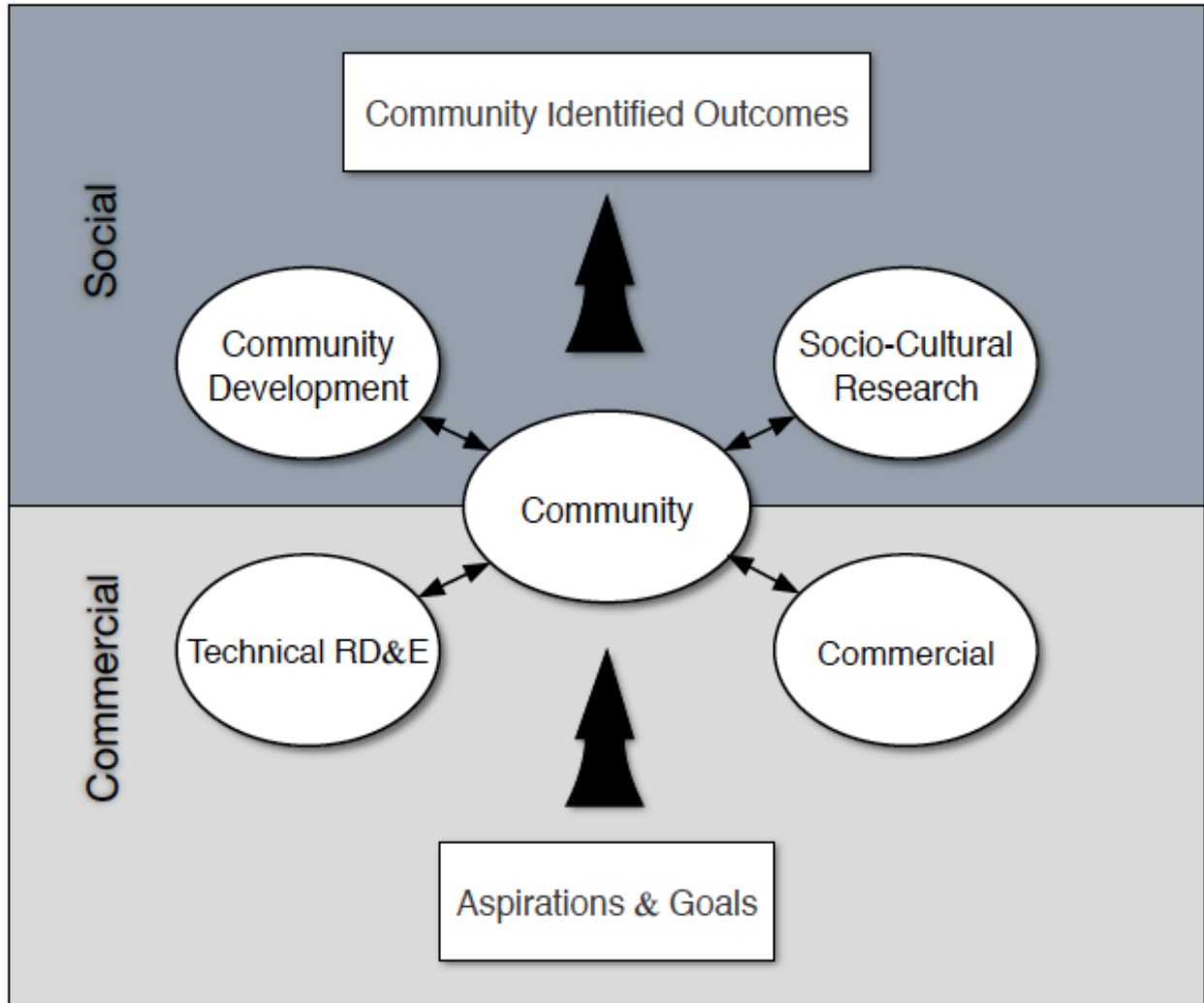
Figure 2. Collaborative partnership framework that engages all key systems for successful business facilitation.
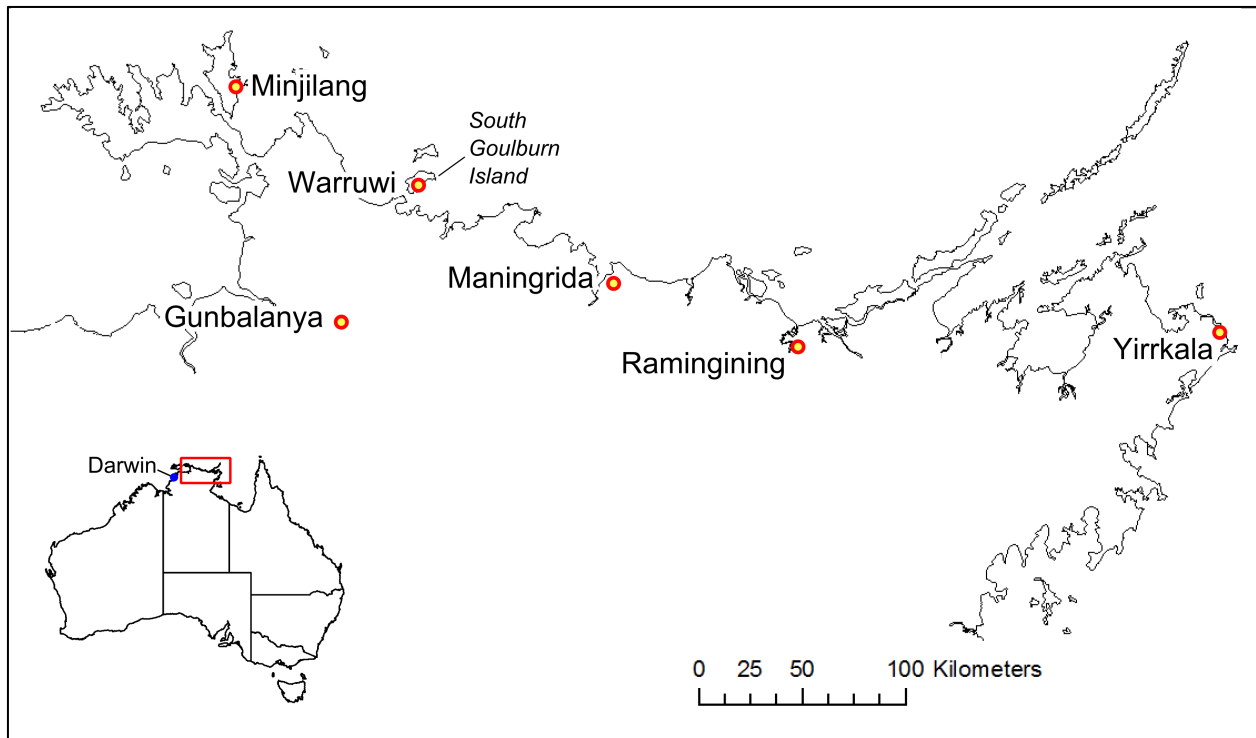
Figure 3. **Location of South Goulburn Island, Northern Territory.**

People from Goulburn Island have a deep connection with their sea country and continue to practice customary harvesting of marine foods and coastal fishing. They have a long history of participation in economic activities with external parties. As early as the mid-1700s, the people of Goulburn Island worked and traded goods with the Macassan seafarers from Indonesia who visited the coast seasonally to fish for sea cucumber (Clark & May, 2013). Contact with European settlers was limited until a Methodist mission was established on the island in 1916 and continued until about 1974. During this period, a range of horticultural, agricultural, fishing, and natural harvest enterprises generated food for self-sufficiency as well as funds through sales (of sea cucumber, oysters, mussels, dugong, turtle, and fish) into Darwin markets (McKenzie, 1976; Northern Territory Administration, 1968; Stanley, 1985). In the early 2000s, two attempts to set up aquaculture enterprises were unsuccessful; one focused on the technical aspects of sea farmed bath sponges (Dobson, 2001, 2003) and another on a significant investment proposal for sea ranched sea cucumbers (Gould, 2010).

In 2010, the Aquaculture Unit of the Northern Territory Government's Fisheries Division and the Warruwi community commenced sea farming trials for sea cucumbers (*Holothuria scabra*; common name sandfish; local name trepang) as well as grow-out trials for cultured blacklip tropical oysters (*Striostrea mytiloides*) and the fluted giant clam (*Tridacna squamosa*). The following reports on the partnerships, programs, and activities to address the nine key success factors for Indigenous business success. Where possible, the report is presented chronologically, but in some instances it is presented to best convey the work achieved and the strategies and learnings behind the work.

Ideally, program implementation would begin with clarifying aquaculture development aspirations by the broader community. At the time, sufficient funds were not available for an extensive

consultative phase, and, as was the case generally, factors were addressed as opportunity, funding, and human resources became available. Initially, the focus was on addressing the technical and market success factors—through R & D programs conducted by the Aquaculture Unit and through analysis of market viability by the commercial sector. As funding was secured, the focus broadened to address the key social, cultural, and managerial success factors. The work presented here shows the progress achieved within the constraints faced at various implementation phases, and the gradual engagement with all three key systems within and outside the community—through cultural engagement, business development, and engaging with market drivers. Over time all nine success factors were addressed, as described in sections 1–10 following (note, the report on Business Development—Capacity Building is reported in two sections: Community and Individual).

1. Market Drivers—Identifying Internal and External Viable Markets

In 2010, the Aquaculture Unit identified potential marine aquatic animal candidates for farming on Indigenous communities that met key criteria for Indigenous business viability—including social, cultural, economic, and environmental viability. Selection criteria were based on the findings of a review into past failure points associated with Indigenous aquaculture enterprise projects in northern Australia (Fleming et al., 2014). In relation to business viability, past projects generally lacked robust market research and supply chain analysis and were dependent on significant start up capital for both production systems and supply chain needs. In addition, failure to engage early with the commercial sector often led to program failure during transition from the R & D phase to business start up. This was likely due to a general lack of business capabilities and resources, such as access to market and supply chain intelligence, financial literacy, business management capacity, access to capital, and lack of financially sound business plans. For these reasons, the Aquaculture Unit recognised that market systems must be engaged early to drive the development process and provide industry knowledge, capacity, and investment certainty while Indigenous capacities for business management are being developed. Based on this, the ability to engage and partner early with the commercial sector was a very strong criterion when selecting candidate aquaculture species in the current program. Markets and supply chains for successful candidate species were either (a) established, and the business partner actively investing in industry development (as was the case for the sea cucumber ranching program), or (b) preliminary market analysis and supply chain analysis performed by the business partner and the product found to have strong market acceptance, be sufficiently high in value, and have viable supply chain requirements (as was the case for blacklip oysters and fluted giant clams).

A single company owns all six wild fishery sea cucumber licences in the Northern Territory and has invested in sea cucumber ranching and stock enhancement R & D since 2004 (Bowman, 2012). Since the 1980s, the company has operated in the wild harvest of sea cucumber across northern Australia, developed processing methods to produce high-value product and established supply chains into Chinese markets via Hong Kong (Fleming, 2012). Currently, Indigenous communities that aim to develop sea cucumber ranching enterprises are dependent on this company for the supply of juveniles and for second stage product processing (both of which are highly skilled and capital intensive technical operations), and for distribution into international markets. As such, it is necessary that, for the foreseeable future, the company and Indigenous communities negotiate mutually acceptable business arrangements that meet the commercial needs and development objectives of both parties. The Aquaculture Unit identified this as a critical element of success in the program and, in 2014, secured funds for a business consultant to work with the Warruwi community and the company to produce a business plan for sea cucumber enterprises. This plan identifies the

most suitable business arrangements to support sea cucumber (and other fisheries) enterprises and progressed negotiation for the terms of agreement between the sea cucumber company and the Goulburn Island community (discussed further in section 2). This natural transition into a business planning and start up phase follows the initial 4-year R & D phase to develop suitable farming methods that were operationally feasible (technically, socially, and culturally), and biologically and economically viable (discussed further in section 5).

A major seafood wholesale distributor in Darwin conducted market research into the blacklip oyster and fluted giant clam. In 2011, he visited Goulburn Island with aquaculture staff, and met with senior authority figures to gauge the community's commitment to supplying oysters and clams (and fish) into Darwin restaurants. He was supportive of a supply model where small volumes of product were sent when in season and when community commitments allowed. This aligned with the high value, "unique cuisine" experience that he planned for Darwin restaurateurs and was keen to explore with the community branding opportunities for Indigenous produced seafood. In Darwin, he distributed oyster and clam samples to top restaurant kitchens so the chefs could handle the product and assess its placement in the restaurant trade. They were very positive about the potential to offer international tourists an exclusive, Indigenous produced, uniquely Australian, seafood cuisine experience.

Ord and Mazzarol (2007) highlighted the choice Indigenous communities have when developing an economic development strategy to target either internal markets that address the market needs of the community, and/or to engage with external mainstream economies. The Goulburn Island community are planning to engage in both types of economies. In addition to the external seafood economies described above, Warruwi people aspire to use their fisheries resources to develop internal markets to meet demand for fresh nutritious seafood. Fleming et al. (2014) found that one of the reasons Indigenous women on Goulburn Island aspired to engage in fisheries activities was to minimise reliance on store purchased foods, and to improve people's diet and nutritional status. The high cost of store purchased foods and the frequently poor quality of fresh product has been cited as a factor in the poor nutritional status of Indigenous people living remotely (Browne, Laurence, & Thorpe, 2009). Internal economies are an obvious and relatively easy enterprise opportunity for Indigenous communities as they require little investment in market development and supply chain infrastructure. Equally importantly, such enterprises offer opportunities that people feel are familiar, realistic, and achievable in terms of the skills, concepts, and education required. Establishment of local markets can be seen as a stage towards engagement with more mainstream markets, offering opportunity for people to develop their capacity at their own pace. The "Warruwi Women's Healthy Tucker Program" was used as a vehicle to meet women's entrepreneurship aspirations to improve the availability of fresh seafood on Goulburn Island (discussed in sections 3 and 4).

In 2011, the Warruwi community established its own not-for-profit community governance organisation (Yagbani Aboriginal Corporation), which is run by a committee comprising representation from each of the five main clan groups living on the island. Yagbani is planning to establish an independent corporate entity to support commercial enterprises and businesses for the benefit of the community. Yagbani's aim is to develop social and cultural programs (art centre, market garden, building and construction, women's projects, aquaculture and coastal line fishing). As such, it targets a diversified portfolio of small business investments that collectively will generate modest profits to support local employment needs.

During the period of program implementation on Goulburn Island, the Northern Territory Government's Fisheries Division secured funds to support East Arnhem Indigenous people establish

fisheries businesses (in the region around Yirrkala shown in Figure 3). The Garngirr Fishing Aboriginal Corporation was formed in 2012. Garngirr's Indigenous board plans to develop a seafood co-operative (similar to Goulburn Island's plans—see section 2) to accommodate the different opportunities and aspirations of the clans living in the East Arnhem region. Licensed Indigenous fishers will decide amongst themselves where they fish within their traditional sea country system of authority, selling their catch to the co-operative. In the first instance, fresh seafood will be sold locally in East Arnhem. When the initiative moves to a commercial phase, the co-operative will take a percentage of sales, and potentially use this revenue to provide boats and fuel for fishers, as well as coordinate processing and marketing (Norwood, 2013). Through this initiative, the Fisheries Division is also supporting the Goulburn Island community to establish a coastal line fishing enterprise. An Indigenous fishing mentor visits the island regularly to train the local men participating in the aquaculture program. He trains them in a range of fishing industry skills, such as net manufacture and use, seafood handling, processing, and packaging to maintain shelf life. As the Goulburn Island and East Arnhem fisheries co-operatives develop across the Northern Territory (and potentially additional Indigenous fisheries initiatives), collaborative opportunities will emerge to achieve economies of scale through regional programs, such as collective marketing and operational support systems, as well as shared capital investments.

2. Market Drivers—Cultural Primacy, Self-Determination, and Economic Independence

For many Indigenous Australians—and for most Indigenous people globally—the primary driver to engage in commercial enterprise and employment is the desire for economic independence and the benefits that this may bring, such as autonomy, self-determination, personal accomplishment, lifting socioeconomic disadvantage—particularly for their families and children; correcting negative social perceptions and social stratification based on race; and preserving heritage, culture, and tradition (Wood & Davidson, 2011; Wood, et al., 2012). Coastal dwelling Indigenous Australians seek from non-Indigenous Australians recognition that they have "certain recognised rights associated with and based on the prior and continuing occupation of country and water and activities (e.g., fishing, gathering) associated with the use and management of these" (Fisheries Research and Development Corporation [FRDC], 2012, p. 1). They seek economic development opportunities arising from their cultural marine assets and associated access rights by engaging "in economic activity based on the use of traditional aquatic biological resources and/or the right to share in the benefits derived from the exploitation of aquatic biological resources" (FRDC, 2012, p. 2). Indigenous Australians also recognise they need significant capacity building opportunities to further their aspirations in the use of aquatic biological resources, and seek to engage with the commercial sector and build their general understanding of fisheries industries (FRDC, 2012). The people of Goulburn Island have expressed similar aspirations. Their motivations for setting up fisheries (and other) businesses are to achieve a degree of economic independence through engaging in culture-aligned employment, and, in so doing, to achieve autonomy over their lives and futures and maintain their cultural heritage (Fleming et al., 2014). For a long time past, Goulburn Islanders have responded to opportunities to engage in fisheries commerce: from the very early contact and trade with the Macassan sea cucumber fishermen who visited the northern Australian coast seasonally from the mid 1700s to the early 1900s, to the mission era from 1915 to 1974 when the community exported seafood under missionary control and management, to the community's current work towards ownership and control of their own fisheries-based businesses.

The strongly expressed motivation by Indigenous Australian people to engage with the business sector is a powerful enabler and driver for market development in remote Australia. The challenge is to equip people with the necessary skills and capacities so that cultural drivers can be mobilised under their own direction and control. To support the Warruwi community in achieving this, the Aquaculture Unit sought to implement key strategies to engage local people in entrepreneurial activities across a number of sectors of the community (senior school students, women, men, and the community organisation). Underpinning all activities was a deep appreciation of cultural primacy and self-determination as key motivators for people's engagement. For example, facilitators sought to understand Indigenous ways of doing business and sought to incorporate these into business arrangements. In this way the program supported Indigenous and commercial partners to negotiate at the interface of culture and commerce, to build business partnerships that accommodated the needs of each, and to jointly develop business models underpinned by the motivational drivers of each.

The business model proposed for the Warruwi community is a foundational step towards the community achieving self-determination and economic independence. Initially, a fisheries co-operative will be established (as a business arm under the Yagbani Aboriginal Corporation) to support the sea cucumber ranching industry, rather than developing a stand-alone seafood business (Ambrose Business Solutions, 2014). Clan-based ranching micro-businesses will be established under the co-operative to allow family groupings (based on traditional kinship relations) to conduct sea ranching (and other aquaculture activities) on their sea country and supply product to the co-operative. The ranching and harvesting stage will be undertaken by the local clan-based micro-businesses, while the processing stage will be undertaken by the co-operative. The co-operative will also provide operational support along with training and mentoring to the micro-businesses. The co-operative model is structured so that the central business operation (Yagbani Aboriginal Corporation) assists with the development, marketing, and support of established and emerging clan-based sea cucumber farming ventures.

The co-operative model recognises that many Indigenous people do not currently possess the fundamental skills and capacities required to work in today's competitive business environment. Lack of strong governance creates a dual barrier as Indigenous people lack the ability to run businesses independently (and so cannot realise their aspirations for self-determination and autonomy) and they lack legitimacy of governance necessary for investor surety and economic development. The proposed business model allows the provision of support from government (and industry) of operational assistance and with training and mentoring (Ambrose Business Solutions, 2014). In this way, the model manages business investment risk by addressing the current barrier posed by limited business capacity of Indigenous people and at the same time puts in place the foundations to achieve their goal of operating and managing stand-alone businesses. It is anticipated that by year 5 and through to year 10, the co-operative will have a number of Indigenous fisheries businesses established and operating on Goulburn Island. However, this is dependent on both direct and indirect funding support from relevant government agencies and a commitment from these agencies for a minimum of 5 years, and potentially up to 10 years.

The capacity to effectively engage in business with each other—the capacity of both the mainstream fisheries sector and Indigenous communities—has been identified as critical in achieving successful Indigenous fisheries businesses (FRDC, 2012). As such, useful learnings (models, processes, and templates) will flow from this work that will benefit other Indigenous communities (and the fisheries sector) when negotiating mutually beneficial terms of agreement.

3. Cultural Engagement—Cross Cultural Communication and Relationship Building

The Traditional Owners and Elders of Goulburn Island had, for many years, expressed a keen interest in sea cucumber farming and other fisheries activities, and had participated in trials and plans during the early to mid 2000s that were unsuccessful. In early 2010, aquaculture research staff were advised by international expert scientists that the marine habitat surrounding South Goulburn Island was potentially suitable for sea cucumber ranching. These considerations led the Aquaculture Unit to select Goulburn Island as the most suitable trial site for its sea cucumber research. Aquaculture staff sought to follow cultural protocols when first engaging with the Warruwi community and were assisted in this by the Northern Land Council (NLC)—the representative body for Indigenous people in this region under both the *Aboriginal Land Rights (Northern Territory) Act* (1976) and the *Native Title Act* (1993). The NLC introduced staff to the appropriate Traditional Owners and Elders with authority to speak for the sea country surrounding South Goulburn Island. These authority figures confirmed their support for fisheries development on the island and directed aquaculture staff to work with the local rangers in fieldwork. Staff worked with the rangers for a period, and then in 2011 they began working with the Community Development Employment Projects (CDEP)[2] team, facilitated by the enterprise development officer for the region who ensured aquaculture activities were formally included in the CDEP work schedule. During this time, senior authority figures on Goulburn Island supported an expansion of the aquaculture program to include grow-out trials for tropical blacklip oysters and fluted giant clams.

In 2011, the Aquaculture Unit sought to engage more broadly with the Warruwi community and approached the local school principal to include aquaculture in the school teaching program. Aquaculture research staff worked with the senior class teacher to give the senior students an understanding of the current aquaculture activities on the island and the future employment opportunities to which they may aspire. The teacher also incorporated the sea cucumber trials (and the island's long history of contact with the international sea cucumber trade) into the class curriculum, teaching across a range of subjects with sea cucumber as the focus. Experiential learning was used where possible. For example, a classroom-based aquarium was set up to allow students hands-on experience in caring for marine animals and understanding husbandry needs. Field trips to the research site also allowed students to learn first-hand about sea farming methods and interact with aquaculture staff.

In 2012, a small social research project on women's views on aquaculture development opportunities, conducted by Charles Darwin University (CDU) and commissioned by the Aquaculture Unit, highlighted the community's view that the aquaculture staff needed to improve communication and knowledge exchange with a broader sector of the community (Fleming et al., 2014). Research participants (female and male) were generally supportive of aquaculture enterprises and the economic and social benefits it may bring, but some lacked knowledge about what the aquaculture work and the proposed business entailed. They also expressed a desire for their traditional sea country knowledge to be valued and used in decision making within the aquaculture program. It

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[2] CDEP is an Australian Commonwealth Government funded initiative that provides activities for unemployed Indigenous people to develop work skills. The Australian Bureau of Statistics classifies participants in CDEP as employed because some activities provide essential services that would be considered employment in mainstream communities (SCRGSP, 2011).

became apparent at this stage of program implementation that cross-cultural communication and knowledge exchange was such a critical element in program success that it required a dedicated staff position. The Aquaculture Unit re-allocated funding from its staffing budget for a dedicated Indigenous aquaculture program coordinator, tasked to focus fulltime on community engagement, cross-cultural knowledge exchange, and communication. Although at the time of writing this position is not filled, it continues to be viewed as a critical element of successful project implementation.

In 2013, funds were secured to engage a female Indigenous academic researcher from CDU to trial various enterprise engagement strategies in the Warruwi community and to further build relationships with specific sectors of the community. One strategy was to engage with Warruwi women to help them establish the "Warruwi Women's Healthy Tucker Program." This initiative emerged from the earlier women's study (Fleming et al., 2014) of the potential for women to take a leadership role in driving development in their communities through a desire to improve the lives of their families and children. For a number of years prior, the women of Warruwi expressed a keenness to establish a healthy food enterprise (supplying wild bush foods and seafood to the community) but had not been able to progress its development. By harnessing women's aspirations to engage in enterprises, the aquaculture program sought to engage a broader sector of the community in fisheries activities (see also section 1 and 4) (Ford & Fleming, in prep).

4. Cultural Engagement—Clarifying Community Aspirations and Goals

From the start of the implementation process, the Aquaculture Unit recognised that the community needed to make informed decisions regarding the type of aquaculture enterprises developed on their island and an understanding of the likely financial and social benefits. Key community leaders had some previous experience of aquaculture industries. For example, a few community members had attended a study tour of Māori-owned aquaculture businesses to New Zealand and others had participated in previous aquaculture projects on the island. In the early stages of the program, these community leaders were instrumental in advocating for fisheries development on the island and facilitating the partnership with the Aquaculture Unit.

As discussed in section 3, it was not until 2012 that funds were secured to conduct a small study to ascertain community (particularly women's) views on the preferred types of aquaculture enterprises and the flow of benefits they sought. Some women attended training in "Participatory Action Research" techniques to allow them to be directly involved in the research process. The study focused on women's views as these are often underrepresented in development initiatives, particularly within past fisheries projects. The findings confirmed that the aquaculture species and farming methods being trialed at the time on the island met the community's development aspirations (Fleming et al., 2014). This was partly due to the early literature review process and the stakeholder workshop that allowed an informed selection of species and farming methods. As reported in Fleming et al. (2014), in general,

> Women's reasons for supporting aquaculture in their community were the diverse social and cultural benefits it may bring, in addition to improving work participation. Female Traditional Owners and senior Elders strongly advocated for generating jobs within the community to engage the younger generations in work. They saw this as an essential aspect of addressing the youth's general disengagement with community life and considered aquaculture a way to encourage greater involvement of the younger generations in sea

country management, to build their capabilities and improve employment opportunities. (p. 169)

In addition, women participants believed aquaculture could strengthen links and improve access to sea country, and improve diets and nutrition, particularly for their own family groups and the elderly (see also sections 1 and 3).

These findings support international reports that Indigenous people seek to engage in entrepreneurship within their cultural worldview and value system. The flow of benefits they seek are likely to be for a range of perceived cultural, social, and/or economical benefits rather than solely for personal economic gains (P. Dana, 1996; C. Pearson & Helms, 2012; Wood & Davidson, 2011). The information gained from the study into women's preferences was used to inform development pathways in terms of sea farming methods, engagement strategies, employment arrangements, business structures, and flow of benefit (as reported throughout this article). It is important to reassess people's aspirations throughout the development process as their views may change over time as they gain a better understanding and as needs and priorities change. In particular, young people's motivations and preferences for working in aquaculture need to be better understood so that employment programs can be tailored to effectively engage this sector.

5. Business Development—Provision of R & D to Improve Economic Opportunity

The suite of R & D trials conducted on Goulburn Island since 2010 aimed to identify suitable grow-out sites and farming systems, and generate production data to conduct economic assessments for the three species under investigation. Table 4 outlines the trials conducted during this period in partnership with Indigenous communities, research partners, and the commercial sector.

In 2010, the Aquaculture Unit partnered with a sea cucumber company to conduct research at the Aquaculture Unit's research facility, the Darwin Aquaculture Centre, into hatchery and nursery methods to mass-produce many hundreds of thousands of sea cucumber juveniles annually. During this period, the Aquaculture Unit also undertook collaborative research (both with the sea cucumber fishing company and with international sea cucumber research agencies in the Philippines and Vietnam) to investigate sea ranching methods and allow comparison of data across trial sites. The company conducted comparable ranching trials at Little Lagoon, on Groote Eylandt in East Arnhem Land.

An equally important objective of the technical research was to develop socially and culturally suitable grow-out methods and husbandry protocols that met the preferred farming practices and employment arrangements of the community. The research done in 2012 into women's preferences for aquaculture reported that women preferred the concept of low maintenance, simple infrastructure, sea-based aquaculture, carried out in a way respectful to culture and directed by community (Fleming et al., 2014). Women were keen to explore ways that aquaculture employment could accommodate cultural commitments and family obligations. They proposed job sharing between the men and women as a potential solution to this tension. In addition to flexible work arrangements, women wanted work opportunities that allowed the youth to regularly visit sea country, learn traditional knowledge, and be involved in healthy (mentally and physically) activities. The sea farming systems developed on Goulburn Island met these work preferences. The research has further refined the farming methods to provide flexible, low maintenance farming systems and husbandry methods that meet people's preferred development pathways, safety concerns, and work practices.

Table 4. Outline of the Trials and Research Conducted during Program Implementation to Develop Viable Aquaculture Farming Opportunities for Indigenous Communities

Time	Objectives	Location	Farming methods	Partnerships (in addition to the community partners)	Funder
			Sea cucumbers		
2010 – 2012	Growth/ survival/ economic viability	Goulburn Island Groote Eylandt	Ranching: hand seeding of 3 - 5g juveniles into intertidal seagrass beds during low tides. Hand harvest during extreme low tides.	Commercial partner Philippines and Vietnam research partners	Australian Centre for International Agricultural Research/ WorldFish
2012 – 2014	Hatchery and nursery juvenile production methods	Darwin Aquaculture Centre		Commercial partner	Australian Seafood Centre for Cooperative Research
2013 – 2015	Juvenile release methods/ suitable site indicators/ non-diving harvest methods	Goulburn Island Groote Eylandt	Ranching: release from boat via chute of 3 - 5g juveniles into intertidal seagrass beds during neap tides. Harvest during extreme low tides (or by boat when technology is developed).	Commercial partner Philippines research partners	Australian Centre for International Agricultural Research/ WorldFish
			Blacklip oysters		
2011– 2013	Suitable sites/ suitable farming methods/ growth/ survival/ economic viability	Goulburn Island Tiwi Islands	Initially in baskets attached to racks in intertidal areas; access only during extreme low tides. In 2013, moved to floating baskets on long line; allows access at any time from a boat.	Commercial partner	Northern Territory Government
2010 – current	Hatchery methods for oyster seed production	Darwin Aquaculture Centre		Commercial advisor	Northern Territory Government
2012 – 2013	Assess heavy metal content of oysters	Goulburn Island		Charles Darwin University	Fisheries Research & Development Corporation
2014 – 2015	Develop Quality Assurance Protocols for shellfish production	Goulburn Island		Charles Darwin University	Northern Australian Marine Research Alliance
			Fluted giant clams		
2011 – current	Suitable sites/ suitable farming methods/ growth/ survival/ transport methods/ economic viability	Goulburn Island Groote Eylandt	Initially in cages secured to sea floor. In 2013, moved to open ranching among suitable reef.	Commercial partner	Northern Territory Government

An example of the importance of choosing appropriate farming systems to suit Indigenous preferences was highlighted during the review of failure points of past aquaculture enterprises (Fleming et al., 2014). An extensive 5-year program into the viability of farming sponges on Goulburn Island did not adequately address the fact that most Indigenous people were not prepared to dive to manage stocks (due to the risk of crocodile and shark attack). In the current trials, sea cucumber farming was initially targeted for intertidal areas where people could seed the juveniles by hand and harvest farmed stocks during extreme low tides. But limiting sea cucumber ranching to intertidal areas constrains the profitability of the business as suitable ranching sites are limited (in terms of presence of seagrass, sediment characteristics, protection from currents, etc.) and stocks tend to migrate to deeper water over time. Research by the Aquaculture Unit led to the development of a successful juvenile release technique conducted from a boat during neap tides, allowing releases at any time of the year. In addition, the commercial operator is trialing a scoop-like harvesting device towed from a boat that aims to improve access to deeper ranching sites and offer safe harvesting throughout the year.

For Indigenous communities to sell shellfish into Australian seafood markets the product must meet the food standards set by the Australian Shellfish Quality Assurance Program (ASQAP), a national program that requires shellfish harvest areas be classified on the basis of a sanitary survey and the results of an ongoing water-sampling program. This precautionary measure is required as shellfish bio-accumulate pathogens, chemicals, and toxins derived from surrounding waters, and because they are often eaten raw or only lightly cooked with the gastrointestinal tract intact. All Australian oyster farmers must routinely monitor potential contaminants to minimise the risk to human health. To address this farming requirement, a yearlong monitoring program was conducted in 2012 to 2013 to measure the heavy metals in tropical oysters and assess the implications for placement of oysters into the Australian seafood market (Fleming, Gibb, Campbell, Fortune, & Birch, 2015). In 2014, this work was expanded to include all potential contaminants listed under the ASQAP food standards. The resulting database will be used to establish a Quality Assurance Protocol for commercial shellfish production in Goulburn Island waters.

6. Cultural Engagement—Valuing Both Traditional and Western Knowledge

Indigenous people place a very high importance on their traditional knowledge being recognised and valued by non-Indigenous people (FRDC, 2012; Northern Land Council, 2004). Recognition and appropriate use of traditional knowledge can be an effective way to engage the community in development programs (Morley, 2014). The 2012 study into Warruwi women's aquaculture preferences highlighted the desire for their traditional knowledge to be respected, valued, and used within the current programs on Goulburn Island (Fleming et al., 2014). As discussed in sections 3 and 4, in 2013, funds were secured to engage a female Indigenous academic researcher from the CDU to trial various enterprise engagement strategies on Warruwi and to further build relationships with specific sectors of the community. One of the engagement strategies sought to gather and document traditional sea country knowledge about the shellfish species being trialed for potential sea farming enterprises on Goulburn Island. It was anticipated that the local knowledge might inform various shellfish farming development decisions by the community and supporting partners. For example, local knowledge may identify the best sites for farming oysters, the best harvesting times for optimal taste and nutritional value, and may also identify environmental cues for times when oysters may be unsafe to eat. The Warruwi community's traditional ecological knowledge was documented on a website, together with Western research conducted in the region on potential shellfish contaminants (Ford & Fleming, in prep).

7. Business Development—Capacity Building—The Worker

In 2011, the aquaculture research staff began a successful collaboration with the local CDEP team (which consisted of about 15 men) to conduct the aquaculture field trials. This arrangement continued until the federal government ceased funding CDEP as an Indigenous employment strategy in mid-2013. After this time, the Aquaculture Unit sourced funds to pay the Indigenous aquaculture team hourly wages for their work supporting research staff in the field. Management of the Indigenous aquaculture team's work program and their work skills development was the responsibility of the community development officer. This officer engaged the CDU's Vocational Education and Training Program to provide locally delivered aquaculture training to the men. For the past two years, a CDU trainer has visited every 4 to 6 weeks to develop the skills needed for the current research work as well as employment skills for the future aquaculture operations. The trainer also provides additional literacy and numeracy education where needed. The aquaculture research staff provide support to the trainees to ensure their skills are practiced during fieldwork. When completed, the men will hold a Certificate II level vocational qualification in aquaculture. An Indigenous coastal line fishing mentor and seafood processing trainer (employed by the Northern Territory Government's Fisheries Division) also provide periodic fishing and seafood processing training to the men, who also gained their restricted Coxswains Certificates. An Indigenous coastal fishing licence was also issued during this period. In 2014, the vocational training program was expanded to include senior students at the local school. The new principal was keen to implement a formal aquaculture school-to-work transition program into the school's curriculum. This program will give senior students formally recognised credits towards a vocational qualification in aquaculture as well as skill sets required for employment in future aquaculture businesses and enterprises on Goulburn Island.

A successful funding application by the Yagbani Aboriginal Corporate (which was facilitated by the Aquaculture Unit and CDU) secured resources for the women's healthy tucker program (to purchase a boat, trailer, bus, and tractor), and included funds for women to gain qualifications in food handling and boat handling. Along with recent access to facilities to house a women's centre, it is anticipated that the Warruwi women will now have all the necessary resources and support to progress their healthy tucker enterprise.

Capacity building of the future workforce for aquaculture enterprises on Goulburn Island progressed well over the 4-year implementation period. Both men and women developed work skills that will allow them to enter into paid work when fishing and aquaculture operations begin. Future capacity building should focus on engaging additional sectors of the community, in particular young adult male and female school-leavers and underemployed young adults who choose to remain living on the island. The senior authority figures constantly advocate for the need to provide employment opportunity for the youth in the community. This is one of the primary community drivers for economic development on Goulburn Island. However, many of the younger generations on Goulburn Island who have expressed aspirations to engage in culture-aligned work on sea country have often experienced challenges in making positive lifestyle choices on a daily basis when provided with such work opportunities. Such responses arise from the effects of decades of welfare dependency (and associated poor lifestyle opportunities, capacities, and personal choices) and limited understanding, experience, and role models for paid work practices (and associated learnt responsibilities and lifestyle disciplines). Further investigations into the motivators and drivers of young adults (both male and female) to engage in work in general—and fisheries enterprises in

particular, are critical to further improve work engagement models and strategies on Goulburn Island.

8. Business Development—Capacity Building—The Community

The 2012 study into women's aquaculture development preferences reported that all project participants (both male and female) were very keen to see locals run their own businesses and, especially the older generation, saw this a very important criterion for future development (Fleming et al., 2014). When the aquaculture program began on Goulburn Island in 2010 there was no governance body and consequently residents relied on the regional shire council to manage all town services and community programs. Residents felt frustrated with the lack of control over their own affairs and lack of focus on community development programs, especially for economic development. To address this issue, residents put plans in place to set up their own corporation.

As discussed in section 1, when the enterprise development officer (employed by West Arnhem Shire Council) began work on Goulburn Island in 2011, he assisted the community in establishing its own not-for-profit community governance organisation (Yagbani Aboriginal Corporation) run by a board comprising representation from each of the five main clan groups. In 2012, board members undertook preliminary governance training provided by the Office for the Registrar of Indigenous Corporations, but required extensive ongoing training in governance and business management. The 2012 study into women's aspirations for aquaculture enterprises also reported that all participants (male and female) placed a lot of faith and confidence in the newly established community board to make decisions and manage future businesses. Despite people's desire for community independence, they acknowledged the need, at least for the foreseeable future, for sustained external support at most levels of enterprise function, such as management and financial capacities, technical training, mentoring, funding, and resourcing (Fleming et al., 2014).

It was clear to all facilitators that developing the capacity of Yagbani's members for governance and business management was critical to ensuring planned aquaculture ventures were viable into the future. It was also clear that, in the interim, a manager sourced from outside the community was required to assist Yagbani to continue its community development work. In 2013, the enterprise development officer secured funds from the investment arm of the Northern Land Council to continue his work supporting Yagbani and was formally elected as manager by the Yagbani board in late 2013. In 2014, the Aquaculture Unit secured funds to employ a business consultant (who specialised in Indigenous-appropriate training methods) to provide the Yagbani board with further governance training and business management training (as well as produce a business plan and other documents required to progress aquaculture business development initiatives—see sections 1 and 2). A critical next stage of program implementation on Goulburn Island is to adequately resource this essential work—and over a sustained period—to develop local capacity for business planning and management.

The impost on facilitators to constantly secure financial and human resources for Indigenous business capacity development is significant. Not only are the timeframes set by many funding providers inappropriate given the task at hand, but also sourcing sufficient funds for key programs is often very difficult. Given the long timeframes required to achieve viable businesses on remote Indigenous communities—likely 5 to 10 years—a more strategic approach is needed, such as regional strategies (10 to 20 year plan) for Indigenous business development that provides business education, training and mentoring, as well as business advice, industry specific training, and industry mentoring programs (see also section 2).

9. Business Development—Infrastructure, Financial Resources, and Land Tenure

Early market analysis done by the Aquaculture Unit highlighted the potential barrier to investment caused by unsecured land tenure and lack of adequate capital for supply chain infrastructure. Also, timeframes for delivery of these assets is critical as protracted delays can stall development momentum and compromise investment interest (Fleming et al., 2014).

During 2013 to 2014, the Yagbani Aboriginal Corporation secured a number of town leases from the local council so that the corporation had access to suitable land and facilities for their suite of development objectives, including a site suitable for a seafood processing facility. In recent years, the federal government has introduced land tenure reforms to encourage Indigenous people to enter into 99–year leases over Indigenous owned lands (which under the *Aboriginal Land Rights [Northern Territory] Act* (1976) can be leased but cannot be sold or individually owned). These reforms are said to provide options to leverage greater investment opportunities in Indigenous communities (Scullion, 2014). From late 2013 onwards, the Yagbani manager also secured funds for administrative and management support for Yagbani and staff positions to support a range of development initiatives.

In late 2013, the Yagbani Aboriginal Corporation sought funds (supported by the CDU and Aquaculture Unit partners) from the Aboriginal Benefits Account (which invests mining royalties into businesses to benefit Indigenous Australians) to build a seafood facility on Goulburn Island for first stage sea cucumber processing (gut, boil, and freeze), as well as for shellfish and wild-caught fish. The funding bid was unsuccessful but a further submission is planned. This new submission will be strengthened by a business plan for sea cucumber ranching and a formal business agreement between the Yagbani board and the commercial partner (see also section 1 and 2).

The next 5 to 10 years are critical to the future of the aquaculture program on Goulburn Island and will depend on future actions of all stakeholders to build community capacity and secure sufficient financial resources (for staffing, operational, and infrastructure provision) over this extended period. The realistic timeframes required to support business development in remote communities pose a significant challenge to facilitators, given most funding cycles fall far short of this. Longer-term funding commitments are required that recognise both the importance and challenge of building local community capacity for business planning, management, and operations.

As the fisheries businesses transition into the early business start-up phase, investors and funders must be convinced of the community's legitimacy in managing businesses before they commit significant financial investments. Such legitimacy will come from sound business plans, supported by a demonstrated commitment by the community to development activities and a track record by the governance body in maintaining efficient and accountable financial, administrative, and management systems.

10. Market Drivers—Impact of Government Policy

Impact of government policy is included within the list of success factors as government economic Indigenous development policy has significant potential to facilitate and support business partnerships between the commercial sector and remote communities, if designed and implemented well. To do this well, governments must provide strategic and effective programs that equip Indigenous people with the necessary business capabilities to independently engage and negotiate

with the business sector. Governments must also provide an enabling regulatory environment to attract investment in Indigenous estates (see also section 9).

Impact of government policy is also included within the list of success factors to highlight the significant negative impacts it can have on program implementation. Unlike the other success factors, this factor is outside the control of the community and program implementers. This constant threat to program viability requires resilience by all participants to sustain effort and create innovative solutions to maintain program momentum. Impacts to program viability can occur in various ways. The most significant during the 4 years of the aquaculture program on Goulburn Island were from the constant, and poorly implemented, changes by the federal government to their remote Indigenous employment programs and associated employment funding strategies. In late 2013, the government phased out the last of the CDEP program and the Indigenous aquaculture team was left unemployed and without an income. Tensions and mistrust by community members arose over the following months as aquaculture research staff sought to engage the local support team but locals saw this as unpaid labour. Funds were eventually sourced by the Aquaculture Unit to provide hourly wages. In the meantime, aquaculture research staff worked on the trials without community input. In mid-2014, the new form of Indigenous employment program, the Remote Jobs and Community Program (RJCP), was implemented. The manager of Yagbani has negotiated for this employment program (and associated employment work plans) to be managed by the Yagbani board.

These constant changes to government policies and programs, and slow, inefficient, and often confusing transitions from one program to the other, severely impacted the progress of the aquaculture development program and threatened to erode relationships that had taken time and resources to build. The community's ability to fully attend to, and participate in, development programs is constantly compromised as their time and energy is focused on attending to daily crises and demands brought on by government actions. At these times the influence of key drivers to sustain programs is critical. Indigenous people's enduring drive to create a better future for the next generation and the commercial sectors' drive to generate new market opportunities both must sustain effort, despite the impact of poor government policy.

Discussion

Effectiveness of the Business Support Framework in Guiding Development on Goulburn Island

Use of the business support framework proved highly effective in enabling the commercial sector to invest with greater surety in Indigenous businesses on Goulburn Island. The framework was used to ensure that equal importance was placed on delivering both corporate and cultural economic goals, needs, and processes. Most importantly, it clarified the need for both Indigenous and business parties to directly negotiate development pathways that accommodated the different ways that business and culture engage in and do business, their disparate goals regarding desired flow of benefits from employment programs, and their differing drivers for market engagement. In practice, this was achieved by the government sector forming collaborative partnerships with both the commercial sector and the social sector to inform, facilitate, and support engagement between potential business partners and the community.

Viewed through the framework, the two key systems for driving economic development in remote communities—business and culture—proved responsive to market opportunity and so were effectively engaged in the business development process on Goulburn Island. The fisheries sector

sought to generate business profits through increased access to seafood product. Similarly, Indigenous people sought self-determination through Indigenous-run businesses utilising their natural marine resources. Interestingly, drivers for Indigenous business development occurred at two levels: at the community level (to provide operational and business support for fisheries enterprises) and at the clan level (to work in sea-based fishing and aquaculture operations within traditional land and sea ownership structures). Such arrangements accommodate both cultural aspirations for flow of benefit based on ownership of lands and seas, in addition to community aspirations for employment and social benefits. As the framework outlines, Indigenous people's strong motivation for self-determination and control is a powerful force that can drive remote economic development, if people can be equipped with the business skills to realise their vision. This is where concerted effort must now be focused within the development program on Goulburn Island.

Achievements of the Aquaculture Program to Date

Although this program is only part way to achieving economic outcomes for the Warruwi community, significant progress was achieved within the first 4 years. At the time of writing, the aquaculture program is transitioning from an R & D phase to a business planning and enterprise start up phase. All aquaculture and fisheries enterprises trialed in the program proved biologically and economically viable. As part of the diversified business portfolio proposed by Yagbani, fully operational enterprises will collectively generate sufficient profits to support local wages. A number of male and female community members are now employed under the new Indigenous employment program (managed by Yagbani) to conduct aquaculture and fisheries work, and as coordinators for the various enterprises. In early 2015 Yagbani and the sea cucumber industry partner conducted their first joint harvest of wild stocks and the company provided training in product processing on board a commercial vessel. The local aquaculture team will soon take responsibility for independently setting up and managing a small-scale oyster farm and the Warruwi women have begun harvesting seafood and will soon be employed by Yagbani to sell product into local markets. The various aquaculture and fisheries enterprises under development on Goulburn Island have delivered significant outcomes in terms of capacity development, strategic business planning, engagement and employment of young adults (both male and female) in culturally and economically viable activities, and renewed community optimism for the future in terms of culturally-aligned employment and business prospects on Goulburn Island.

Use of the Framework to Guide and Analyse Programs More Broadly

The framework proved to be an effective tool to guide Indigenous business development on Goulburn Island and may prove to be useful across all government agencies tasked to improve economic outcomes in remote Indigenous communities. It can be adjusted to suit different Indigenous groups, both within Australia and, potentially, internationally. It can be used to assess proposed development initiatives, and evaluate and troubleshoot existing programs. Current Indigenous employment programs and policies can be analysed retrospectively through the implementation framework to better explain their success. For instance, the Indigenous land management initiatives (Working on Country, Indigenous Rangers, Indigenous Protected Areas) successfully integrate cultural value systems and employment aspirations with Western market demand for the services they deliver. The employment arrangements these programs offer suit Indigenous capacities, draw on their cultural knowledge and strengths, enhance connections to country, and accommodate lifestyles centered on culture and family. Such employment programs bring together both the customary and the mainstream market into a mutually beneficial economic

arrangement, but rely on ongoing government support as they deliver "public good" services (Altman, 2005, 2007, 2012).

Indigenous culture-aligned economies that deliver high-value commercial products or services should, theoretically, not require ongoing government support once the business makes a positive return on investment. The Indigenous art industry matches Indigenous aspirations for culturally aligned, flexible work opportunities with a strong global market demand. The global demand for high-value Indigenous Australian art suggests that market and cultural drivers should be sufficient to sustain this industry. Viewing the Indigenous art sector through the framework suggests that, for some communities, limited capacity to craft innovative business models and targeted marketing strategies that fully harness potential global market drivers have hampered their ability to operate without government support. Similarly, the number of successful stand-alone Indigenous-run cultural tourism businesses is surprisingly low, given the very strong demand by international tourists for cultural tourism experiences in Australia (ACG, 2013). Again, the framework highlights the lack of business innovation to successfully craft new ways to expand the tourism product and its appeal for domestic and international tourists, particularly through product development and business strategies that target sophisticated eco-cultural branding and marketing (Whitford & Ruhanen, 2009).

The Northern Territory's Indigenous Pastoral Program demonstrates a highly effective collaborative partnership between Indigenous Land Councils and government. The program effectively engaged the Northern Territory cattle industry with Indigenous landowners to develop pastoral businesses on Indigenous lands and provide employment opportunities for Indigenous youth as stockmen (Department of Primary Industries, Fisheries and Mines, 2005). Viewed through the framework, this program has addressed many of the success factors, although the challenge in the coming years is to improve capacity for Indigenous landowners to take a lead role in managing a greater proportion of those pastoral businesses set up on their lands. Viewing mainstream industries through the framework also offers a greater understanding of their continual failure to engage Indigenous people living remotely. Industries such as mining, agriculture, construction, retail, and transport offer no cultural connection nor accommodate flexible employment arrangements around a lifestyle centered on culture; that is, they fail to recognise the critical role the Indigenous cultural system plays as a market driver. Interestingly, Indigenous people in Canada living on their traditional lands have devised new development pathways in partnership with mainstream industries where they have negotiated entirely new organisational arrangements to ensure wealth is generated to fund social objectives (Anderson et al., 2006). In Australia, where mainstream industries (mainly in the mining sector) have been set up on Indigenous owned lands, there has been very little economic benefit for the neighbouring Indigenous communities despite many hundreds of millions of dollars in royalties being paid. Rather than well-advised investment in infrastructure and capacity development, private sector investment has generally resulted in an exchange from government welfare to corporate welfare (Ord & Mazzarol, 2007). This highlights the critical need to assist Indigenous communities in building leadership and governance structures to ensure economic development is driven by Indigenous leaders and organisations that are empowered to negotiate and manage beneficial agreements in accord with local and regional Indigenous aspirations. The successful business partnerships achieved between Indigenous peoples in Canada and the business sector show that such effectively negotiated business arrangements (supported by enabling government policy and empowered community leaders) can result in profitable mainstream industries delivering culture-aligned economic development objectives for Indigenous communities.

Use of the Framework to Identify Limitations of Key Internal (Community) Support Systems

The use of the framework highlighted the limitation of some key internal systems on Goulburn Island that will require sustained additional effort and resources to address. Limited local capacity for community leadership, governance, and business planning and management is likely to limit, for some time to come, the Warruwi community's ability to independently operate community-based businesses. The capacity of Indigenous Australian people to engage in entrepreneurship generally is very low (6% for males, 4% for females) compared to similar Indigenous people globally (Wood & Davidson, 2011). Frederick and Foley (2006) contend that Australian Indigenous disadvantage is so entrenched and pervasive that entrepreneurial activity will remain the exception, rather than the norm, for some time to come. For example, many of the 5,000 Indigenous Aboriginal corporations registered across northern Australia have very limited capacity to independently operate and manage their own community-based businesses (Michelmore, 2013). A significant body of policy research has been published in Australia on contemporary Indigenous governance and how best to facilitate pragmatic but effective, legitimate governance arrangements and capabilities within Indigenous communities (Hunt, Smith, Garling, & Sanders, 2008). As a result, there are many competent Australian Indigenous organisations that have secured community legitimacy by successfully balancing their cultural imperative and practice with the demands of legal incorporation and government funding regimes.

The Need for a More Strategic Approach to Indigenous Business Capacity Development

In contrast to the concerted efforts to improve Indigenous governance systems, there is a general lack of formalised and strategic programs to develop remote-living Indigenous people's capacity for small business entrepreneurship. Reporting on the low entrepreneurial activity by Indigenous Australians within the broader context of the annual Global Entrepreneurship Monitor project, Hindle and Rushworth (2002) recommended that national, diversified Indigenous entrepreneurship education, training, and mentoring programs are a priority. The Canadian Government has established such a program with numerous regional service centres (in partnership with program delivery providers and Aboriginal financial institutions) to provide a range of services and investment capital for Indigenous peoples in Canada living remotely (Government of Canada, 2014). For remote-living Indigenous Australians a similar regional business development program is needed, delivered locally in communities and offering a range of services, such as business planning, business support, business-related training, financial services, and mentoring services. Provision of such a program in Australia needs to be delivered within a formalised, and targeted structure, informed by community strategic development plans (or preferably regional ones), drawing expertise from the tertiary sector on Indigenous education and training and providing linkage with relevant industry and small business sectors. This could be supported by a mentoring scheme with support networks offering greater involvement by the private sector in Indigenous organisations (Ord & Mazzarol, 2012). The program would require surety of funding over a decadal timeframe and include similarly structured and targeted programs to build the capacity of workers.

The Need for Pragmatic Indigenous Business Support Models in the Interim

Until Indigenous people's capacity for entrepreneurship is increased, viable alternative models for local business management must be adopted. Some communities may choose to employ (mostly) non-Indigenous business managers directed by an Indigenous-run corporation, or they may

negotiate joint venture arrangements where corporate partners take responsibility for business management and provide employment and/or financial returns to the local Indigenous people to invest in their community programs. These are viable, pragmatic models that must, for the present, be used to engage remote-living Indigenous people in equitable partnerships with the market sector. If the terms of engagement are negotiated with equal power on both sides, such models can meet both cultural drivers for self-determination and corporate drivers for profit. If they are implemented and managed well, Indigenous Australians can design their own economic futures—within the framework of their own political, economic, and social systems—to innovate new ways of engaging with the commercial sector.

Conclusion

The business development framework identified key systems for driving economic development in remote Indigenous communities, and the key success factors necessary for viable businesses. This in turn identified the partnerships and processes that were required to ensure key systems were engaged and key success factors were addressed during each of the pre-commercialisation phases of business development. Use of the framework during program implementation allowed continual analysis of program progress and highlighted problem areas where further or alternative actions were needed. It also identified critical barriers to achieving fully independent Indigenous entrepreneurship in the longer term, highlighting where targeted, long-term Indigenous business support programs are needed.

The use of the business development framework will ensure governments can more effectively support Indigenous economic development and employment programs to an investment ready stage where the commercial sector can engage with more confidence in economically viable, culture-aligned businesses. This study showed that pragmatic, place-based approaches are the most likely development model to succeed in remote Indigenous communities, but only if *all* key success factors are addressed and *all* key drivers are engaged.

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