

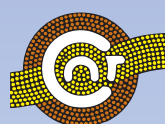
DESERT KNOWLEDGE CRC

The Transformation of Assets for Sustainable Livelihoods in a Remote Aboriginal Settlement

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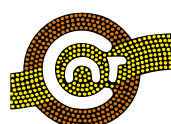
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Executive summary

This report presents the findings of an action research project at the remote Aboriginal settlement of Engawala, central Australia (approximate population 135 people). The project was conducted over an 18-month period using a variety of participatory methods. The purpose was to understand resources flows in Engawala and the extent to which these resource flows influence the long-term viability of remote desert settlements. The theoretical basis to the analysis was the Sustainable Livelihoods (SL) Framework, which is a model of practice developed in international development settings. It has increasingly been adapted to Aboriginal settings in remote Australia. Rather than starting with externally derived interventions, the model draws practitioners to consider the range of settlement-based assets that settlements can draw on towards achieving livelihood outcomes. The model holds that even the most disadvantaged people have assets, and that these resources should be seen as the basis of recovery or development.

The study found merit in an asset-based approach, but otherwise found the SL Framework was limited to the specific contexts found in developing countries. In applying the SL Framework to Engawala, considerable modifications to the Framework were necessary. It was immediately apparent that the types of vulnerabilities experienced in villages in developing countries, as encapsulated by the SL Framework, had little relevance to Engawala (e.g. war, crop failure, commodity price fluctuations, etc). Rather, vulnerability was inseparably intertwined with government-backed funding and services. The basic needs of people in Engawala (housing, water supply, food, income, etc.) were met by the Australian state.

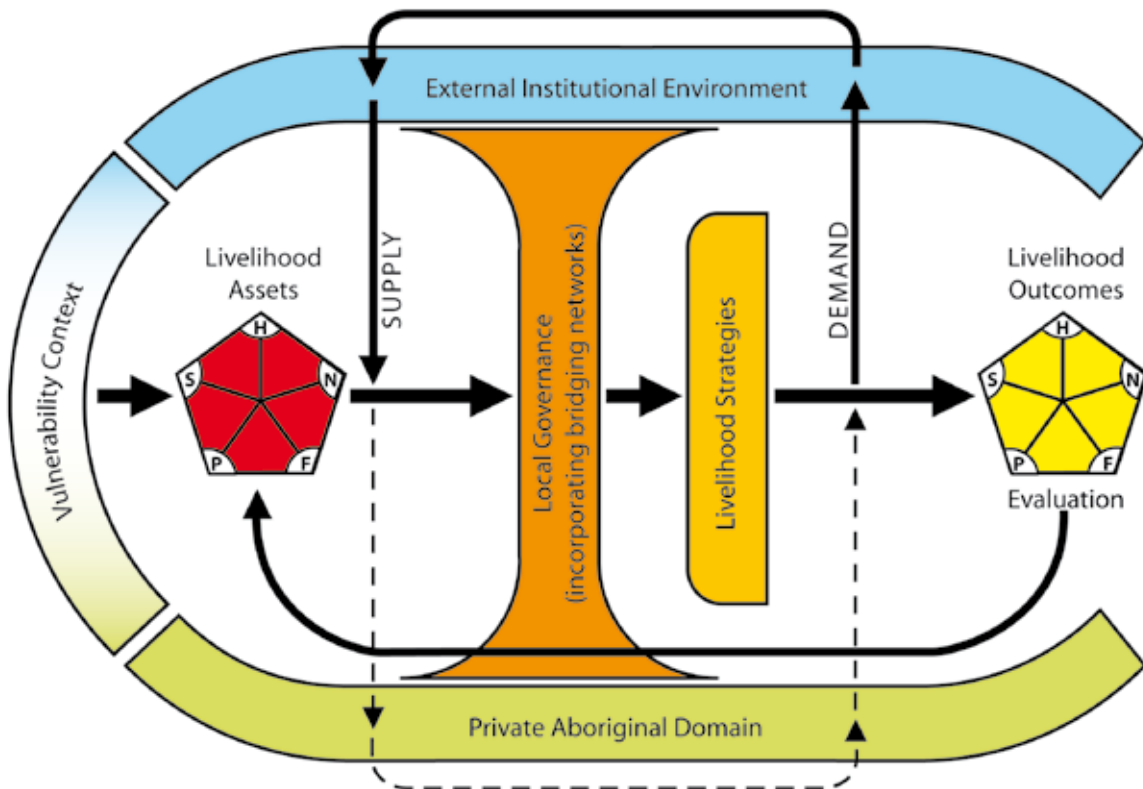
Engawala settlement is a unique economic context. It sits within an Aboriginal-owned pastoral property of marginal profitability; there were very few other economic opportunities in a financial sense. Government allocations dominate income through project grants and welfare payments, about half of which circulate through the store. Almost all employment positions in the settlement (and its related regional centre) are held by outsiders. With almost 100% local unemployment, little of the external funding flows to household incomes. A high turnover of CDEP welfare payments occurs on a weekly basis, primarily for the purchase of food and other basic necessities, including repayment of loans to kin. There is little internal financial capital or savings to leverage economic development. Whereas mainstream settlements (and to a lesser extent international development settings in third world countries) are underpinned by a market economy, Engawala is characterised by the very lack of one.

The political economy of Engawala is dominated by a complex set of external agencies, particularly government agencies but including non-government organisations (NGOs), media outlets, and regional Aboriginal organisations, and processes associated with the economy and national standards of equity and best practice. In an Australian context, this *external institutional environment* is almost entirely supply-driven. New conceptualisations of the 'problem' by government result in new programs. New initiatives to devolve more 'self-governance' result in more external requirements for accountability. The rate of launching new programs exceeds the closure of old, resulting in an annual increase in the complexity of the system, and the quantity of administration to be processed. Despite its pervasive characteristics, the external institutional environment did not totalise or immobilise practice in Engawala, and there was still considerable room in the system for leaders to manoeuvre. Its effect on Engawala can be described through a

simple abstraction to the ‘weather’. People may have little control over its effects, but they have learnt to ‘make hay while the sun shines’ and to ‘bunker down’ when storms appeared on the horizon.

To adapt the SL Framework to Australian settings, it was necessary to address the rising debate on the relative importance of culture in the face of modernity and cultural change in Aboriginal societies. Depending on the normative positions of different proponents in this debate, culture can be understood as a liability that has to change, or as a unique asset to be protected and preserved. Rather than taking sides in this debate, the research team found that culture underpinned and transcended the entire Framework; it was as much as what people are, as what they do. Culture was thus best treated as a contextual element, as a critical part of a complex set of constraints and opportunities, and beyond immediate manipulation by the practitioners or individuals using the SL Framework. It was decided to consider culture as embedded within a *private Aboriginal domain*, and thus inherently a private and internal matter. This also proved to be useful as a means to promote respect among outside practitioners of the SL Framework, to show that ‘beneficiaries’ are travelling from a private place to participate in the process.

The modified SL Framework to emerge from this analysis is shown diagrammatically below, with a brief description of each of its eight main elements:



1. **Vulnerability context:** This element covers all negative impacts and worries that a settlement/household may have, including threats and shocks.
2. **External institutional environment:** This element of the framework reflects the decisions made outside the settlement which impact on the settlement and/or households or individuals.
3. **Private Aboriginal domain:** This element acknowledges the powerful role of culture (present in all the elements), privacy and Aboriginality in the sustainability of livelihoods for individuals, households and communities. It is not a space, or domain, which can necessarily be ‘understood’ or indeed manipulated by any one party, but it is the arena from which the people come to work with the other elements.
4. **Livelihood asset pentagon:** This pentagon is the starting point for the framework when working with communities. Participants use the pentagon to describe all five different types of assets owned by a settlement or a household: social, financial, natural, physical and human. The pentagon provides a graphical representation of how the strength of these assets relate to each.
5. **Livelihood strategies:** Livelihood strategies are the activities (such as projects, trading, employment and training) that people do to build on or transfer their assets base. They involve the management of transformations (trade-offs, draw-downs and substitutions) of the different livelihood assets.
6. **Livelihood outcomes/evaluation pentagon:** This second pentagon reflects on settlement achievements with livelihood strategies and provides a point for evaluation and feedback within the process.
7. **Local governance (incorporating bridging networks):** The local governance element refers to formal and informal decision-making practices and protocols at the local or regional level, and is largely based on relationships that form among residents, leaders, settlement staff and outside employees. This element refers to how the settlement organises to prioritise and work on livelihood strategies. It provides a bridge between the external institutional environment and the private Aboriginal domain.
8. **Supply and demand arrows:** These arrows directly relate to the institutional environment. The ‘supply’ arrows represent how external policies and programs influence remote communities. However, communities are in better position to influence the external institutional environment when the service system responds to demands from the residents, as represented by the ‘demand’ arrow.

The different elements can be considered in two different categories: context and instrumental action. *Vulnerability context*, *external institutional environment* and *private Aboriginal domain* set the context through which sustainable livelihood strategies must be framed (the outside ‘C’ in the diagram). The remaining elements represent the line of action from transforming assets, through organising constructive effort, towards achieving sustainable livelihood outcomes.

In the asset pentagon, the five categories of assets (or capitals) are not simply resources that people accumulate for safety or prosperity, but rather the means of instrumental action. Their existence is not sufficient to achieve a livelihood outcome or overcome a perceived vulnerability; to be useful, assets must be accessible and transformable. In Engawala, the routine inflow of resources (e.g. money, housing, skilled workers, services) are largely inputs provided by the state. This underscores the importance of bridging network and local governance as a means to secure and maintain these inflows of resources. To understand this, it is important to emphasise two aspects: firstly,

government inputs almost completely determine the local economy; and secondly, their inflow is largely beyond local control. In terms of achieving sustainable livelihoods, it is the internal transformations of assets that are more important, because they are in the sphere of local power and capability for action. Rather than adopting a simplistic econometric inflow/outflow model to resources flows, the study focused on these internal asset transformations. This is an important message for policy makers and service providers, who are preoccupied with input/output models associated with the delivery of services and the measurement of their outcomes.

An example of this is found in physical assets, which are almost exclusively provided by external funding. Apart from some crowding in housing, the physical assets at Engawala provided a reasonable baseline of environmental health in comparison with mainstream standards, but this had not led to comparable standards of health. Physical assets in Engawala had no value in an economic sense, largely due to the communal ownership of land. On-the-job training and employment had been organised during construction, although the success of this has been limited. The asset transformation that had occurred was largely limited to the manipulation of fixed spaces, as occurred with the conversion of a spare room in the council office to a preschool, or the temporary boarding of families between houses during renovations. These types of transformations, however, were of a minor use in achieving a livelihood strategy.

If people are to use an asset towards improved livelihoods, it must be readily accessible and transformable. Financial capital in the sense of income and household savings at Engawala is very low. Physical assets (e.g. housing and infrastructure) are largely provided by the state, and communal ownership has ensured that these assets are not fungible¹ (the notable exception being second-hand vehicles). Human capital is low, both in terms of skills and the extent to which people are empowered to act independently. Opportunities for economic development and job creation are limited, as is motivation for training. Despite the availability of natural capital (bush foods, firewood), settlement title and logistical constraints largely limit their economic potential to subsistence. Of the five asset categories, social capital is the most significant in terms of its transferability in an economic sense, particularly in overcoming short-term vulnerability. By investing time and resources into family and kin, people effectively make deposits into social capital from which they can later draw.

There was a high level of community mobility during the study period, as is typical for most remote Aboriginal settlements. At one time, all but two people were absent for a large sporting carnival. At another time, the population of the settlement swelled for sorry business after the death of a senior elder. Some of this mobility is related to employment in Alice Springs, and income earned and remitted back to family members in Engawala is an important source of income for some families. To the extent that mobility builds and sustains social capital, it is a sound strategy economically. There are high costs associated with mobility, given distances between centres, fuel costs and poor road conditions, yet people prioritise travel over other livelihood options, pooling limited cash and displaying innovative bush mechanic techniques, including a network of wrecks for spare parts. Mobility is frustrating for service providers used to static populations, but people are exercising a discretionary socio-economic response to the limited economic options in their home settlements. Notably, their focus is on the source of livelihood which is most reliably under their own control.

The ‘viability’ debate was flourishing at the time of this study. In considering the concept, it is not possible to separate this unique political economy from the many interventions provided by the Australian state. There is a certain historical irony to external judgements of viability, since remote

¹ Freely exchangeable for or replaceable by another of like nature or kind in the satisfaction of an obligation.

Aboriginal settlements are largely products of the largesse of the state. The basic needs of the residents of remote Aboriginal settlements (housing, water, food, income, etc.) are met by various governments. This is most evident in the outstation movement in the Northern Territory during the 1990s, which occurred with considerable policy and financial support from the Australian Government. The viability of remote settlements has always been inseparably intertwined with government-backed funding and services. In an Australian context of Aboriginal affairs, it is therefore problematic to single out a settlement from this system and its history of government support, and to then assess its viability in isolation from this system.

Importantly, policy-makers need to review simplistic thresholds of viability: viability is not a simple on-off step function. There may be extreme cases of very small settlements with no asset base where it is impossible by any model to deliver services. However, such accounting would have to be carried out very carefully, for it might also demonstrate that many poorer pastoral stations are also non-viable. The fact is that people can choose to make almost any scale of settlement and remoteness work if they are prepared to adjust their aspirations and take on an appropriate model of service delivery (probably involving a great deal of self-reliance). Viability is therefore better conceived as a complex trade-off between the aspirations of a community for services and the costs of providing those services, and the form of this trade-off is different for communities that function in different ways.

It is important to stress that the modified SL Framework to emerge from the study is *not* a conceptual or theoretical model which explains or predicts asset flows or the dynamics of community life in remote Aboriginal settlements. An illustrative example of this is that there is no basis from which to measure the relative importance of the five assets of the asset pentagon. With the exception of financial capital, there are no neat units of analysis. The capitals are best measured subjectively by people with a deep understanding of the local situation, and so must be considered less simplistically than a simple aggregate. They are mainly a didactic device to ensure that there is a more balanced and integrated approach to practice. The Framework is thus a *participatory model of practice*, to draw both outsiders and locals onto an intercultural field on which knowledge sharing and innovation is possible.

If people living in remote settlements, and external actors who provide services and support, are to find a better model of practice, both sides need to find a more effective means of communication. Often, the language and the concepts used by researchers and service providers to describe remote settlements are quite different from those used by settlement people themselves, even if they are talking about the same subject. The modified SL Framework and the interpretative tools developed during this study can help create a common language and understanding to assist people to work and learn together. To achieve this in practice, the understanding of the different elements may need to be adjusted according to local situations. For the Framework to be effective, this common understanding is more important than the particular configuration of its structural and graphical elements.

Importantly, the Framework can facilitate a process that circumvents the problem of unrealistic ‘wish listing’ which has troubled participatory planning processes in the past. This problem arises from the unique economic conditions found on Aboriginal settlements, where in a context of market failure and a welfare economy, the opportunity costs of choices are not necessarily apparent. The SL Framework provides an opportunity to inform choices based on long-term sustainability, grounded to the existing base of assets and capabilities, rather than a political process of capturing government resources.

The study has concluded with two stated hypothesis for further research. The first is based on anecdotal evidence in which we suggest that the ‘viability debate’ has resulted in the increase in mobility. This hypothesis suggests that mobility may be an adaptive response to uncertainty in the policy environment. The second questions an apparent over-reliance on social capital, which, in a systemic economic sense, may actually be undermining the long-term sustainability of remote settlements. Irrespective of whether the latter is true, the lack of alternative transferable assets to social capital introduces a major vulnerability to the sustainability of remote settlements. If reliance on mobility and social capital is to reduce, then there clearly is scope to improve sustainability by strengthening the other capitals, through education, training, income creation and private enterprise. A set of recommendation have been provided accordingly. The challenges, however, are considerable: much of the history of interventions in Aboriginal Affairs has tackled these very things, with limited success.

It is possible to argue from the other side: the system must change. This is also hardly a new idea, and is one which has dominated the seemingly never-ending process of government reform. Solutions narrowly defined in either domain are unlikely to result in sustainable solutions, since the problems are essentially hybrid and intercultural in nature. Assets are accessible and transformable to the extent permitted by the spaces provided by the *external institutional environment* and *private Aboriginal domain*. In terms of local action then, it seems likely that the critical processes are those occurring within the sphere of local governance and bridging networks, on an intercultural field. It is the hybridised ‘third space’, between Aboriginal and non-Aboriginal domains, where new relationships, roles and cultural change can be worked through which have the potential to improve the system, and where actors have the space to manipulate and adapt to their advantage both the *external institutional environment* and the *private Aboriginal domain*. The modified SL Framework, as an intercultural model of practice, has the potential to help people ‘on the ground’ to work towards this end.

1 Introduction

1.1 Policy background

Serious questions have been raised by national politicians, government ministers and media commentators about the *viability* of remote Aboriginal settlements across desert Australia. This has spawned a conservative policy-oriented literature critiquing the viability of remote settlements (e.g. Hughes and Warin 2005), including the *Leaving remote communities* conference sponsored by the Bennelong Society in Sydney in September 2006.² This literature has suggested a range of policy responses, from investing the same amount of money but in different ways, through to withdrawing support for the very remote and small settlements altogether.

The residents of these settlements must now defend the ‘viability’ of their settlements, by arguing in the same terms as the people who have questioned their ‘viability’. This study attempts to create opportunities for remote communities to be involved in the debate. It has also sought to reduce the long-term vulnerability of these settlements to government policy and services, through identifying and strengthening existing assets, and by delivering strategies to achieve improved livelihood outcomes.

The term *viability* has considerable currency in the current policy environment, and is frequently deployed in political and economic rationalist discourse. It is politicised, since the term enables outsiders to judge the long-term ability of people to live in a certain place and in a certain way. It implies that decisions of whether people stay in or leave a place are based solely on economic considerations. The study argues that the viability of a settlement is not a simple step function dependent on the costs of maintaining that settlement’s services, but is a more complex trade-off between internal community aspirations and external institutional constraints, and that the form of this trade-off is different for communities that function in different ways. Neither side of the trade-off is simple.

Pleshet (2005, 1) defined viability as ‘a way of understanding the range of capacities a settlement has to transform resources into livelihoods, now and in the future.’ Fisher (2004, 1) defined viability as ‘the ability of a community to sustain itself over time, withstanding and adapting to gradual change or sudden shock.’ Both definitions attempt to equate *viability* with long-term *sustainability*. They also both draw from the language of the *Sustainable Livelihoods Framework* (SL Framework), which is a model of practice in international development, and increasingly, Aboriginal and Torres Strait Islander affairs in Australia. Under this Framework, Chambers and Conway (1992) defined *livelihoods* and *sustainability* as:

... a livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living: a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the long and short term.

The notion of *sustainability* has considerable currency across the developed world. It is most commonly defined as what ‘meets the needs of the present generation without compromising the ability of future generations to meet their own needs’ (Brundtland 1987). This definition is consistent with the world view of Aboriginal peoples around the world, perhaps best embodied in

² <http://www.bennelong.com.au/conferences/conference2006/conference2006.php>

the seventh generation philosophy of the Native American Iroquois Confederacy, whereby chiefs were charged with the responsibility of their actions on their descendants for seven generations. The 1995 World Summit on Social Development (UNDESA 1995) further defined sustainability as ‘the framework for our efforts to achieve a higher quality of life for all people’, in which ‘economic development, social development and environmental protection are interdependent and mutually reinforcing components’. The 2002 World Summit on Sustainable Development (UNDESA 2002) expanded this definition, identifying the ‘three overarching objectives of sustainable development’ to be (1) eradicating poverty, (2) protecting natural resources, and (3) changing unsustainable production and consumption patterns.

While questions of viability clearly set the policy and political context for the study, the term viability is generally avoided in the ensuing analysis, to ensure that its political associations do not distract from the analysis. The term sustainability is used as an alternative, which is consistent with a policy decision taken by the Executive Management Team of the Desert Knowledge Cooperative Research Centre (DKCRC). The following working definitions of viability and sustainability are given. Viability is measured at a point in time and covers the range of things that need to be in place to allow a settlement to function well at that time. Sustainability is the ability of communities to maintain the viability of a settlement over time, withstanding and adapting to gradual change or sudden shock. The ‘viability question’ will be revisited at the end of the report.

Using a range of documentary sources and field research, the study analysed the influence of community assets and resources flows on the ability of a settlement to sustain itself. In so doing, the study sought to answer the following four research questions:

1. What improvements to the Sustainable Livelihoods Framework are required for it to better represent the assets, resource flows and transformations underway in remote Aboriginal settlements?
2. What are the existing assets in remote Aboriginal settlements, which people can mobilise internally for change, and how should this asset base be categorised?
3. According to local perceptions, what are the past and predicted events which define the vulnerability context in remote Aboriginal settlements?
4. How can interventions in resource flows improve the viability of remote desert settlements, and where should these interventions be directed?

The study was undertaken by the Centre for Appropriate Technology (CAT), as a project of the DKCRC. The study will help frame a larger DKCRC research project, Sustainable desert settlements.

1.2 Theoretical and empirical background

The origins of the Sustainable Livelihoods (SL) Framework (and the notions of resource flows and viability that were developed from it) date back to the 1980s, with the development of a practical social research method, known as Participatory Rural Appraisal (PRA) by Robert Chambers (1983). PRA became widespread in international development practice, predominantly through its use by non-government organisations. The theoretical background of PRA can be traced back even further, as far back as the 1960s across the diverse fields of farming systems research, applied anthropology, agro-ecosystem analysis, and activist participatory research (for a summary of

this literature, see Chambers 1994, 953–958). The seminal work of Paulo Freire, *Pedagogy of the Oppressed* (1968) was particularly influential, with his study on the ‘conscientisation’ and participation of the poor in their own development. As a strategy to counter the dominance of external experts and aid agencies, PRA was a simple mechanism to involve beneficiaries in project identification, design, implementation and evaluation. It utilised a menu of participatory tools (e.g. mapping, transect walks, wealth ranking, seasonal calendars and matrix scoring) which were adapted to local situations (Chambers 1992, 7). PRA is still in widespread use in international development practice.

Chambers’ (1987) early work on livelihoods arose from this participatory foundation. Together with Conway, Chambers expanded the notion of livelihoods into the SL Framework from the early 1990s (Chambers and Conway 1992). The Framework rose in prominence from the late 1990s, when it was championed by the Department for International Development (DFID 1999–2001) in the United Kingdom. Since 2000, CAT has advocated and used the Framework in its work with remote Aboriginal settlements. The perceived value of using the framework is that it:

- provides a way of understanding and examining the complexities of communities
- engages people and communities in decision making processes around strategies where the central concern is improving their wellbeing
- increases the scope of an analysis to include areas which are too often under-valued, such as social capital
- provides a way of extending the analysis across different scales, from household to regional organisation and government (Fisher 2002).

The SL Framework is a mechanism to help communities identify:

1. the range of assets that members of a community draw on in building livelihoods
2. the ways in which people are able to access, defend and sustain these assets
3. the abilities of people to transform those assets into income, capacity, power and sustainability, or in other words to convert them into:
 - increased consumption levels that increases wellbeing outcomes
 - improved living conditions that imply an improved quality of life according to people’s own criteria
 - human and social capabilities to use and defend assets more effectively
 - an asset base that will continue to allow the same sorts of re-positioning, particularly during times of vulnerability or shock.

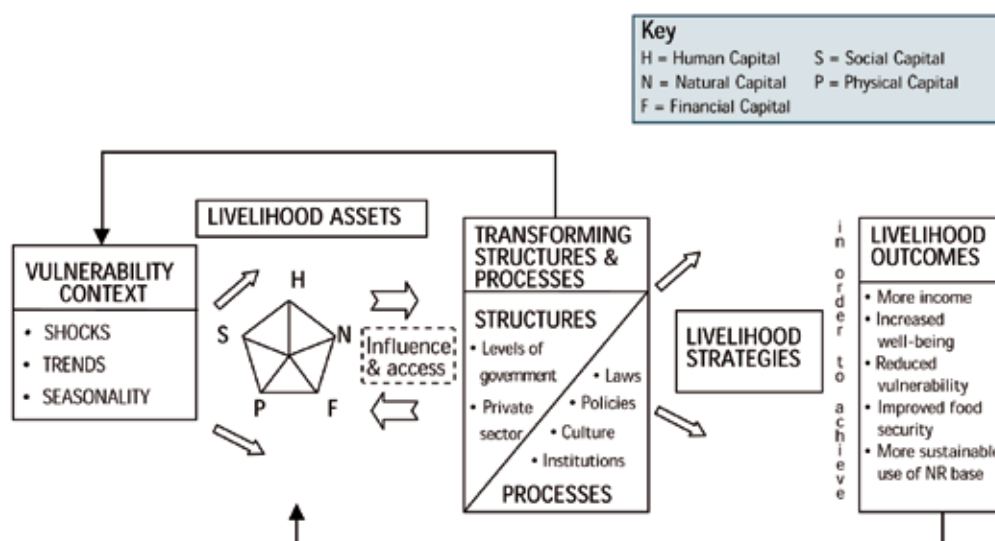


Figure 1: The DFID Sustainable Livelihoods Framework

Carney (1999) reviewed the application of the Framework by four leading aid agencies, finding varying interpretations of the model in practice. The livelihoods framework that is in use by CAT and the DKCRC is the DFID model (Figure 1). It is important to be clear on one thing from the outset: the DFID SL Framework is not the only livelihood model practiced in international development. In a more recent review of the ‘state of the art’, Carney (2002) analysed a number of different versions of the model, some of which are reproduced in Figures 2 and 3. She sensibly concluded that the SL is ‘a way of thinking and an approach to development, not a clear-cut recipe for how we should proceed in our poverty reduction efforts.’ If the DFID SL model is understood as a participatory model of practice, similar to PRA, then it should come as no surprise that different interpretations have arisen in practice.

While there is some literature on the application of the SL Framework to Australian Aboriginal settings (e.g. Fisher 2002), this literature is generally not based on field research. This is problematic, given the marked contextual differences between rural villages in developing countries and remote Aboriginal settlements in Australia, for four main reasons. First, remote Aboriginal settings are highly *commoditised*, whereby people receive income from waged employment or welfare payments, rather than relying on their own primary production. Second, these settlements are heavily reliant on a suite of services provided by mainstream Australia, most of which would not be available in rural areas of developing countries. Third, legislative provisions enshrine community title to land and assets, which prevents private ownership and inhibits a free market. Fourth, and in contradiction to the previous point, the level of community cohesion can be quite low in discrete Aboriginal settlements, due to the history of sedentarism and forced relocations.

In the DKCRC project proposal document, *resource flows* is defined as ‘movements of people, knowledge, money, consumables and assets to and from communities.’ Despite the centrality of *resource flows* to the enquiry and project title, its use in the international sustainable livelihoods literature is minimal, and with no consensus on the use of the term. When the term resource flows

appears, it is usually in the context of natural resources, or farming systems. The terminology only appears once in the original DFID guidelines, which was in the context of natural resource stocks. The notion of resource flows does appear in the international development literature on farming systems, in terms of farming inputs and outputs (e.g. Regmi 2000). However, these studies are not written in the context of the SL Framework.

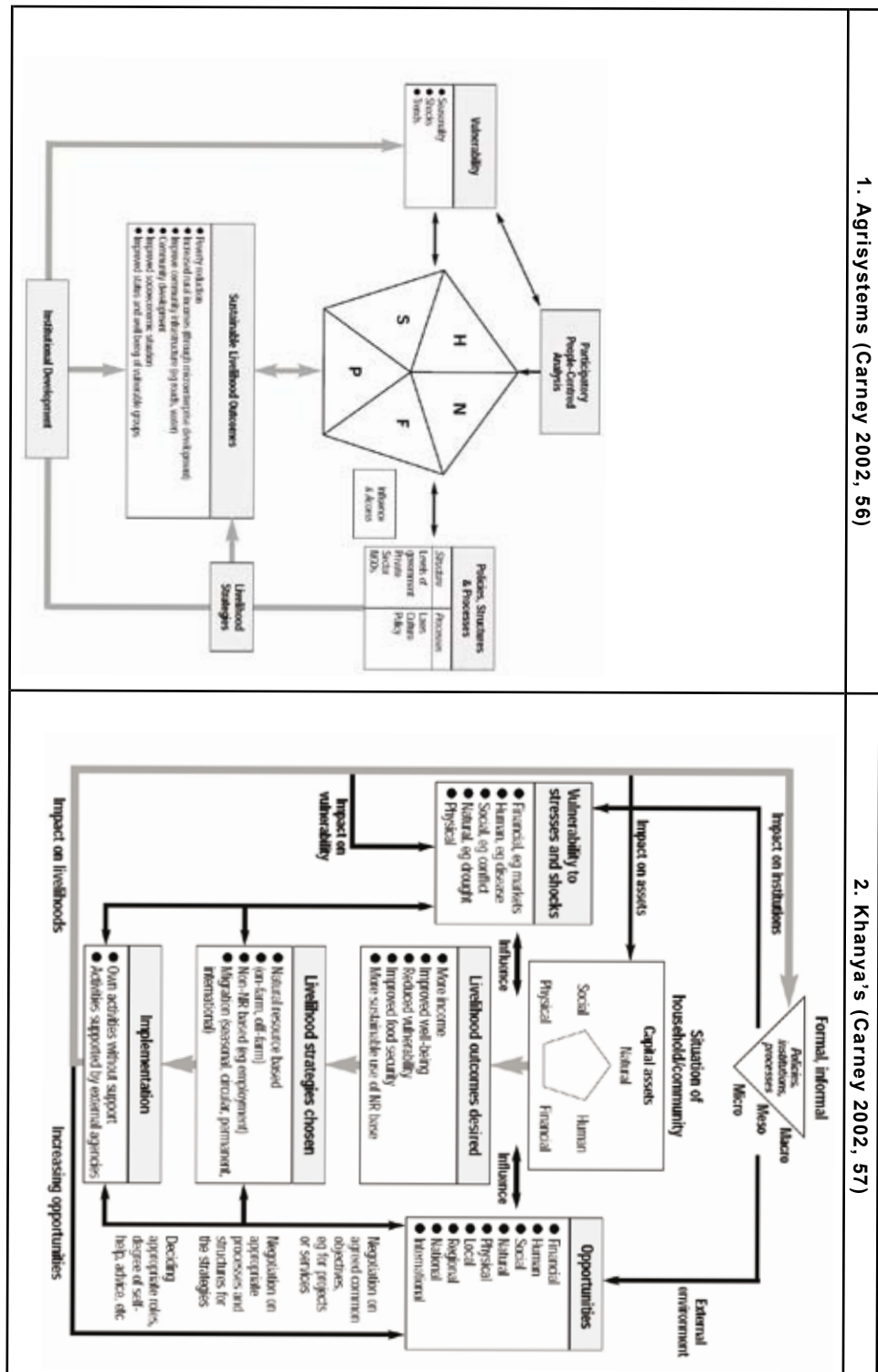


Figure 2: Alternative Sustainable Livelihood Frameworks (1 and 2 of 6)

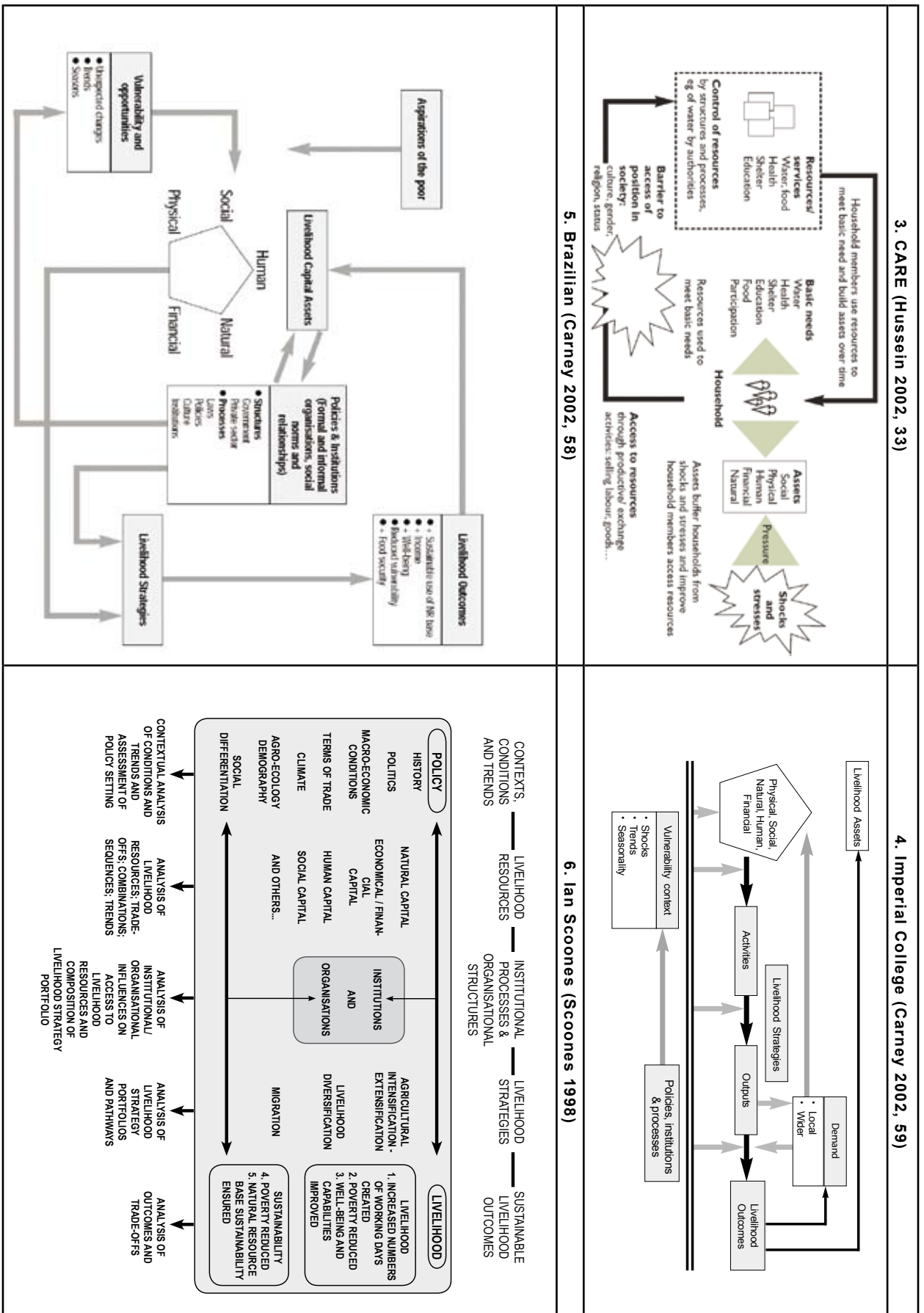


Figure 3: Alternative Sustainable Livelihood Frameworks (4–6 of 6)

The notion of resource flows is most established in the literature as an input/output systems model of the material flows through industrial economies. The World Resource Institute (Adriaanse et al. 1997) described the ‘materials cycle’ at a whole of society level, from extraction of natural resources, to industrial transformation into products and services, and then back to the environment largely as waste. As an alternative to gross domestic product, they proposed ‘total material requirement’ of an industrial economy, measured through the mass tonnage of resource flows. CSIRO applied this methodology to Australia, first on a national scale (Poldy and Foran 1999), and then regionally (Lennox and Turner 2004), in what became known as the Australian Stocks and Flows Framework. This quantitative method is essentially an input/output model of physical mass flows, applied at macro regional and national scales. It is difficult to consider this in the context of the SL Framework in remote Aboriginal settlements, since only some of the assets can be measured in terms of their mass (i.e. not human, social or financial).

In relation to the SL Framework, the terminology of ‘resource flows’ is largely limited to the DKCRC project proposal document and early documents written by the proposal’s principal author, Steve Fisher. The project proposal document states that the model was based ‘on techniques of econometrics, using micro-economic analysis in order to measure sensitivities in outputs to changes in inputs.’ Fisher (2004) argued that ‘if the resources flowing out of a community over time are greater than the inflow, then the assets of that community will deplete – a positive balance sheet for resource flows is therefore fundamental to viability.’ He also presented ‘seven factors in the viability of a remote community’: effective governance, expressed aspirations, reliable infrastructure, livelihood activity, assets/resource flows, access to services, and low vulnerability. Fisher did not present an empirical or theoretical basis to support his arguments, so for the purposes of this study they are considered as hypotheses for exploration and testing.

Accordingly, the research team identified two methodological problems early into the study: first, the absence of empirical evidence to support the application of the SL Framework to Australian Aboriginal and Torres Strait Islander settings; and second, a theoretical conflation of a material-cycle mass-balance input-output model over the SL Framework, in the absence of a broader theoretical account. In order to advance the study, it was necessary to first analyse the existing asset base in Engawala (Section 2), before understanding how these assets change with time due to inflows, outflows and internal transformations (Section 3.6). In the end, the study found that resource accumulation and depletion through processes of internal transformation were more important to sustainable livelihoods and settlement viability, than the input/output ‘resource flows’ model conceptualised at the start of the project. We will return to questions about viability in the conclusion to the report.

But first, a more thorough reading and review of the Sustainable Livelihoods literature is necessary. In addition to its participatory origins described above, the SL Framework draws on a literature of development economics, including the seminal work of Amartya Sen (1981). Sen (1999, 295) expounded the notion of capability in achieving *substantive freedoms*, making the important distinction between a raw *capacity* and an actual exercise of a *capability*. Sen thus emphasised the importance of connections and access to the market economy and the outside world. He describes *entitlements* as the means by which people command this access; for example, from legal rights, access to financial resources, or relationships with other groups and individuals (Meikle et al. 2001, 34). The community assets are conceptualised as a means to an end, towards freedom to move in the world, rather than in terms of long-term sustainability alone.

The SL Framework is also underpinned by a body of literature on the utility of assets to overcome vulnerability, otherwise known as the *asset vulnerability framework*. The concept of vulnerability differs from notions of poverty or disadvantage, since measures of poverty are generally fixed in time, and poverty is essentially a static concept (Moser 1998, 3). By contrast, vulnerability is more dynamic and captures processes as people move into and out of poverty. Although poor people are usually the most vulnerable, not all vulnerable people are poor, and visa versa. Analysis of vulnerability draws strongly on the oral history of past troubles and low points. Yet while such events tend to define local understandings, external knowledge is also needed to understand the vulnerability context: what has happened elsewhere, or of what has a reasonable chance of occurring in the future (e.g. climatic change, competing markets).

It is self-evident that vulnerability can be caused by disaster, conflict, disease, and food insecurity. In addition, the SL Framework has identified a range of situations and elements of security, including exposure to risks, hazards, shocks and stress, and difficulty in coping with contingencies (Longhurst 1994, 18). Two dimensions can be described for vulnerability; its *sensitivity* (the magnitude of a system's response to an external event), and its *resilience* (the ease and rapidity of a system's recovery from stress). Moser (1998, 3), defined vulnerability as:

... insecurity and sensitivity in the wellbeing of individuals, households and communities in the face of a changing environment, and implicit in this, their responsiveness and resilience to risks that they face during such negative changes.

Under the SL Framework, the notion of *vulnerability* suggests that a complex of influences is directly or indirectly responsible for many of the hardships faced by people in developing settlements. The inherent fragility and non-fungibility of the asset base limits their ability to cope with stresses, whether predictable or not. And even when trends move in the right direction, people are often unable to benefit because they lack local institutions working in their favour.

Another important aspect of the SL Framework is the attention it brings to people as independent consumers of resources, rather than the victims of disadvantage requiring external intervention. The model holds that people have assets at hand, and that these resources should be seen as the basis of recovery or development. The SL Framework involves not only identifying threats, but also the resilience or responsiveness in exploiting opportunities, and the ability to resist or recover from the negative effects of a changing environment. The means of recovery are the assets that people can mobilise and manage in the face of hardship. As noted by Moser (1998, 3), vulnerability is inextricably linked to assets: 'the more assets people have, the less vulnerable they are, and the greater the erosion of people's assets, the greater their insecurity.'

An extensive literature on vulnerability and assets reflect not only a rapidly developing debate, but also the divergent objectives of different researchers in the field. Swift (1989, 13) analysed vulnerability and security as a function of assets, which he classified as *investments* (human investments in education and health, and physical investments in housing, equipment and land); *stores* (food, money or valuables such as jewellery), and *claims on others for assistance* (including friendship, kinship, networks and patrons in the community, government and international community). He argued that assets create a buffer between production, exchange and consumption. Production and exchange activities create assets, and in case of need assets can be transformed into production inputs or directly into consumption.

Maxwell and Smith (1992, 16), in identifying the risks to food security, classified five sources of assets as productive capital, non-productive capital, human capital, income and claims. *Productive capital* was defined as land, machinery, tools, animals, farm buildings, trees, wells, etc.; *non-pro-*

ductive capital as jewellery, dwellings, granaries, some animals, cash, savings; *human capital* as labour power, education, health; income as crops, livestock, non-farm and non-agricultural activity; and claims as loans, gifts, social contracts and social security.

In application of the SL Framework to urban settings in four different developing countries, Moser (1998, 4) classified five different types of assets:

1. *labour* as the most important asset
2. *human capital*, in terms of health status (people's capacity to work), and skills and education
3. *productive assets*, the most important of which being housing
4. *household relations*, as a mechanism for pooling income and sharing consumption
5. *social capital* and reciprocity within communities and between households based on trust deriving from social ties.

These studies provide a rich conceptual basis on which to evaluate the SL Framework for remote Aboriginal settlements.³ While there are different interpretations as to the relative position, importance and feedback loops between different elements, five different elements or 'boxes' to the livelihoods framework are consistently applied:

1. vulnerability context,
2. livelihood assets (a.k.a. assets pentagon),
3. transforming structure and processes (a.k.a. policies, institutions and processes),
4. livelihood strategies, and
5. livelihood outcomes.

These are considered in detail through the following sections of the report.

1.3 Research setting

Engawala is a discrete Aboriginal settlement in central Australia, with a population of approximately 135 people. It is located on a small excision from Alcoota station, both of which are owned by the community. The excision is 2.36 km² and Alcoota station is approximately 8860 km². The Plenty Highway crosses the station from east to west, along the southern edge of the station (Figure 4). According to the Accessibility Remoteness Index of Australia, Engawala is located within the remotest area of Australia.⁴

Engawala is situated in a larger administrative region, as defined by the mobility of its residents. There is frequent mobility of people and service providers to and from Ti Tree, which is the administrative centre of the Anmatjere Community Government Council (CGC) area. Frequent two-way travel also occurs to and from Atitjere (Harts Range) to access health services, and to and from Alice Springs for shopping and to access other services not available locally. The drives to Alice Springs (south west) and to Ti Tree (north west) each take about two hours by vehicle, and about one hour to Atitjere. Otherwise, people travel over a wide area of central Australia, including parts of western Queensland, for cultural reasons and to visit family.

³ Rather than providing a definitive literature review here, other literature is reviewed through the course of the report.

⁴ The Accessibility/Remoteness Index of Australia (ARIA) was developed by the National Key Centre for Social Applications of GIS (GISCA) at the University of Adelaide. ARIA measures the remoteness of a location based on the physical road distance to the nearest Urban Centre.

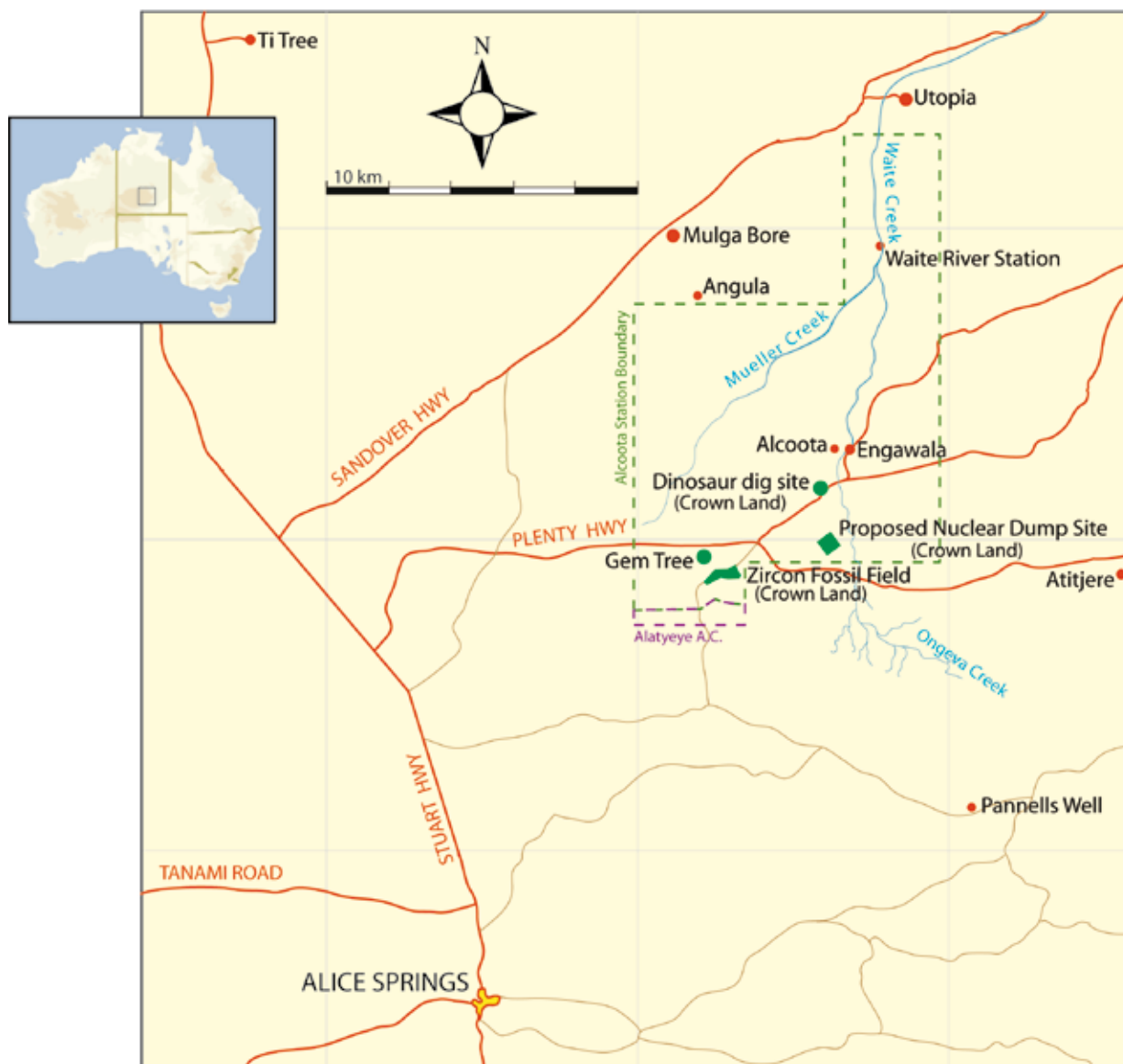


Figure 4: Locality map for Engawala settlement

The climate is typical of arid regions, with low erratic rainfall, long hot summers and short sunny winters with frosty mornings. The average rainfall is approximately 230 mm a year, but the rainfall patterning varies markedly between years. Drought is a feature of the history of this land, but heavy rainfalls, often associated with distant cyclonic activity, also occur and may result in sudden flood events. Temperatures in May become very hot (more than 40°C) in the summer months, and very cold (-10°C) in the winter.

The original inhabitants of the land surrounding Engawala are from the Eastern Arrernte language group. Through the 20th Century, these people endured a period of rapid change. Engawala settlement is located in an area of significance in pre-contact times because of the cluster of important sites of a significant dreaming track which runs along the nearby Ongeva and Waite Creeks. It is also the area where several traditional estates overlap, creating something of a neutral

ground. In addition, there are a large number of soakages along the creek beds providing a year round water source. It is likely that the present location of the excision is where Aboriginal station hands camped before the settlement was formally established.

The two main land-owning groups in Engawala can be classified as ‘owners’ (*ampereke artweye*) and ‘managers’ or ‘policemen’ (*kwertengwerle*). The majority of the settlement’s residents can trace their ancestry back to these two land owning groups. A third group has a role as ‘policemen of the 2nd order’ in terms of traditional ownership. Social relationships to this day are still very strongly governed by rules regarding skin groups.⁵ These Engawala families also have connections with Mulga Bore and Atitjere as well as with three Utopia homelands: Three Bores, Camel Camp and Tomahawk Bore.

In 1974, Finke River Mission helped to negotiate an excision from the Alcoota pastoral lease, founding the Engawala Settlement. Physical development at Engawala proceeded incrementally through the 1980s, including housing and the women’s centre. Alcoota Aboriginal Corporation was established in 1992 for the purposes of self-governance. A settlement orchard and the settlement store were built in 1994. The power station was constructed in 1996 and the CDEP program commenced at Engawala in 1997. Recent developments include a communal laundry and a reticulated sewerage scheme. The physical assets of the settlement will be described in detail in the following section.

Alcoota cattle station was originally settled by the European pastoralist, WC Turner. He began to occupy the station in 1920 and by 1935 he had built a homestead comprising two stone buildings (still standing today). In 1958, Alcoota station was transferred to PL Puckridge and CD Leahy, then to Puckridge solely. The station changed ownership several times. The Webb brothers bought Alcoota in 1971. On 18 March 1993, Alcoota Station was purchased by Engawala Community Incorporated for almost \$6 million. Tom Webb stayed on initially, until the current manager, Chris Knott, took over. The station today operates approximately 5000 head of cattle, and it employs a small number of Engawala residents for seasonal work.

Not long after the purchase, Central Land Council lodged a land claim over Alcoota station under the Northern Territory Land Rights Act. A number of Engawala leaders unsuccessfully opposed the land claim, since it broadened ownership to non-resident traditional owners. Pending a final report from the federal judge, ownership of Alcoota station will pass to a land trust of traditional owners (some living in Engawala, and others outside the settlement with traditional connections to country).

According to the 2001 Census (collection district data, 7031124, ABS 2001), 70 people were resident in Engawala, including three people of non-Aboriginal descent. The male:female ratio slightly favoured females (43:57). Close inspection of the census data at the collection district level revealed considerable irregularities, which largely are due to the small number of people in the collection district.⁶ The population profile is typical of that found in other central Australian settlements, with a high proportion of children and young adults, and a low number of elderly people (over 60 years old).

In the same year as the 2001 Census, the Community Housing and Infrastructure Survey (CHINS) (ABS 2002) estimated a usual resident population of 150 people. Environmental health officers from the Department of Health and Community Services (DHCS 2004) undertook a detailed

⁵ A widespread form of kinship organisation in central Australia is a system of sections, called ‘skins’ in Aboriginal English. In traditional culture, this system guides all social interaction, including marriage, sharing feasts, funeral organisation, initiations and religious ceremonies.

⁶ The Australian Bureau of Statistics (ABS) ‘randomises’ statistics in small collection districts to protect privacy.

housing survey in 2004. They recorded a population of 90 people, made up of 50 adults and 40 children (15 years and younger). In the course of the study, the population was estimated to be 135 people. This figure was reached by asking female elders the numbers of people usually resident in each house of the settlement. The figure was then checked against council and school records.

Similar to other remote Aboriginal settlements in desert Australia, Engawala is located in a unique socio-economic setting, arising from the small size and large distances between settlements, the high level of mobility between and within settlements, a lack of employment and other economic opportunities, and limited natural, human and institutional capital. This unique setting will be described in detail in the following section of the report.

1.4 Methods

The nature of the research was inherently ‘problem solving’, interdisciplinary and qualitative in nature. The research team sought to engage the community, to the point of shared understanding and interpretative insights, in the traditions of grounded theory and participatory action research. As described by Gilmore et al. (1986) action research:

... aims to contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. Thus, there is a dual commitment in action research to study a system and concurrently to collaborate with members of the system in changing it in what is together regarded as a desirable direction. Accomplishing this twin goal requires the active collaboration of researcher and client, and thus it stresses the importance of co-learning as a primary aspect of the research process.

Howitt et al. (1990, 2–3) argued that the research process should directly benefit the community of Aboriginal settlements, and be viewed as a dialectic learning process over time, such that social research is not divorced from social process. Advocates of action research take an emancipatory stance, ‘to help people to recover and release themselves from the constraints of irrational, unproductive, unjust and unsatisfying social structures that limit their self-development and self-determination’ (Kemmis and McTaggart 2003, 385). Coming from the perspective of international development, Harris (2002, 494) argued that ‘research priorities should be set by the practical problems that development involves, more than by the puzzles that are generated out of theoretical speculation’ alone.

Grounded theory begins with the reality of a situation, focusing on the roles of actors in that place in time. In this study Engawala was the situation, and the interactions under consideration were those occurring between residents and service providers in the governance of decision-making. It was clear from the outset that there was a functional decision-making system at Engawala. The research team sought to understand this system, and then adjust the SL Framework accordingly; that is, they set out to understand and build on the assets and capabilities that pre-existed the study. As noted by Bebbington (1999, 3), ‘one important reason projects fail is probably that they simply misconceive the way people get by and get things done.’ This is consistent with an established maxim among community development workers: ‘do no harm’.

Participatory action research involves cycles of data collection, analysis, feedback and reinterpretation. The research team spent considerable time presenting data and the emerging analysis back to the community, using a variety of interpretative tools. As also noted by Howitt et al. (1990, 5), feedback from these workshops generated new interpretative insights, which added to the next level of analysis.

Many of the Aboriginal residents of central Australia speak English as a second, third or even fourth language. Local interpreters were used on a number of occasions to help explain concepts or to phrase questions. In parallel, the research team used graphical tools (including photographs, maps, and diagrams) to collect information. One tool was specially developed and validated in the course of the study (see Section 4.2 for the livelihoods bicycle).

The SL Framework, as a model of practice, provided both the empirical basis to the study, as well the participatory means to engage with Engawala people. By following the SL Framework with people in the course of the analysis, the research team were able to meet the dual purposes of addressing the research questions, and pursuing issues of practical relevance to the Engawala people. This duality pervades the entire study. The three main areas of community benefit that were offered at the onset were:

- Resource flows assessment, involving community identification of existing resources and asset base
- Identification of community aspirations and prioritised options for achieving them through a community planning process
- Support in identifying avenues for implementing community-driven interventions.

The study was able to achieve all three of these outcomes, to the benefit of the community. In addition, the research team assisted with the delivery of several intermediate practical outcomes, including the installation of a settlement phone, repairs to the irrigation system at the settlement orchard, provision of bucket stoves, and finally, a skills audit.

Fieldwork was undertaken from August 2005 until October 2006. At times the research was interrupted because of changes in project team members, sorry business or other cultural business within the community, and changes in administrative staff within Engawala. During this period, an MOU was drafted and signed between Engawala settlement and CAT. The MOU formalised the research agreement and provided the basis for work through the project timeframe, and subsequently on community-identified priorities over the longer term.

Ethics approval was sought at the start of the project from the Central Australia Human Ethics and Research Committee (CAHREC). The ethics approval and discussions with key community leaders informed a process with the community that established a way of working from the onset. Methods were worked through with the community and revised throughout the project. Frequently, established practices were altered through community feedback and direction, and this provided a huge scope for learning about community engagement to the research team.

A checklist of data and their sources is given in Appendix A. Generally, data was obtained from the following sources:

- Secondary data sources: In a number of cases, the research team were able to access government databases or reports that provided specific information for Engawala. These sources of data often provided useful background information, but it was necessary to validate them against local experiences.
- Face-to-face interviews: The primary means of data collection was through face-to-face interviews, following semi-structured interview prompts. Often, these interviews were targeted at specific community elders or leaders or employees within the community. Information gathered was often validated later using small focus-group sessions. The interviews included all local leaders and locally employed residents of Engawala (including teachers, store keeper and the manager).

- Focus group sessions: Small group sessions (5–10 community members) were used to discuss a specific aspect of the data, to elicit understandings and perceptions, and to feed back analysis by the research team. During these sessions, community stories were used to look at decision making, relationships and activities within the community.
- Community meeting/planning events: Larger community meetings were also held, including providing feedback on emerging results, detailing community aspirations, testing out methods, and planning of future work.
- Interviews with community stakeholders: Key personnel outside Engawala, including those in government departments and working with Anmatjere CGC, were contacted to gain an insight into their involvement with Engawala.
- Observations: The research team benefited from developing long-term relationships with the community, which meant that researchers were in the background of many community events and interactions outside of the project scope. These observations helped the project team to understand the direct and indirect benefits and costs of policy/program and decisions made outside the community (e.g. the health clinic crisis).
- Feedback and sign-off: A pictorial summary of the report was prepared to facilitate feedback from the community.

Despite the attempts taken to involve Engawala people in the research, to present information to the community in accessible formats, and to deliver practical outcomes of immediate benefit, it would be misleading to suggest that the research was owned by the community. However participatory, grounded and action-oriented the research was, the project was clearly a one-off event, driven by the researchers and other external interests. There is no claim that the work is anything other than the work of the researchers.

1.5 Objectives and deliverables

According to the original project proposal, the purpose of the project was to determine to what extent interventions on resource flows can influence the viability of remote desert settlements, where these interventions should be focussed, and who should act to promote change in favour of improved viability.

The stated objectives were:

1. To analyse resource flows to, from and within a remote settlement, drawing out insights on type, volume and quality of these flows and how and why they vary when compared with other locations
2. To measure the relationship and the influence of these movements of resources on viability, engaging Aboriginal people in a process of community-based enquiry that generates a picture of how resources flow in settlements and households
3. To determine the likely changes in viability that result from a change in the quality and volume of individual flows of resources
4. To identify where policy and interventions such as economic, financial, and technical, or behavioural change within the community itself, are most likely to have a positive influence, ranking them to arrive at priorities for particular community circumstances
5. To make recommendations for achievable interventions that could be tested and validated in a second phase of research or through a new project
6. To foster discussion on the viability and sustainability of remote settlements, enabling the issues to be explored realistically by Aboriginal people, service providers, policy-makers and others with a stake in small remote settlements.

2 Engawala Livelihood Assets

At the heart of the SL Framework is the five-side pentagon of *livelihood assets*, divided into five categories: social, human, natural, financial and physical. A *livelihood asset* is defined as anything owned which can produce a future livelihood benefit, whether in possession or by right to claim possession. Each of these five types of assets will be considered in turn.



Figure 5: Engawala settlement

2.1 Natural capital

Natural capital is the ‘natural resource stocks from which resource flows and services useful for livelihoods are derived’ (DFID 1999–2001, 2.3.3). There is a wide variation in the resources that make up natural capital, from intangible public goods such as the atmosphere and biodiversity to divisible assets used directly for production (trees, land, etc.). In international development settings, the relationship between natural capital and the *vulnerability context* is particularly strong. Many of the shocks that devastate the livelihoods of the poor are themselves natural processes that destroy natural capital (e.g. fires that destroy forests, floods and earthquakes that destroy agricultural land) and seasonality is largely due to changes in the value or productivity of natural capital over the year. In Aboriginal settings in Australia, the link between livelihoods and primary production is not as strong, so natural capital is not as closely tied to vulnerability. It is nonetheless important in other ways.

Probably the most important natural asset to Engawala people is not situated in the economic realm, but rather in the psycho-sociological wellbeing and security that comes from their attachment to and use of ‘country’. Under the *Northern Territory Aboriginal Sacred Sites Act 2004*, there are 19 registered sacred sites and one recorded sacred site with the Alcoota station property.⁷ All sites hold significant cultural and social importance for the residents of Engawala, and for other non-residential traditional owners. As will be discussed later in section 3.4, culture underpins natural capital, as well as most of the other capitals.



Figure 6: Engawala environment and natural features⁸

The rich natural history of Engawala is evident in the Alcoota Fossil Field, one of the three known fossil sites in the Northern Territory. Although locals had known about the existence of fossils at Alcoota for a long time, it was not until 1962 that the first serious studies were conducted. Further excavations were conducted sporadically until 1984, when the Museum and Art Gallery of the Northern Territory commenced an annual excavation program. In 1988 a permanent field station was erected on site and the excavation area was fenced in order to protect the site. The Field is notable for the occurrence of well-preserved and rare vertebrate fossils, which provide evidence of the evolution of the Northern Territory’s fauna and climate. The Alcoota fossil is found in 8-million-year-old geological beds. Species found include one of the largest birds that ever lived, Stirton’s Thunderbird, as well as a number of giant megafauna birds, the wolf-sized Powerful

⁷ Aboriginal law limits detailed knowledge of sacred sites to particular people who are responsible for particular sites, and this knowledge is generally restricted. At Engawala, there are thus more sacred sites than those officially registered or recorded under legislation.

⁸ Clockwise from top right: (a) young witchetty grub, (b) digging for witchetty grubs, (c) mulga and gidgee woodlands are prominent on Alcoota property, (d) Alcoota cattle, (e) local ‘sugar bag’ honey in tree.

Thylacine, and the large leopard-sized Alcoota Marsupial Lion. Also found at Alcoota are fossils of herds of exotic wombat-like and trunked animals as well as other kangaroos, crocodiles, bandicoots, possums and small birds (Murray and Megirian 1992).

In more contemporary terms, Engawala and Alcoota station are situated within the Burt Plain bioregion of the Northern Territory. One of the distinguishing features of this bioregion is the predominance of earthy, alluvial soils as opposed to the sand plains and sand dunes characteristic of central Australia (Neave et al. 2006). The flora of Engawala and Alcoota station consists mainly of open woodland (dominated by eucalypts and acacias) and open grasslands. There is one site of significance in the Alcoota area that has unique floristic and geological characteristics, located approximately 5 km south west of Alcoota Homestead. An atypical form of *Acacia calcicola* occurs at the site.

The available data on the fauna is again descriptive of the broader Burt Plain bioregion. Many species have been lost from this bioregion over the last 150 years, and thirteen are currently listed as threatened or endangered under either Territory or federal legislation (Table 1). These species are threatened by a concert of factors including predation by introduced feral animals, changed fire regimes and wetlands, and impacts of grazing by livestock and consumption by people (Neave et al. 2006).

Table 1: Threatened or endangered species at Engawala

Taxa	Species (common name)	Threatened/ endangered
Reptiles	Great desert skink	Threatened
Birds	Emu	Threatened
	Painted snipe	Threatened
	Red goshawk	Threatened
	Bustard (bush turkey)	Threatened
Mammals	Southern marsupial mole	Threatened
	Mulgara	Threatened
	Bilby	Endangered
	Black footed rock-wallaby	Threatened
	Common brushtail possum	Threatened

Source: Neave et al 2006

The use of country by Engawala people has cultural, social, natural and economic importance. Bush tucker provides an important nutritional supplement, and hunting it provides exercise. Kangaroo, witchetty grubs, goannas and honey ants are all in plentiful supply. A range of flora is also collected for food or medicinal purposes, including bush tomatoes, yams and grevillea flowers. Access to bush tucker depends on seasonal availability, as well as more pragmatic factors such as availability of cars, guns, axes and digging sticks. The significance of bush tucker reaches beyond its health benefits: hunting is a social and cultural activity that connects people with their kin and country.

Firewood is an important resource for the everyday life of the families. Most cooking is done on open fire, and campfires are used for warmth in winter. Firewood from mulga and gidgee trees is collected year round as a CDEP activity with a dedicated vehicle. The manager of the cattle station leaves piles of wood for community use around the property, after land clearing and road building.

A range of other materials is available locally (Table 2), including sand that is drawn from the creek bed for construction and landscaping. A particular use of clean creek sand in the settlement is around houses, since it provides a functional surface for outdoor living. Humpies, shade structures and wind breaks are also self-built, using locally harvested grass, brush and bush timber.

Table 2: Locally available resources and their use

Resource	Use/Examples
River sand	Used in concrete making Used around houses for outdoor living Landscaping
Gidgee and mulga	Firewood: cooking, heating Self-built humpies, shade structures and wind breaks Digging sticks
Brush and local grasses (including spinifex)	Self-built humpies, shade structures and wind breaks
Local flora (other than above)	Bush banana, bush tomatoes, bush oranges, yams, grevillea flowers
Local fauna	Bush turkeys, witchetty grubs, honey ants, lizards, kangaroos, native bees
Livestock	Cattle 'killer' available on occasion from station

At present, Engawala people's engagement in cultivation or productive land use is limited to their ownership of Alcoota Pastoral Station. The management of Alcoota is contracted to a non-Aboriginal manager, and four men are regularly employed by the station (for details, see Section 2.4.3). Ownership of the station will soon be broadened beyond Engawala people, to include non-resident traditional owners.

Gem Tree roadhouse and a fossicking area for zircon are located within the area, as is the Alcoota Fossil Field described above. The area is also rich in cultural sites and traditional activity. Despite the obvious tourism potential of these natural resources, Engawala is not engaged in any tourist-based enterprises, other than indirectly through arts sales.

A settlement orchard was planted in 1994, consisting of citrus and native bush tucker plants. The orchard failed because of heat stress, termites and disrepair of the irrigation system. The orchard's land and water connections are still available for future use.

Given the semi-arid climate, water is a precious natural resource in short supply. The annual rainfall is approximately 230 mm a year, but is highly variable in amount and timing of arrival and not currently harvested. Drinking water is sourced from underground aquifers. Nearby Waite Creek runs maybe once a year, permitting occasional recreational swimming. There are also several dams (man-made catchments on creek lines) on Alcoota station for pastoral use, although these are generally too dirty for human recreational use.

While there is no current mining development, two companies (Flinders Diamonds and Tanami Gold NL) have realised the exploration prospects for diamonds, gold and vermiculite (used in industrial, construction and agricultural industries). Mining leases for exploration purposes have been issued in the past, but only one is still current. An Indigenous Land Use Agreement is also in place for exploration purposes. Drilling for gold exploration is proposed, but this is currently subject to negotiations with the Central Land Council and Traditional Owners.

It can be argued that the unpolluted air is a natural capital that many third world (and first world) settlements would envy. The geographical distance from the potentially damaging influences of towns is perhaps another natural capital that, used wisely, assists in the preservation of social and cultural values.

2.2 Social capital

Of the multitude of definitions available, social capital has been defined most simply as ‘the norms and networks that enable people to act collectively’ (Woolcock and Narayan 2000, 226). The SL Livelihoods framework describes three types of social assets that people can access in the pursuit of their livelihood strategies (DFID 1999–2001, 2.3.2).

1. Networks and connectedness, either vertical (patron/client) or horizontal (between individuals with shared interests) that increase people’s trust and ability to work together and expand their access to wider institutions, such as political or civic bodies
2. Memberships of more formalised groups, which often entails adherence to mutually agreed or commonly accepted rules, norms or sanctions
3. Relationships of trust reciprocity and exchanges that facilitate cooperation, reduce transaction costs and may provide the basis for informal safety nets.

These three different types of social assets cover a daunting scope. We will revisit the definition of social capital in Section 3.3, but for now all three have been considered together in keeping with the original DFID SL Framework. The following discussion has been organised around the five headings:

1. informal networks
2. local organisations
3. local government authority (Anmatjere Community Government Council)
4. local administration of government departments (the local school, clinic and police)
5. external networks (government service providers and regional Aboriginal organisations).

2.2.1 Informal networks

Informal networks at Engawala are situated within the Aboriginal domain, and are not immediately recognisable to outsiders. They include horizontal institutions built around culture, kinship, family and relationships. A detailed investigation of these informal networks would require a focused anthropological ethnography, which was beyond the scope of the current study.

It was possible to observe some of the decisions and outcomes arising from the processes these institutions applied, without necessarily understanding the social and cultural intricacies involved. Examples observed during the study period include reducing alcohol supply and consumption in the settlement, organising public transportation through the settlement-owned Toyota Troop Carrier (Troopie) to Atitjere (Harts Range) and Alice Springs, arrangements for inter-settlement sporting carnivals and funerals/sorry business, temporary accommodation for families displaced during housing renovations, the distribution of profits from Alcoota Station and the settlement store, and access to loans from the settlement members’ fund.

Decision-making in this realm occurred informally, face-to-face between community members, without public meetings or other formal gatherings. This was presumably helped by the small size of the settlement, which facilitated face-to-face encounters in the course of daily routines, especially the daily assembly for lunch at the women’s centre, and the routine visits to the settlement store during opening hours.

From an outside perspective the system seemed functional, but it was difficult to ascertain the details of the process, including on what basis decisions were made, whether there was any power or gender imbalance, and how decisions were communicated.

The horizontal networks of social capital extend well beyond Engawala to adjoining settlements in the region, and as far afield as Alice Springs and Mount Isa. These networks are frequently reinforced by mobility and communication. The limited telecommunication facilities (one pay phone and two settlement phones, see Section 2.5.7) are well used and Engawala people travel frequently to visit family and kin, and frequently receive visitors from other places.

2.2.2 Local organisations

Table 3 sets out the different organisations in Engawala, with details of their type, history, roles and responsibilities.

Table 3: Engawala local organisations

Organisation name	Type and history	Roles and responsibilities
Engawala Community Incorporated	Incorporated under the Northern Territory Associations Act in 1974.	<p>The corporation has an AGM once a year. In the past, Engawala Community Inc was responsible for the administration of the CDEP scheme which now resides with Anmatjere CGC. The organisation maintains an important local role in administering small grants with less formal reporting requirements.</p> <p>The powers that remain with Engawala Community Inc include:</p> <ul style="list-style-type: none"> • Local planning and setting priorities for community development and projects • Assessing local needs and informing Anmatjere CGC • Allocation of settlement housing • Setting local restrictions and policies, including the management of settlement assets • Siting and approving of local buildings (Burdon Torzillo 2006, 12).
Management committee	Informal advisory body established in October 2006, made up of 3 senior men and 3 senior women.	The management committee was established as a local advisory body to Anmatjere CGC. The intention is for the management committee to meet weekly to discuss issues of local importance with the community.
Members fund	Informal organisation made up of CDEP membership.	Funds are pooled through \$10 weekly deduction from CDEP wages. Funds are allocated to purchase fuel for the settlement troopie and for settlement members to take out small loans (for second hand vehicles). The money is banked into a separate account and the settlement manager has access to the monthly statements. However, he is not a signatory for loans.
School committee	Recognised with the community and by DEET. The committee is made up of the teaching staff and community representatives.	The committee helps decide issues related to school curriculum, general organisation and facilities. The school committee meets regularly to discuss issues such as student attendance and performance, holiday programs, fencing, class room sizes, playgroup and a range of other issues.
Alcoota Aboriginal Corporation	Incorporated in 1992 under the Commonwealth Aboriginal Council and Associations (ACA) Act.	The Corporation holds the Alcoota Pastoral Lease over which Alcoota Station operates. Ownership of the Alcoota Pastoral Lease will soon be transferred to a Land Trust, and will be broadened to non-resident traditional owners and the cattle company.

Alcoota Aboriginal Cattle Company Pty Ltd	Incorporated business, which runs the pastoral enterprise over the pastoral lease.	The Company is owned jointly by Engawala Community Inc and Alcoota Aboriginal Corporation. Financial details of the company are not publicly available.
Ntjaminya General Store Aboriginal Corporation	Incorporated in 1995, also under ACA Act.	The corporation is responsible for running the local store and employs a store manager. The accounts are kept separate from those of other settlement organisations.

There are four formally incorporated organisations operating in Engawala, which are listed in Table 3 above. The oldest incorporated organisation is Engawala Community Inc, which until recently served as the defacto local governing body at Engawala. Engawala Community Inc was incorporated in 1974 under the Northern Territory Associations Act. This is unusual, since Aboriginal organisations are generally incorporated under the Commonwealth Aboriginal Communities and Councils Act.

These organisations effectively combine to form an informal confederation of local organisations, as shown in Figure 7.

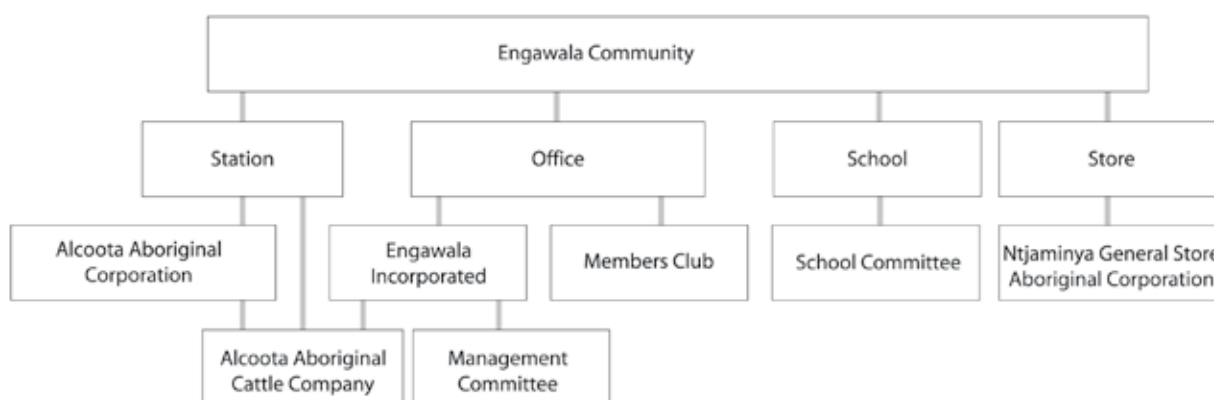


Figure 7: Confederation of local organisations

2.2.3 Anmatjere Community Government Council

Engawala does not have independent local government status, but is rather a ward of the Anmatjere Community Government Council (Anmatjere CGC). Anmatjere CGC was established in April 1993, under the community government provisions of the Northern Territory Local Government Act. The Council area covers a total of 3631 km², incorporating 10 wards: Engawala, Laramba, Alyuen, Anyungunba, Nturiya, Pmara Jutunta, Ti-Tree, Wilora, Woolla, and Yanginj (Figure 8).

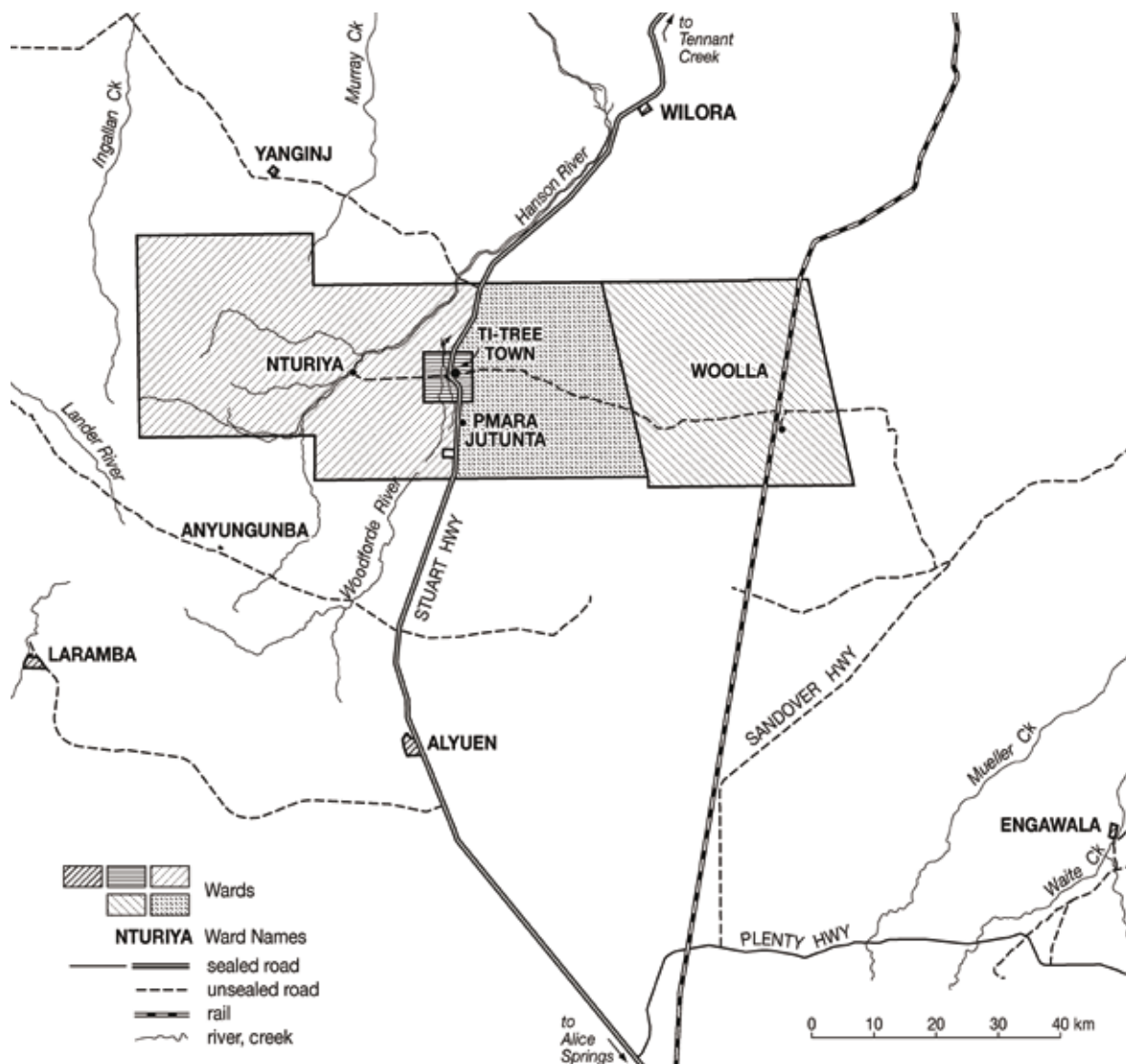


Figure 8: Anmatjere Community Government Council Area
 Source: (Sanders and Holcombe 2006, p. 21)

Under the Anmatjere Community Government Scheme, Engawala people have two councillor positions in the Anmatjere CGC. As of August 2006, Anmatjere CGC increased the previous \$90 sitting fees to \$150 per day to council members who are not on either wages or paid leave from work. There is also a mileage of 84c/km paid to those who use their private vehicle to attend the meetings.

Anmatjere CGC provides a range of services to Engawala, largely in keeping with its organisation structure (Figure 7). It operates an outreach sports and recreation program, programs for after school, school holidays, 'have-a-go-Saturdays', and seven-a-side rugby. It also provides essential services (water, power and sewerage) under contract to the Power and Water Authority, paying operating and maintenance costs, and CDEP 'top-up' for an Essential Service Officer in Engawala. Aged-care services are provided under the 'flexible aged-care program', which includes subsidies for food and medicines. As of July 2006, Anmatjere CGC began to administer the CDEP scheme, employing the community manager. A social services worker from Anmatjere facilitates a girls'

club through the school, focusing on self-esteem and women’s health education. Anmatjere CGC is also responsible for housing and infrastructure, including a recent round of housing upgrades. A dog health program began in October 2006.

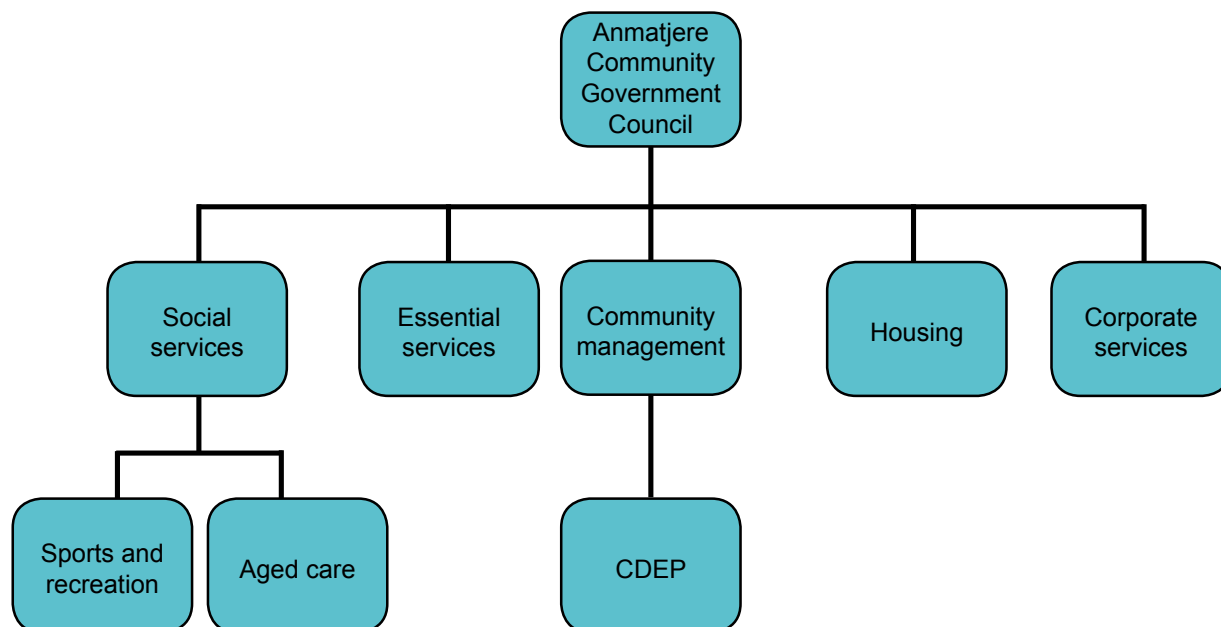


Figure 9: Structure of Anmatjere CGC

Staff from Anmatjere CGC visit Engawala frequently, often daily. The CEO visited Engawala at least three times during the study period. On one occasion, Anmatjere CGC organised a public meeting to explain policy changes affecting the CDEP program. There are also public notice boards in the store and the office which Anmatjere CGC and their agents use to communicate to Engawala people. A consultant was engaged by Anmatjere CGC to facilitate a series of workshops for the whole of the Anmatjere CGC. The purpose of these workshops was to strengthen the system of local and regional governance, and to improve the relationship between the regional body and its member settlements, especially the more established and independent settlements of Engawala and Laramba (Burdon Torzillo 2006, 4).

A significant constitutional change regarding quorum rules was endorsed during the study period. With the declining numbers of some member wards, Anmatjere struggled to meet its quorum rule of at least one representative from each ward. This led to the dismissal of the Council twice in 2004 and 2005. The new quorum rule is a simple majority rule, without proportional ward representation. An intensive consultative process was followed in reaching this decision, assisted by Burdon Torzillo and a community development officer with the Department of Local Government, Sports and Housing.

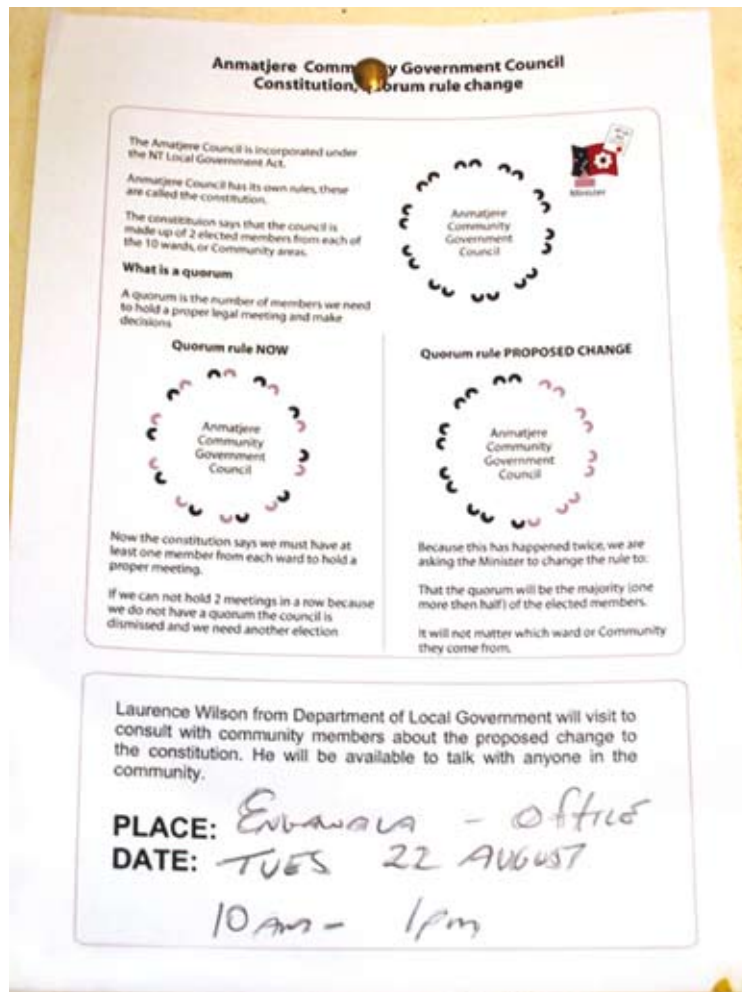


Figure 10: Poster of Constitutional changes

While Engawala has been a ward on Anmatjere CGC since 1993, it has retained a high level of autonomy through the operation of the local-level Engawala Community Inc. The level of autonomy has recently declined, with the transfer of CDEP management and employment of the CDEP manager to Anmatjere CGC in 2005. There is certain wariness among Engawala people of Anmatjere CGC as a result. As a means to address this, Burdon Torzillo was facilitating discussions into the divisions between local and regional functions, leading to a proposed Memorandum of Understanding between Engawala and Anmatjere CGC.

2.2.4 The local school, clinic and police

Only two Northern Territory government departments have established administrative units in Engawala: Alcoota School, operated by the NT Department of Employment Education and Training (DEET); and the local Clinic, operated by the Department of Health and Community Services (DHCS). Both these Departments use the name Alcoota instead of Engawala for the local facility. The nearest police station is in Atitjere (Harts Range).

DEET operates a two-classroom school at Engawala, as well as a house for teacher accommodation. In 2005, the school had 50 enrolled students up to grade 10, of which 12 were in preschool. In 2005, one year 11 student used school of the air facilities, but dropped out from studies because of limited support networks and other family commitments. There is a school principal and one

teacher. They are a couple, which makes sharing the one education staff accommodation possible. Teaching occurs with students from years 1–6 in one classroom, and years 6–10 in the other. An additional classroom is needed to accommodate the student numbers, and in mid-2006 a room in the council office was informally made available for a preschool as a temporary measure to relieve overcrowding. A preschool teacher visits one day each week, to provide support for local preschool teaching assistants. Education includes personal and hygiene programs, and the male school teacher leads a local music band for boys.

Women from the settlement prepare lunch for the school children and CDEP workers from Monday to Thursday. A nutritionist from the DHCS comes approximately once every six weeks to promote a healthy and balanced diet, providing practical demonstrations with settlement members at the Women's Centre and with school children at the school.

The Clinic was inoperative for much of the study period, after a fire substantially damaged the internal fittings inside the premises in March 2006. Prior to this, a nurse based in Atitjere visited Engawala once a week. A position for an Aboriginal health worker has been vacant for some time. A District Medical Officer, who visits Atitjere Clinic once a month, visits the Alcoota School once a year.

Because of the very limited medical service, especially after the clinic closed, people are forced to travel elsewhere for medical treatment (not including the emergency evacuations by air). They go mostly to the Atitjere Clinic and Alice Springs Hospital Emergency Room and use settlement and private vehicles. DHCS reimburses the settlement for the use of the settlement vehicle for a regular Wednesday run to Atitjere Clinic, at the rate of \$1/km.

Towards the end of the study, the clinic was being renovated with a view to it reopening at the end of 2006. However, there will be no full-time nursing staff appointed to Engawala, as it is DHCS policy to avoid single nurse posts and Engawala is deemed too small for two staff. This means that access to a whole range of preventative and health promotion activities, such as antenatal care, are difficult or non-existent for Engawala residents.⁹

Engawala is serviced by an unpaved airstrip on Alcoota Station, which is suitable for night landing. Over the fiscal year 2005/06, there were 18 medical evacuations by the Royal Flying Doctor Service. As this is the only night-time airstrip in the area, it has been used in the past for emergency evacuations of patients from Atitjere and Mulga Bore. The number of evacuations recorded in this timeframe is large, and in part reflects the inadequacies in locally available primary health care services.

While based in Atitjere, officers from the Northern Territory Police visit on request from community leaders. They are prepared to visit on a set day each week, but are waiting for the community to suggest a suitable day. Apart from the occasional problem with breaches to alcohol restrictions and violence, there is a perception by outside service providers that Engawala has less need for law enforcement than many other remote settlements. A community member started training to become a security guard, and the current community manager is encouraging him to work towards a position as a 'deputy police aid'. In recent months, the community has developed a Night Patrol unit to reduce tension, violence and alcohol abuse within the settlement.

⁹ In 2000, the settlement made a request for funds from the Commonwealth Government to run their own health service with a full-time nurse (Territory Health Services 2000) but the funding was not approved.

2.2.5 External networks

Table 4 describes the external organisations with active networks in Engawala, with details of staff and the frequency and reasons for their visits.¹⁰ It does not include external organisations or service providers who do not visit Engawala, or visit so infrequently, that their employees are not known locally.

Table 4: External organisations visiting Engawala¹¹

Department/organisation	Number of staff members	Frequency of visits	Reason for visiting
Department of Health and Community Services	1 nutritionist	1 day every 6 weeks	Classes with women's centre and school promoting nutrition
Charles Darwin University	1 lecturer	2 days every 2 weeks	Cert 2 in Art
Department of Local Government, Sports and Housing	1 community development officer	Intermittently	Governance issues
Centre for Appropriate Technology	3 research officers 2 project developers	3 days every 3 weeks (during field work period)	This research study, as well as training
Department of Education, Employment and Training	2 mobile early childhood workers	1 day per week	Early child development
Central Land Council	Lawyers and anthropologists	Intermittently	Assist the Alcoota Aboriginal Corporation with its affairs. The Corporation's contractual obligations are facilitated by the CLC.
Tangentyere Job Shop	Training staff	Just started towards end of study period	Job network agency that all CDEP participants and Centrelink clients have to register with
Power and Water Authority	1 technical officer	Intermittently on request	Oversee work of ESO
All-women veterinary practice from Alice Springs	Veterinary officers	Just started towards end of study period	Dog health program
Geelong Christian College	Teachers and students	Annual event	School camp
Waltja	Staff	Intermittently	Aged care Leadership training

External networks operate at an inter-personal level with key service providers and outsiders. At times of need or strategically as a means to harness resources or to obtain information from a trusted source, people from Engawala, especially leaders, draw on these contacts. By the definition of an asset-based approach, these external networks are critical. The external networks considered here are distinct from the internal (or horizontal) networks covered above under local organisations: Anmatjere CGC, and the local clinic, school and police. They are also distinct from the external networks which do not interact with Engawala, operating within and between government departments and operators at higher administrative scale.

¹⁰ Locally stationed school teachers, police and health staff are clearly a part of the local governance 'scene', and so are considered separately in the preceding section.

¹¹ With sufficient regularity to develop relationships with local leaders and employees.

The distinction of external and internal networks is not clear-cut. In terms of actors, some employees of Anmatjere CGC would be clearly external, just as some actors from government departments in Alice Springs visit with sufficient regularity to become a part of the local scene.

Despite occurring only once a year, the annual visit of staff and students from the Geelong Christian College was clearly significant to the community. The intensity of activity and cultural exchange involved in the school camp was an event that people looked forward to.

Engawala does not fit the widespread perception that settlements are overloaded by a regular influx of service-providers – in fact, people had difficulty recalling who visited the settlement. This is the result of a consistent trend towards centralisation of offices and staff under liberal policies, whereby ‘the overall (if unintended) consequence has been that government has ‘vacated the field’ of hands-on community development’ (Smith 2004, 9).

2.3 Human capital

Human capital is ‘the skills, knowledge, ability to labour and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives’ (DFID 1999–2001, 2.3.1). Skills increase with education, training and age. Knowledge increases with information. Ability to labour is increased with health, skills and motivation. Good health is affected by a large number of factors, including nutrition, preventative medicine and psycho-sociological wellbeing.

In international development settings, the labour and human capital of poor people is probably their greatest asset (Moser 1998, 2). In the welfare-based economies of remote Aboriginal settlements, with the lack of employment and private enterprise, human capital is arguably the least-developed asset.

2.3.1 Education

Engawala families place a high priority on education. The school is positioned close to the centre of the settlement, and it plays an important role in the daily activities observed at Engawala. Lunches are cooked daily at the women’s centre for school children, and a range of school ground improvements have been built by CDEP participants.



Figure 11: Alcoota school

Data was obtained from the Department of Education, Employment and Training (NT) on the enrolment and attendance of school children at Alcoota school (Figure 12), from 1997 to 2006 (Note: attendance data was not available for 1997–1999). Attendance rates were in the range of 70–85% over this period.

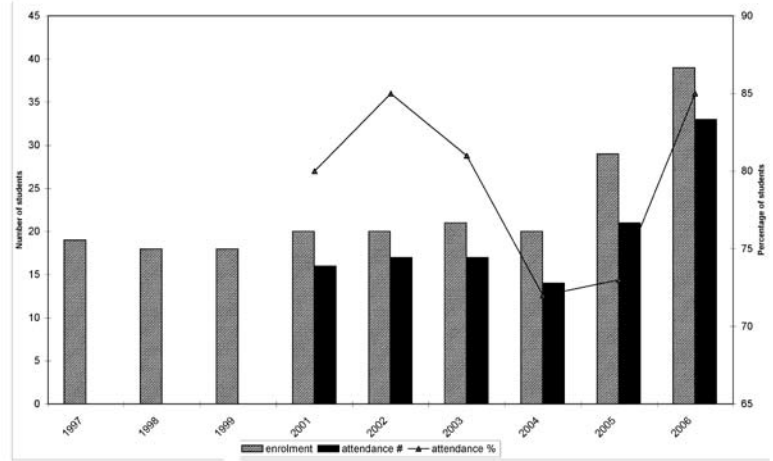


Figure 12: Enrolment and attendance at Alcoota school

Data was also obtained from the Department of Employment, Education and Training (NT) from the Multilevel Assessment Program (MAP), which assessed reading, writing, spelling and numeracy levels of Year 3, 5 and 7 students in the Northern Territory. The tests determine the number of students who have achieved a minimum competence measured against national benchmarks in reading, writing, spelling and numeracy. Engawala is included in the data for Group School East.¹² The number of students achieving the benchmark is low. No student from Engawala passed the benchmark at any level.

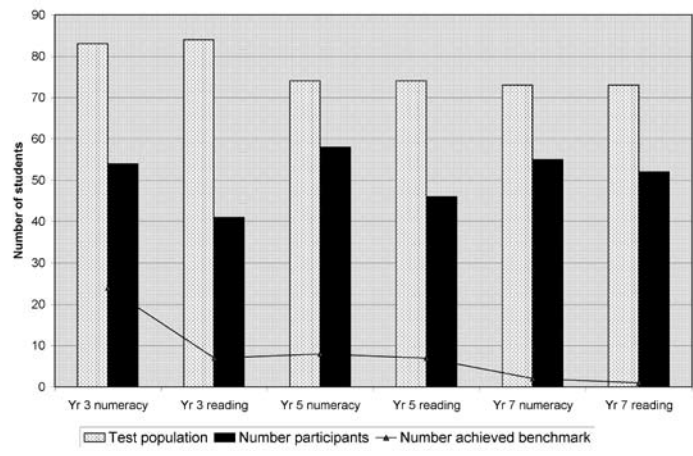


Figure 13: Results from MAP Test in 2004 for Group Schools East

¹² Group School East is one of the five Group Schools operated by DEET. It is comprised of ten small- to medium-sized remote schools representing approximately 750 students, 100 school staff, and five main language groups. English is a second, third or fourth language for all students and many staff. The schools are all several hundred kilometres out of Alice Springs.

Given the community priority placed on education, the poor results from the MAP test raise several questions. According to the current principal, the MAP test is a poor measure of performance, since the test is based on cultural perspectives which are unfamiliar to the students at Engawala; students thus have trouble understanding the concepts as well as the wording of the questions. Applying cultural explanations to educational differences like these is currently an area of considerable debate and contestation in Australia. Clearly there is a mismatch at Engawala between the level of activity and interest in education in Engawala, and educational outcomes that are emerging. The causes for this mismatch need further analysis that addresses (among other things) the adequacy of teaching methods, parental support, and the amenity of home study environments.

2.3.2 Employment and training

Table 5 lists employment positions in Engawala, excluding part-time CDEP. Of the eleven positions, six are held by Aboriginal community members, and only one of these is full-time. Moreover, the small number of available positions and their necessary skills level gives little scope for people wanting to pursue employment in Engawala.

Table 5: Employment positions at Engawala (excluding part-time CDEP)

Position	No	Status	Employed by	Aboriginal people employed
Community Manager	1	Full time	Anmatjere CGC	0
Aboriginal Team Leader (deputy community manager)	1	Full time	Anmatjere CGC (since October 2006)	1
Essential Service Officer	2	Part time	Anmatjere CGC	2
Store Manager	1	Full time	Ntjaminya Inc	0
School Principal	1	Full time	DEET	0
School Teacher	1	Full time	DEET	0
Teachers' Assistant	3	Part time	1 – DEET 2 – CDEP (with top up)	3
Health worker	1	Vacant		0
Total	11			6

In addition to settlement employment, there are six workers employed intermittently at Alcoota Station, two of whom are on CDEP. The other four are paid in cash, informally and intermittently.

The Aboriginal Team Leader was previously the Essential Services Officer (ESO), but he was promoted towards the end of the study period. He had successfully undertaken an ESO Familiarisation Course, run by the Power and Water Corporation (Remote Operations) in Alice Springs. He is the only Aboriginal full-time employee in Engawala, but he is originally not from Engawala.

With his promotion, the ESO position was shared by two part-time employees on CDEP with a top-up paid by Anmatjere CGC, as part of the essential services contract it has with the Power and Water Authority. The ESOs fulfil an important role in Engawala, keeping the water, power and sewerage systems operational, as well as doing the maintenance of the school yard. They are supported in his role by another ESO, who is based in Ti Tree.



Figure 14: Essential Services Officer

The school employs three women as teacher assistants, for approximately four to six hours a day. Only one is employed by the school; the others are on CDEP with top-ups. There is a position for a health worker, but this position has been vacant for some time, and the clinic was not operational for most of 2006.

All other workers in Engawala are employed part-time through CDEP. Most CDEP workers work for four hours a day, four days a week. There is a break over Christmas, as well as breaks for sorry business and school holidays. Since 1999, the community has implemented a 'no work, no pay' policy which was being strictly enforced by the community manager in 2006.

There is a significant selection of tools and equipment available which means that a range of works can be carried out. Examples of CDEP activities during the study period:

- Improvement to school grounds, including laying of concrete pavers, painting, erection of a shed and dog-proofing of the fence
- Collection of rubbish using tractor and trailer combination
- Preparing a trench for contractor to fix a burst water main
- Office and general cleaning
- Working alongside contractors doing housing renovations
- Collection of firewood
- Construction of the settlement stage
- Upgrade of an ATCO donga for staff accommodation.

Skills training has been offered on many occasions, but mostly has not lead to jobs, with the exception of the ESO position. A random selection of 25 adults (12 males, 13 females) was taken to look at the types of skills within the community. It was not possible to ascertain whether courses listed were completed, and whether qualifications were achieved.

Table 6: Results of sample of skills at Engawala

Courses studied	Number of adults in survey	Percentage of adults surveyed	Gender split (male/female)
Year 10	4	16%	3 / 1
Year 12	0	0	-
University degree	0	0	-
Cert 1 or Cert 2	25	100%	12 / 13
Health	1	4%	0 / 1
Technical or trade	22	80%	12 / 10
Leadership	4	16%	1 / 3
Rural	2	8%	2 / 0
Office/Admin	1	4%	0 / 1
Settlement services	6	30%	1 / 5

Training courses are not actively sought out and people do not have a clear understanding how to source them. Documentation on previous training courses run in Engawala was not available. The only source of available information was from a number of Registered Training Organisations, which indicated that the following training courses were offered in Engawala (Table 7).

Table 7: Recent training courses offered by RTOs

Skill	Level	Number of participants	Completion
Welding	Cert I	10	partial
Mechanics	Cert I	16	partial
Rural skills	Cert II	1	completed
Remote essential services operation	Cert I and II	1	completed

Despite these existing skills and the availability of different training opportunities, there was a mismatch with current jobs. Three women in Engawala have in the past worked as Aboriginal Health Workers, yet the position of health worker has been vacant for some time. The lack of employment in Engawala is a matter of considerable concern to the community leaders and the current community manager. Beyond the scope of the study, the research team at CAT was asked to include a detailed investigation into skills and employment aspirations of community members. The outcome of the skills audit is given in Appendix D.

Engawala residents expressed interest in learning a variety of skills including sewing, hairdressing, driving cars and heavy machinery. Generally, people were more interested in work which involves looking after the community, rather than enterprise development. Aspirations for employment did not necessarily reflect the skills that people had previously gained.



Figure 15: Welding skills at Engawala

There are no administration employees working in the office, or retail employees in the store, other than the respective managers and CDEP workers. Nor is the community active in other areas of potential employment, such as land management activities. Many of the women in the settlement viewed everything through the lens of childcare responsibilities, and paid work was an additional rather than a central concern for them.

The current community manager had the sensible view of starting with job creation, rather than with training. Table 8 sets out the job creation opportunities under consideration at Engawala, together with the skills training that might be necessary.

Table 8: Potential job creation opportunities and required skills

Potential opportunities	Detail	Skills training (*)
Firewood	Firewood collection for the campground at Gem Tree, or for market in Alice with the store truck going to town empty each week; maybe even to Adelaide	Chainsaw handling, and related OH&S
Car wrecking	Strip cars for parts, sell them to other settlements and maybe on the internet; there are 200 cars in the dump, even just to sell the bodies for \$150 as scrap metal	Car mechanics Literacy and numeracy skills involved in inventory and sales Computer skills to sell via internet
Art centre	Producing art work and artefacts for sale	Painting, printing, woodworking and various technical skills to produce good quality work Literacy and numeracy skills involved in inventory and sales Computer skills to sell via internet
Hairdressing	Services provided within settlement Possible opportunity to train with Indigenous Community Volunteers (ICV)	Hairdressing and hygiene

Store management	Management of stock including ordering, stock taking and stocking shelves; checkout and cleaning; freight from Alice Springs	Literacy and numeracy skills involved in inventory, ordering and sales Planning and management skills Computer skills
Local construction team	Housing maintenance and renovation/ upgrade of old structures Construction of new structures including shade and changing rooms for sports Possible opportunity to train with Indigenous Community Volunteers (ICV)	General construction skills Planning and management skills Specialised trade skills
Sewing program	Clothes, swags (including dog swags), curtains, etc. For sale and for own use	Some women have sewing skills Tailoring Literacy and numeracy skills involved in inventory, ordering and sales Planning and management skills
Office administration	Answer phone, operate fax, internet banking, and general office duties	Office administration skills Literacy and numeracy English language Advanced computer skills
Centrelink Access Point	Support Centrelink customers accessing services through Access Points Centrelink Access Point provide self-help facilities which assist customers to access Centrelink services. This includes services such as: <ul style="list-style-type: none"> • use of a telephone to speak to a Centrelink Customer Service Officer • use of a fax machine to send information to Centrelink • providing Centrelink forms, brochures or information products 	Office administration skills Literacy and numeracy English language Advanced computer skills Centrelink-specific training
Orchard and landscaping	Growing shade trees Growing food	Horticulture
BRACS	Broadcasting and audio-visual media production Maintenance of equipment Opportunity with Warlpiri Media	Radio and video production skills Equipment maintenance skills

Notes: (*) Preferably accredited, but in some areas and for some people non-accredited

2.3.3 Health

Detailed health statistics are not available at a settlement scale, but a 1999 report on Engawala and a regional report give some overview (Territory Health Services 2000; Mitchell et al. 2005). The health status of the Aboriginal population in the central Australian Region is relatively poor in comparison with other non-Aboriginal populations or Aboriginal population outside this region. The standardised mortality rate is 2.95 times that of the total Australian population. Identified health issues include:

- Circulatory system diseases: including rheumatic heart disease, strokes and high blood pressure (hypertension)
- Coronary heart disease
- Obesity and diabetes
- Renal failure
- Injury (land transport accidents and violence)
- Trachoma and eye problems
- Scabies and skin infections
- Child health
- Child malnutrition, including anaemia
- Chronic obstructive airways disease (including emphysema and chronic bronchitis)

The research team discussed public health concerns with community members, the visiting nurse and the district medical officer. There are many people above the age of 30 who suffer from chronic diseases, especially diabetes. In 2006, there was one case of chronic renal failure. There are also a number of adults who suffer from high blood pressure levels. Other chronic diseases present include heart disease, thyroid disorder, epilepsy and asthma, although incidences of these are fairly low at Engawala.

Children have very good levels of protein, and only one case of anaemia was reported during the last school check-up. Almost all the children suffer from infectious trachoma and many of the adult population are also carrying the infection. Many children also suffer from scabies, which is probably related to environmental health problems.

A recent report on environmental health (DHCS 2004) confirmed the obvious presence of a large number of dogs in Engawala: 93 in the 18 houses they surveyed (or 5.2 per house). Towards the end of the study period, a veterinary team from Alice Springs was starting a dog health program. Other environmental health problems are caused by dust and the lack of toilet facilities in some houses.¹³

Through 2006, Engawala was severely disadvantaged by a lack of primary health care services. The Clinic was damaged by fire from an electrical fault early in 2006, and renovations did not begin until late 2006. In the absence of a local nurse, regular travel was necessary to Atitjere clinic, and all medicines and tablets were distributed through the store manager.

Many people need access to specialist health services outside Engawala. Problems in eye health are probably exacerbated because of the difficulties in accessing specialist care. A full-time nurse would help to relieve these public health concerns and also to coordinate specialist services, particularly when the same conditions present in many community members.

The food available at the store during the study period was of limited nutritional value. On average, there is usually between 3–7 varieties of fruit and vegetables, in comparison with a large variety of takeaway items (such as microwavable burgers, pies, pizzas, etc). This observation is reflected in a market basket survey in 2006 by DHCS, which found only four varieties of fruit and vegetable available for purchase. More positively, the survey also found that the food prices of standard items are not much more expensive than in Alice Springs supermarkets. This may be in part due to the relatively low cost of transport: Engawala is only two hours from Alice Springs (in comparison with many other remote settlements) and the community arranges its own transport, so no outside freight charges are applied.

2.4 Financial capital

Financial assets constitute both stocks and flows of cash, as used for both consumption and production (DFID 1999–2001, 2.3.5). Stocks of financial assets include cash, bank deposits and liquid assets such as artwork. Flows are regular earned income and welfare payments, including royalties. Financial assets are the most versatile type of asset since they are readily convertible.

Economic opportunities in a financial sense at Engawala are limited. Government allocations dominate income in the form of government grants and welfare payments, which return a limited circulation, mostly through the store. There is very little internal capital or savings against which to leverage economic development. The small size and remoteness of Engawala ensures that it is

¹³ The later was rectified towards the end of the study period.

disadvantaged in an age of economic globalisation, which favours intensification of activity in urban centres. This similarly affects the non-Aboriginal population living in the same rural and remote areas. These obstacles ensure that Engawala will remain limited in its ability to reach some measure of economic independence. Whereas mainstream settlements (and to a lesser extent, international development settings in third world countries) are underpinned by a market economy, remote Aboriginal settlements are characterised by the very lack of one.

2.4.1 External funding

Budget figures for Engawala Community Inc 2005/06 are given in Table 9 and for the respective Engawala budget codes from Anmatjere CGC for 2006/07 in Table 10. From the start of the 2006/07 financial year, the administration of the CDEP and other local finances program was shifted from Engawala Community Inc to Anmatjere CGC. The budget figure for 2006/07 suggests a slight increase in budget.

Table 9: Engawala Community Inc Budget for 2005/06

Item	Budget
CDEP participant wages	\$714,480
CDEP materials	\$12,500
CDEP services	\$123,600
Community manager	\$55,000
CDEP supplies	\$45,800
Total	\$951,380

Table 10: Anmatjere CGC Engawala Budget for 2006/07

Item	Budget
CDEP participant wages	\$750,500
CDEP materials	\$55,000
CDEP expenses	\$61,750
CDEP motor vehicle purchases	\$28,400
Community manager	\$56,000
Management general expenses	\$45,000
Total	\$996,650

In addition to these figures, Engawala receives funding under a variety of grants which service the entire Anmatjere CGC area. It was not possible to disaggregate the proportion of these grants that benefit Engawala, since Anmatjere CGC does not disaggregate its finances according to its member settlements.

2.4.2 Settlement store

The settlement store is operated by Ntjaminya General Store Aboriginal Corporation. For the last three financial years, very little profit was accumulated, as shown in the table below. The small amount of profit was divided up into community members or spent to improve settlement facilities (e.g. additional washing machines). In the past, profits have been allocated to individuals, but now profits are directed to purchases for community benefit.

The store purchases through a wholesaler in Alice Springs. At an Engawala Community Inc meeting it was agreed that the price mark up would be 30% for GST items and 60% for non GST items. A higher mark up would increase the profits that could be directed to community benefit, but this would defeat the purpose, since the higher mark-up would be borne by Engawala people as customers of the store.

Table 11: Finances for Engawala Settlement Store

	2002/03	2003/04	2004/05
Total Revenue	\$570,835	\$572,788	\$606,140
Total Expenses	\$556,734	\$596,209	\$587,041
Operating Surplus/Deficit	\$14,101	-\$23,421	\$19,099
Profit (%)	2.47	-4.08	3.15

The community manager expressed some concern about the decisions of the store manager, and about some issues that directly affect people’s health (e.g. dogs in the store, general cleanliness, high prices of healthy food and hygiene items). The community manager is an employee of Anmatjere CGC, while the store manager is employed by Engawala, so the community manager has no authority over the store operations with the exception of enforcing environmental health regulations. A report on environmental health (DHCS 2004) did not find any major faults with the operations of the store.



Figure 16: Inside Engawala store

The Store provides a number of services to support personal finances. This includes an ATM machine, personal banking, book-up, and processing of CDEP payments. During the study period, CDEP payments were paid from the Council office from April 2005 until October 2005. After this time, the store manager had the responsibility of distributing pays until the end of the 2006 financial year. Towards the end of the study period, responsibility for CDEP payments had reverted back to the community manger. The store does use a book-up system but this is limited to essential food items and to people from the settlement who the store manager knows to be receiving steady income.

2.4.3 Alcoota Station

The research team were unable to obtain detailed financial details on the operation of Alcoota Station, largely due to sensitivities surrounding land tenure and management. The pastoral lease is owned by Alcoota Aboriginal Corporation, but only approximately one quarter of the members of this corporation are Engawala residents. The pastoral business is operated through the Alcoota Aboriginal Cattle Company Pty Ltd, but financial details are not publicly available. Day-to-day operations are managed by the Station Manager, at some length from Engawala settlement. Not long after the purchase in 1993, the Central Land Council lodged a land claim over the property under the Northern Territory Land Rights Act. A number of Engawala leaders unsuccessfully opposed the land claim. Pending a final report from the federal judge, ownership of Alcoota station will pass to a land trust of traditional owners (some of whom are living in Engawala, with others living outside the settlement with traditional connections to country). Due to the political sensitivities around this transfer, community leaders cautioned the research team about enquiring into the operational aspects of the Station. The following information is largely based on public sources and anecdotal accounts, and a limited interview with the Station Manager.

The cattle company operating on Alcoota Station has a prize-winning herd of 5000 head, winning the ‘champion of steers’ at the Alice Springs Show in 2001. Much of the income has been directed back into the station, through the likes of yards, troughs, bores, fences and pasture development. It also retains sizeable investments to see it through bad years. Remaining profits have been distributed to Engawala people, through a process which is somewhat informal. Anecdotally, two troop-carrier 4wd vehicles were purchased in the past. The station manager will also occasionally provide a ‘killer’ for community consumption. During the study period, profits were divided into portions and distributed to community members, with a portion set aside for a proposed BMX bike track and a football oval.



Figure 17: Alcoota Homestead

According to a previous manager of Engawala Community Inc, approximately \$60,000 was allocated to the settlement from the cattle station for the 2004/05 financial year. This included a new ‘troopie’ vehicle provided from the station. Some families were also reported to receive ‘royalty’-style cheques from the Station, but the details of this were not available. It was possible

to conclude that employment and profits from the Station were not a significant source of funding or income to the local Engawala economy, which was otherwise dominated by CDEP/welfare payments and government grants.

2.4.4 CDEP and welfare payments

The largest financial input into Engawala settlement was through the Community Development Employment Program (CDEP), which has operated in Engawala since 1997. In September 2006, there were 61 people on Engawala CDEP program, although 12 of these were located on Mulga Bore and nearby outstations. Several people receive ‘top-ups’ beyond the normal CDEP payments, including those who worked in the school. In keeping with the ‘no work, no pay’ policy, the actual CDEP payroll varies on a weekly basis. If the total CDEP wage budget is divided by the number of participants, the average fortnightly salary is \$472. The actual payments to different individuals varies according to the number of days worked and individual ‘top-ups’.

The community manager provided figures on the number of people receiving the different types of welfare payments available by Centrelink, as set out in Table 12. The numbers of recipients include people living in Mulga Bore and other nearby centres. In comparison, Centrelink advised that 73 people received welfare payments with an Engawala address, which roughly correlates with the numbers listed in Table 12, once allowance is made for Mulga Bore and other outstation residents.

The large number of people on Newstart Allowance (unemployment benefits) compared with the number of CDEP participants needs to be noted, as well as the three people signed up for Abstudy but not receiving payment, most likely because of breach. The quantity of categories of payments that are not accessed, on the other hand, could reflect the limited service Engawala is getting from Centrelink (one annual visit and no local Centrelink agent). For example, there are several people in the settlement who are carers for old people, yet they do not receive the ‘carer payment’. The under coverage of payment types has been reported elsewhere in Central Australia (Smith et al. 2000, 56).

Table 12: Welfare payments for Engawala

Centrelink payments received	Number of recipients	Centrelink payments available but not accessed
Age Pension	12	Bereavement Allowance
Newstart Allowance	44	Carer Payment
Abstudy	3	Disability Support Pension
Family Tax Benefit	25	Parenting Payment
Top-up for low income earners	6	Sickness Allowance
	-	Widow Pension
	-	Wife Pension
	-	Youth Allowance Job Seeker
	-	Partner Allowance
	-	Widow Allowance
	-	Parenting Payment
	-	Special Benefit
	-	Youth Allowance Student
	-	Rent Assistance
Total	90	

The research team went to great lengths to find the amount of welfare payments, but ran into multiple difficulties. The figures provided by the community manager were found to be unreliable and did not agree with the benchmark figures published by Centrelink. Centrelink was approached directly, but would not provide information due to the low population of Engawala and their inability to de-identify data sets with less than 20 people. It became necessary to draw on average figures available for other research. In an investigation of the socioeconomic indicators at Wadeye and surrounding outstation, John Taylor was able to secure Centrelink data, presumably due to the larger population and data set (Taylor 2004). Based on his data, the average welfare payment was Wadeye \$305 per fortnight. Applying this figure to the 73 nominated Centrelink participants, with an allowance for inflation for the four years from 2003 to 2006, the total sum paid in welfare for 2005/06 financial year is estimated to be of the order of approximately \$600,000 (within +/- 10%). This is approximately of the same order as the total annual CDEP payroll.

2.4.5 Household income and expenditure

No individual at Engawala is currently engaged in private enterprises or trade. There are also no formal settlement businesses (such as art or tourism business or art centre) run by community members of Engawala. Many individuals, however, engage in temporary, informal work or enterprise, including seed and bush food collection and art sales. The latter case is most lucrative. In the past, art materials have been supplied and paintings sold through the nearby art centres (including the Atitjere Arts Centre) or when people visit Alice Springs.

The community is seeking funds to establish a more formal arts centre in Engawala. A trainer from Charles Darwin University (CDU) is visiting two days per fortnight to do art with the people who are interested. CDEP funds are used to provide money for canvas, paint, paint brushes, etc. Sales operate on 50/50 percentage basis, with 50% back to the settlement funds for more supplies, and 50% to the artist.



Figure 18: Engawala artwork

Remittances are those money and resources received by Engawala members from outside social networks (friends, relatives and family members who reside in another location). It was difficult to obtain figures on this type of income; people forget about actual numbers and the remittances are hard to quantify (i.e. money, food, exchange of food, etc). Nonetheless, it was evident that remittances are a vital source of income and resources for many of the residents of Engawala. In a focus group of 12 community members who were all women, one respondent suggested:

My son works in Mt Isa at the mines and he sends back money every month to help out with food and paying bills. My daughter lives in Alice Springs and we bring her bushtucker (like bush tucker, kangaroo) and she helps me with money.

Remittances also occurred for one-off events or circumstances (e.g. funeral), as one woman noted:

It is very culturally important that our families, wherever they live, support us during sorry business, with food and money. We can't do our CDEP work at this time, so families have to help us and bring us things.

In terms of household expenditure, a number of payments are routinely deducted from payments, which collectively add up to approximately \$40-50 a week for each working adult.

- Rent is charged at the rate of \$10 to \$15 per adult
- All adults on CDEP pay into a members' fund through a \$10 per week deduction
- CDEP participants pay \$10/week meal contribution (four meals/week at midday)
- Anmatjere CGC is proposing to introduce a weekly service charge to cover the costs of water supply and sewerage, at a proposed rate of \$10–15/week/adult

The research team was limited in its ability to research other household expenditure patterns. The complexities and privacy involved in household expenditure surveys are significant, and include mobility and shifting household compositions. The Australian Bureau of Statistics 'Household and Expenditure Survey' (HES) excludes remote Aboriginal settlements due to these methodological problems. Accurate estimates of household expenditure may only be possible through a long-term ethnography using participant observation techniques.

It is possible to make some broad estimates only. By adding the total CDEP and estimated welfare payrolls and subtracting the total store turnover and weekly deductions, an estimated \$550,000 was not circulated through the store through 2005/06.¹⁴ Assessing the expenditure of this money becomes even more tenuous. Anecdotally, considerable expenditure took place with the purchase, maintenance and operation of private vehicles. Private vehicles are not permitted to access fuel from the settlement bulk supply, so fuel is purchased at Atitjere, Gem Tree or Alice Springs. If the 20 private vehicles averaged 200 km a week each, the annual cost can be estimated at \$150,000.¹⁵ People also regularly travel to Alice Springs and other nearby retail outlets for shopping and in some instances, to purchase alcohol. There are also costs involved with visiting kin in other locations, and in taking holidays. Through this highly approximate means, it can be estimated that approximately 70% of income is spent on necessities, including food, clothing, consumer durables, domestic bills and fuel, with the remaining 30% spent discretionally on the likes of shopping, holidays and alcohol. The accuracy of this estimate is probably of the order of +/- 10%.

¹⁴ The cost of power and phone cards were included in the store turnover figures.

¹⁵ Based on Australian Taxation Rate for medium sized cars of 69cents per kilometre.

There were little savings in the sense of money held in a bank account, but a system of sharing operated informally. It was possible to observe the typical ‘feast and famine’ cycle associated with weekly payments in remote settlements, as observed by Yasmine Musharbash over a 12-month period at Yuendumu (Smith et al. 2000, 56).

... on ‘payday you spend it all, maybe \$100 or \$200 on shopping [essentials], tea, flour, meat, soap’. Any remaining income is used to repay money borrowed during the previous week, or to give money to people who will receive their payments in the following week. Cash, as well as food and other commodities, flows along well-established but highly variable lines of sharing networks. To ‘bank’ with each other in this way is a key survival strategy.

2.5 Physical capital

Physical capital is ‘the basic infrastructure and producer goods needed to support livelihoods’ (DFID 1999–2001, 2.3.4). DFID lists five main components of infrastructure that are considered essential to achieve sustainable livelihoods: affordable transport, secure shelter and buildings, adequate water supply and sanitation, clean affordable energy; and access to information (communications). These will be discussed in turn.

2.5.1 Transportation

Transportation is predominantly provided by private vehicles. There is no bus service at Engawala, but one settlement-owned vehicle (locally known as the ‘troopie’) fulfils this role for emergencies, meetings, and clinic runs to Atitjere. Table 13 sets out the number of vehicles by type and ownership. Many of the privately owned vehicles are not currently registered. In addition to those recorded, there is a multitude of wrecks in various states of disrepair and disassemble around the settlement, which provides a valuable stock of spare parts. The community is considering the development of an enterprise to strip and trade spare parts from wrecks for sale to other settlements, and possibly over the internet.

Table 13: Vehicles by ownership and registration

Type	Privately owned	Council owned
Station wagon	4	
Sedan	15	
Tractors		3
4WD/Truck	1	5
Trailers		3

Figure shows the street plan for Engawala and Figure 20 illustrates some of the transportation infrastructure. The main streets of Engawala are bituminised. There are no kerbs, and no provisions for storm water drainage, which is acceptable given the low rainfall. There are street lights on some of the power poles. Roads into and around the settlement-owned land are well formed dirt roads, and are maintained by Alcoota Station. The road from the Plenty Highway into Engawala has one major and several smaller creek crossings. At times of heavy rainfall the settlement may become cut off for several days.

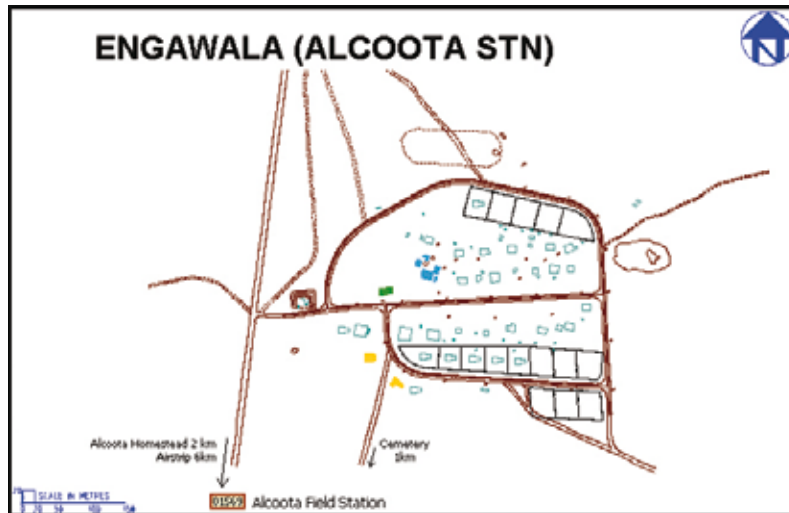


Figure 19: Engawala Street Plan¹⁶

There is an unpaved airstrip for light aircraft on the pastoral lease, about five kilometres from Alcoota station. The airstrip has markings, wind sock, and battery operated lights are available for night evacuations.



Figure 20: Transportation Infrastructure

Notes: Clockwise from top right: (a) windsock at the Alcoota airstrip, (b) Alcoota airstrip runway, (c) Anmatjere Council Essential Services vehicle for Engawala, (d) Engawala streets, (e) main access road from Plenty Highway.

¹⁶ <http://www.bams.nt.gov.au/prod/bams/inventory/index.cfm?fuseaction=inventory&hreflink=A200ENG>

The community manager estimated that settlement vehicles, including the troopie, use about 2000L per month. Fuel for the troopie is paid from the community members' fund (see Section 2.2.2). Private vehicles are not permitted to access fuel from the settlement bulk supply, and so have to refuel at Atitjere, Gem Tree or Alice Springs.

2.5.2 Housing

There is a total of 26 houses in Engawala, although only 18 of these are habitable as settlement houses (Table 15). According to the experience of the authors, nine of these 18 are in good condition and nine are acceptable. If these habitable houses are considered by their constituent rooms, then the average occupancy rates are 50% higher than the normal public housing standard (Table 14).¹⁷ In comparison, the occupancy rate of staff houses is about one-tenth the occupancy rate of settlement houses.



Figure 21: Different styles of Engawala houses

¹⁷ Overcrowding was recently relieved through the renovation of three houses through 2006.

Table 14: Housing by type

Type of housing	No	Notes
Staff house – permanent	3	1 is unoccupied, total of 3 residents in the other 2
Staff house – visitors	1	1 resident, used as permanent accommodation now
Condemned – still occupied	2	1 is used by non-resident visitors
Condemned – no residents	2	
Habitable occupied settlement houses	18	
Total	26	

Table 15: Occupancy by rooms (settlement housing only)

Habitable houses by rooms	No.	Average occupancy rate for 135 people
Acceptable bathrooms	18	7.5
Acceptable kitchens	18	7.5
Acceptable bedrooms	49	2.7 (1.8 is the public housing standard)

A housing survey in Engawala (DHCS 2004) focussed on health hardware to perform the four most important healthy living practices (washing people, washing clothes and bedding, removing waste safely and the ability to store, prepare and cook food) as defined by the UPK Report (Nganampa Health Council 1987). This survey found that:

- 83% houses had a functioning hot water system
- 94% houses had a functioning laundry trough
- 56% houses had a functioning washing machine
- 78% houses had a functioning flush toilet
- 100% houses had no problems identified with the effluent disposal system
- 47% houses had a functional oven/stove
- 39% houses had adequate dry food storage
- 61% houses had a functioning refrigerator

The survey also noted the absence of electrical and fire safety devices: 22% of houses had no residual current devices (RCDs), and no houses had smoke detectors. Another safety issue was the presence of sliding bolts on the doors which pose a risk for fire and emergency egress.

The lack of cooking facilities in the houses confirms the observation that most cooking happens outside on open fires. The lack of adequate food storage in many houses is typical to other settlements, where the store effectively becomes the settlement ‘pantry’ and ‘fridge’, with daily or even twice-a-day visits. The number of family units that generally live in the one house (and who do not share income, so therefore probably shop separately) may also make the sharing of one kitchen facility awkward.

At the householder level, access to power, water and sewerage services are limited by the condition of associated service infrastructure such as toilets, kitchens and bathrooms inside houses. From inspections undertaken in July 2006, four houses at Engawala had no toilet, two houses had no power, and five houses did not have a working hot water system.¹⁸

¹⁸ Some of these problems were rectified by late 2006, with the completion of housing renovations.

Community-identified issues for improved housing are listed below:

- More houses and better designs to cater for bush living
- Fencing to keep dogs out
- Better heating in houses for the winter months
- Some houses are too small, with not enough rooms
- Houses are too low to the ground
- The waiting period for maintenance is too long
- Some houses have no stove
- Some air conditioners are not working properly.

2.5.3 Settlement buildings and facilities

The school consists of two transportable buildings erected since 1990 (Figure 11). There are two classrooms, with plans to erect a third to cater for the growing number of students. There is also an equipment storage shed. The yard area is well maintained with playground equipment and a large play area covered with sand. There are plans to get more computers in the school, as well as books and toys for the children.



Figure 22: Settlement buildings

Notes: Clockwise from top right: (a) settlement built stage, (b) women's centre and kitchen, (c) health clinic, (d) settlement office, (e) settlement store.

The Women's Centre is a concrete block building built in 1988, with outdoor seating, shade trees and a children's playground. The building and surrounds are well maintained and in good condition. The Centre is central to the settlement, in both a spatial and social sense. Engawala women cook meals every day for children, CDEP workers and the elderly.

The Community Office is concrete block building in good condition, and is unusually large for a settlement the size of Engawala. It includes three offices, a large meeting room, staff kitchen, toilets and storage. Much of the office is underutilised, and one of the rooms was recently converted into a preschool. The meeting room is also used for recreational and training purposes, and includes a pool table. It is not locked during the day, and is open for general community use. The conversion of underutilised office space is an interesting example of the transformation of these physical assets.

The Clinic is a relatively new concrete block building which was damaged extensively by a fire early in 2006. The clinic has two patient rooms and a separate house dedicated for visiting health staff. Late in 2006, it was under extensive renovation. The clinic was initially housed in a small tin shed, which is now used for the Broadcasting for Remote Aboriginal Communities Scheme (BRACS).

The settlement store was built in 1994. It is steel clad structure, which is very clean inside and well maintained. A leak in the roof was recently repaired. The range of products on sale is typical of settlement stores, with a disproportionate amount of 'sugary drinks' and junk food, in comparison with dairy products and fresh vegetables. The store manager decides what to sell, in keeping with local demand. Where possible, the manager tries to provide a choice between at least two different brands. A bank of microwave ovens is available to heat up 'prepared' foods (Figure 23). There are a number of chest freezers and display refrigerators, as well as an industrial cool room and freezer.



Figure 23: Checkout, ATM and microwaves in Engawala Store

The laundry has four coin-operated washing machines, with clotheslines out front. It costs \$5 a load, which includes a small packet of detergent. Originally there were only two machines, but then two more were purchased from profits from the settlement store. The facility is well-used and maintained.

Recreational facilities include a basketball court, football oval, and a settlement stage. The concrete surface of the basketball court becomes too hot in summer for day use, so there are plans to install night lighting. The surface of the football oval is similarly too hard for use, and there are plans to upgrade it to a bigger oval with a finer surface soil material. There is also a settlement stage, which was built under a training program run by CDU in 2005. The stage is a welded steel structure with night lighting. The stage area is fenced off, and covered with sand for softer seating. There was an aspiration to construct a cooking area near the stage with a barbecue, outdoor seating, shade structures and a dog-proof fence, to better cater for community events.

2.5.4 Water supply and sewerage

The Engawala settlement water supply is sourced from twin groundwater bores which are powered by reticulated electricity from the settlement powerhouse. A third bore was capped when a windmill pump was decommissioned in 2004 (Table 16). The aquifer was estimated to have a lifespan of 35 years in 1995 under current extraction rates of 0.27 L/s, or until the year 2030 (Burton 1996). It is unlikely that there are alternative groundwater supplies available on the Engawala land parcel, given its small area. Once the land claim is settled over Alcoota, there is a possibility that future groundwater exploration sites could be negotiated with the traditional owners and manager of Alcoota Station.

Table 16: Key characteristics of water supply bores

Bore #	Completion date	Depth (m)	Flow rate (L/s)	Current pump install date	Last stage level (m)	Last SWL obs. Date	Predicted aquifer lifespan in years (at date)	Current status
16138	24/09/1992	21.6	1.3	9/3/2004	10.4	9/3/2004	25 (1995)	Potable, Operational, quantity deemed critical 1995
11363	31/05/1976	33.6	0.6	9/2/2004	9.6	9/3/2004	35 years	Potable, operational
11367	31/05/1976 (approx.)	41.1	unavailable	None	12.5	9/03/2004	35 (1995)	Potable, Decommissioned in 2004

The bore field and storage tanks are in good working condition. There are two large storage tanks at the settlement, of approximately 23 kL and 33 kL each, providing a total water storage of 56 kL (Figure 24). The average daily water use at the settlement (including Alcoota station) during the period July 2002–March 2006 was approximately 38 kL/day, with a minimum of 5 kL/day (March 2003) and a maximum of 102 kL/day (April 2005). For a population of 135 people, this provides emergency storage of approximately 1.5 times the mean daily demand.



Figure 24: Water storage tanks

There are three houses on the settlement with working rainwater tanks. At least five other houses have the remains of rainwater tank bases and old guttering. Although low by national standards, the 230 mm/year rainfall could provide a significant supplementary water source. Most buildings could be used as roof catchments for rainwater tanks. If water scarcity were to become a future reality at Engawala, then rainwater tanks could be one possible method for mitigating this.

The drinking water quality at Engawala settlement meets Australian Drinking Water Guidelines (ADWG) chemical parameters for health at the source (Table 17). There is no disinfection process currently in use, other than remedial disinfection when necessary, but this is not cause for concern as the bore field is over 1 km to the south-east of the settlement living area and the sewerage ponds are almost 1km to the north-west.

It was not possible to ascertain the exact quantity of water used at the settlement as the settlement water supply flows recorded at the pump station also include Alcoota Station. A senior employee of PowerWater Corporation, with extensive experience of Engawala, was of the view that Engawala was a low water user, compared with other settlements.

Table 17: Key water quality characteristics

Bore	RN11363	RN16138	ADWG Guidelines
Electrical Conductivity, EC (uS/cm)	762	1190	1000 (A) *
Total Dissolved Solids, TDS (mg/L)	485	700	500 (A)
pH	6.8	7.7	nv
Hardness (mg/L)	285	398	200–500 (A)
Sodium, Na (mg/L)	61	100	180 (A)
Fluoride, F (mg/L)	0.8	0.6	1.5 (H)
Nitrate, N (mg/L)	9	16	50–100 (H)
Year sampled	2000	2000	

*(A) refers to the aesthetic guidelines of ADWG, and (H) refers to the health guidelines

Note: Adapted from NT Water Resource Protection Division, bore completion report, Engawala-Alcoota Station, 2000

It is possible to examine water use activities based on general observations. Evaporative air conditioners consume high quantities of water, when compared with the more water efficient (but energy intensive) reverse cycle air conditioners. There are approximately 17 evaporative air conditioners and 15 reverse cycle air conditioners in Engawala. Future decisions on expansion, addition or replacement of existing evaporative or refrigerative air conditioners should involve weighing up the water and energy resource implications (Duell et al. 2006). In urban settlements, outdoor/gardening use is responsible for as much as 70% of water use. At Engawala, there are few household gardens. Some shade trees are tended around homes and there is a small garden that was established some time ago around the Council office that is no longer reticulated. There are plans to grow shade trees at the old orchard site. However, such future development initiatives should consider the estimated lifespan of the water supply. Conversely, some vegetation around homes could mitigate dust in the settlement.

The sewerage system at Engawala was constructed in 2004, by connecting existing septic tanks via a Common Effluent Drainage (CED) system. The effluent is pumped through a reticulation system to open-air sewage ponds located approximately 800 m away, and evaporation (at around 3 m/year) provides treatment and removal of effluent waste. Between June 2004 and March 2006, the sewer ponds accepted between 4 and 74kL per day, with a mean daily flow of 24kL/day. On average, 60% of the water pumped from the Engawala bores ends up in the sewerage ponds. The balance goes to settlement outdoor use and Alcoota station.



Figure 25: Sewerage ponds

Although only two years since construction, the effluent ponds appear to be reaching design capacity, or are overflowing. This may be due to an increase in water usage and resultant flows to the sewer, or initial under-design. The community manager was not aware of any issues with water leakage inside houses such as broken pipes, taps, leaking cisterns, etc. It is possible that there are leaks in the underground water supply reticulation. If a source of additional water entering the ponds cannot be found, these ponds may have to be upgraded or increased in capacity to deal with the settlement effluent loads.

There is currently no charge on water and sewerage services to Engawala, however a recent decision has been made by Anmatjere CGC to introduce a weekly service charge of \$10–\$15 per adult. The settlement is growing in population and new housing is proposed. Existing housing is also being renovated, including the addition of bathrooms for those houses that previously relied on external ablution blocks. Any increase in demand will place strain on water resource sustainability and place additional pressure on the already overloaded sewerage scheme.¹⁹

2.5.5 Power supply

The settlement power station was built in 1996. It is a diesel-powered three engine station (65 kW, 75 kW, and 110 kW respectively, giving a total of 250kW) that services both Engawala settlement (Figure 26) and Alcoota Station. The power station is in good condition, considered of greater than adequate capacity and there are no upgrades currently planned. The life of the current generation plant is expected to be greater than 10 years under current population and energy consumption growth trends. The system has also been designed for reliability, with redundancies built into the design. Engines are sized to 40%, 60% and 100% of peak loads, so that if one generator goes off line, peak load can still be met. In the course of the 2005/06 financial year, Engawala used 116,785 litres of diesel to produce 383,962 kWh of energy, at a rate of 0.3 L/kWh. A kilowatt call-up system also regulates which generators go online and when, according to demand. This reduces diesel fuel consumption by selecting the most energy efficient way to meet energy demand.



Figure 26: Engawala power station

Domestic energy at Engawala settlement is accessed through the use of power cards, purchased at the settlement store. In the 2005/06 financial year, over \$20,000 worth of power cards were sold. Cards are usually purchased in \$5 or \$10 amounts. The price per kilowatt hour (kWh) is 16 c,

¹⁹ Engaging with sustainable water (and energy) demand management initiatives could also present funding opportunities to Engawala settlement, as there are multiple funding sources available for these kinds of initiatives nationally.

which equates to total settlement domestic household use of 128 megawatt hours in the previous year.²⁰ The pre-paid metered energy tariff compares favourably with standard urban home domestic energy tariffs of 14.38 c/kWh plus an additional fixed daily charge of 28.34 c/day.²¹

A recent trend is the replacement of evaporative air conditioners with reverse cycle air conditioners. This is for a range of reasons, but due in part to evaporative air conditioners being expensive to maintain due to water hardness and scaling. However, there is a trade-off, as reverse cycle air conditioners use more electricity than evaporative, and this cost will be borne by consumers through the power card system.

The local council office, school, women’s centre and other settlement facilities are billed separately and so their consumption is not captured in the power card sales. This makes it possible to approximate the average per capita energy consumption at Engawala, using the number of households and the settlement population, at 18 kWh/house/day and 2.6kWh/person/day (Table 18). On a household basis, this is slightly less than the Northern Territory average of 20 kWh/house/day.

Table 18: Settlement household domestic energy consumption

Annual settlement total domestic energy consumption (power card sales)	128 MWh
Occupied settlement houses	19 houses
Approximate energy consumption per household per day	18 kWh/house/day
Average number of persons per household	7 persons
Estimated per capita energy consumption	2.6kWh/person/day

2.5.6 Solid waste disposal

All households have two 44 gallon drums for the collection of household waste. Bins are also located throughout the settlement at facilities, including the women’s centre, store and school. The total number of bins is 54. The bins are functional and serve the additional purpose of providing an incinerator when rubbish is overflowing. The bins, however, are not fitted with a lid, and so attract vermin or dogs into the household areas.

All household and settlement waste is collected twice a week by three CDEP workers operating the settlement-owned Kubota tractor trailer, and deposited locally at the landfill site. About ten CDEP participants also work at picking up litter and raking the public areas around settlement buildings. Visitors to Engawala generally comment on its tidiness compared with other remote settlements.

The landfill is located approximately 300 m north-east of the settlement. It consists of two trenches (Figures 27 and 28) which were dug in June 2005 using equipment from Alcoota station. The capacity of the landfill is estimated to be 1182 m³, and at an estimated annual volume of 310 m³, the remaining lifespan is projected to be four years. There is no compaction, and rubbish is often burnt to reduce volume. The landfill site is semi-fenced on two sides, which limits windblown litter but is inadequate to stop vermin, dogs and children from entering the site. The landfill also contains a site for car disposal. There is no formal recycling or sorting of waste, but some building materials and car parts are reused within the settlement.

²⁰ The energy charge increased to 16.42c/kWh as of 1st July 2006, which was a uniform tariff increase across the NT for pre-payment meters. Despite price increases of US\$30 per barrel for crude oil since January 2004, this has been the first time in three years that rising diesel prices have translated to increased costs for energy services to remote NT settlement energy consumers <http://www.aip.com.au/pricing/diesel.htm> accessed August 2006.

²¹ http://www.powerwater.com.au/powerwater/customers/tariff_home_power.html accessed on August 2006.



Figure 27: Engawala landfill

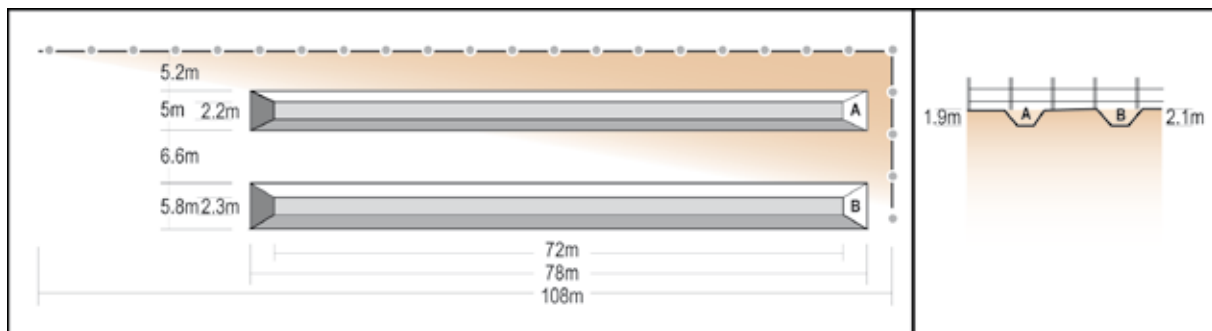


Figure 28: Schematic of landfill site

2.5.7 Information communication technologies

Engawala and Alcoota Station receive telecommunication services by High Capacity Radio Concentration (HCRC) with microwave links. The HCRC infrastructure was installed under Networking the Nation funding during 1999, which replaced the previous Digital Radio Concentrator System (DRSC) infrastructure (see Abolhasan 2005).

There are already 21 connected lines to the network which includes the phones line at the settlement and Alcoota station (Figure 29). Engawala has one payphone which is covered under the Universal Service Obligation (USO). There are private connections to the community office (5 lines), the school (3 lines), the store (2 lines), the teacher's house (1 line), the clinic (1 line), and the CDEP coordinator's house (1 line) (Table 19). Only one community member has the phone connected to their house. There is no CDMA service for mobile phone usage. In May 2006, two Community Phones²² were installed: one at the Women's Centre and the other on the side of a resident's house. The exchange has capacity for an additional 25 new phone connections.

²² The Community Phone is a device developed by CAT that uses a prepaid service to make outgoing calls and accepts incoming calls. The phone can be placed on outside

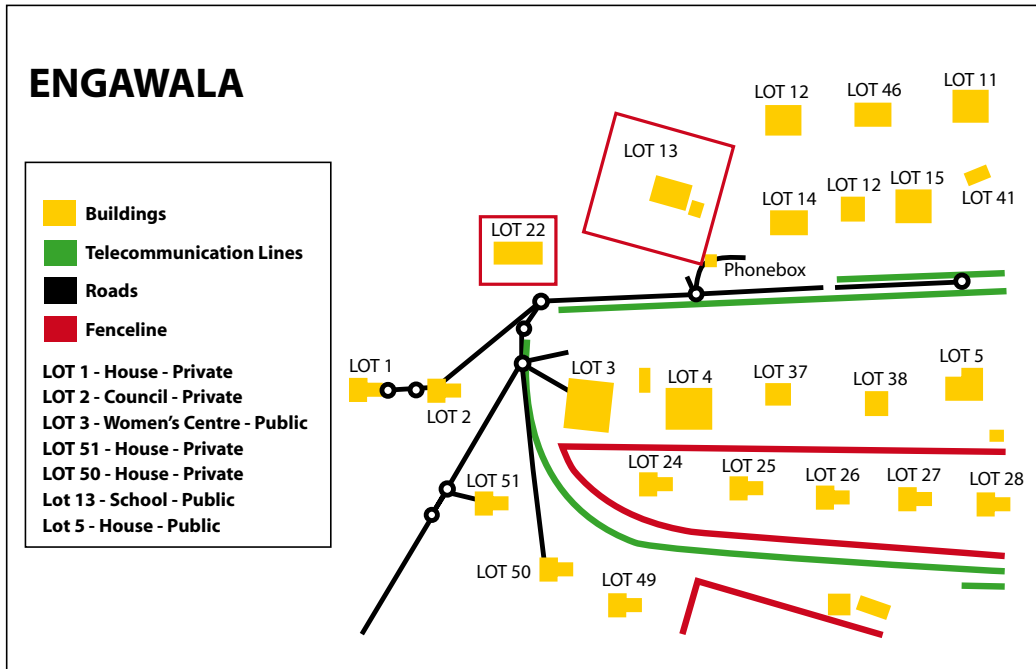


Figure 29: Cable plan

Table 19: Phone distribution

Type	Number	Service provider
Residential	4	Telstra
Business	11	Telstra
Payphone	3	Telstra

Note: One settlement house and three residences of staff members

Engawala settlement has a BRACS (Broadcasting for Remote Aboriginal Communities Scheme) transmission station which was installed in 1997. The station is monitored by PAW Media (Pintubi, Anmatjere and Warlpiri) and the equipment is the responsibility of Anmatjere CGC. The transmission allows TV (5 channels) and radio to be transmitted across the settlement.

Local content is not currently broadcast, but this could be arranged if necessary. PAW Media could help with training of local people (who would need to travel to Pmara Jutunta), with the purchase of equipment, and with securing the license.

There is no central facility for general communal access for computers or internet. A small number of current residents have access to computers through the school. Table 20 presents a list of the computers at the settlement and their accessibility.

of building or in a cabinet. This type of phone is currently not covered under the USO.

Table 20: Computer access at Engawala settlement

	Number of computers	Service	Connected to internet	Accessibility	Future computers
Community Council	1	Broadband through 2-way satellite	Yes	Computer is used by CDEP coordinator	n/a
School	8	Broadband through 2-way satellite	4 connected to internet 4 not connected	Accessible to school children and staff	4 new computers (Sept 06) 2 laptops (Sept 07)
School House	1	Broadband through 2-way satellite	Yes	Used by teaching staff	n/a

2.6 Summary

Towards the end of the study, participants at a workshop were asked to make subjective assessments of the relative strengths of their five different types of assets, by drawing the asset pentagon for Engawala (Figure 30). The research team then assigned the following simple ascending 1-5 rank scores, based on the distance drawn from the centroid of the pentagon.

Natural Capital	4
Social Capital	4
Human Capital	3
Physical Capital	3
Financial Capital	2

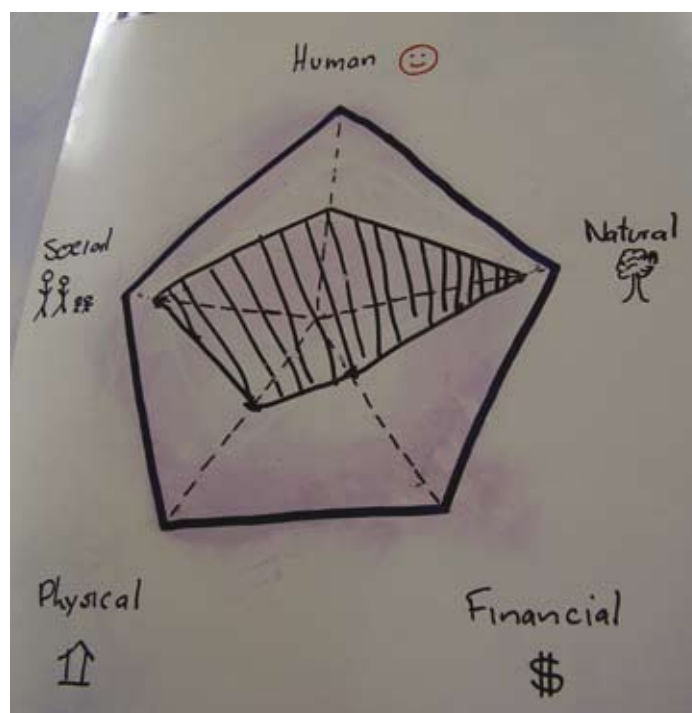


Figure 30: Asset pentagon for Engawala

This assessment by the community largely matched the assessment of the research team. Relative to other settlements known by the authors, the quality of physical assets in Engawala in terms of housing and infrastructure is comparatively high, but due to tenure restrictions, their economic value as assets is limited. Nonetheless, they are still central to most livelihood strategies. While not transferable to cash, the recent use of underutilised space at the Council Office, including the establishment of a preschool, is an example of their utility towards achieving livelihood strategies. When three houses were renovated in 2006, families were similarly accommodated in other settlement houses.

Despite the high levels of funding allocated to Engawala, only a small proportion of this reaches household incomes, since only one local resident is in full-time employment. There was a high turnover of weekly payroll of CDEP and welfare payments, primarily for the purchase of food and other basic necessities. There was little savings, other than that owed informally by kin. Human capital was low, due to low education and training levels, related to the lack of employment opportunities.

The most readily available forms of capital, in terms of accessibility and transformability, were social and natural capital. These form the largest asset base from which people can draw towards sustainable livelihood strategies. The ability of people to draw on the asset base towards achieving livelihood strategies is given detailed consideration in the remaining two sections.

3 Adaptation of the SL Framework to Engawala

Beyond the asset pentagon described in the preceding section, the research team found limitations to the DFID SL Framework (Figure 31) in its application to Engawala, which led to the development of a modified Framework (Figure 32). By way of introduction, the original and modified frameworks are given in the following two figures.

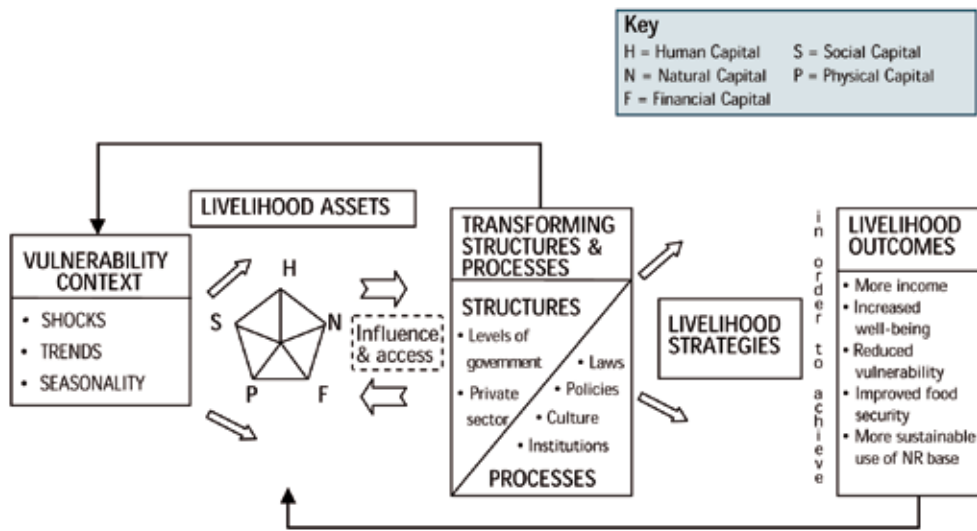


Figure 31: The original DFID SL Framework

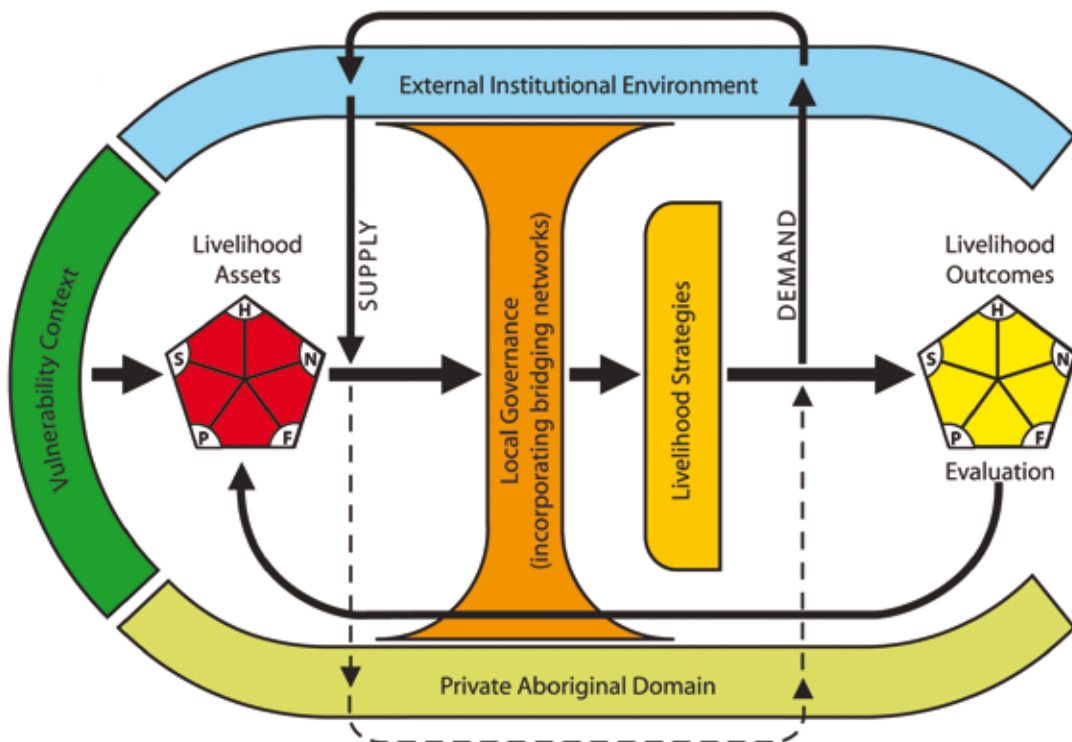


Figure 32: The modified SL Framework

As an introduction to the Framework, each of the elements is described briefly below. A more detailed description then follows through the rest of the section.

1. *Vulnerability context*: This element covers all negative impacts and worries that a settlement/household may have, including threats.
2. *External institutional environment*: This element of the framework reflects the decisions made outside the settlement which impact on the settlement and/or households or individuals. While it is primarily concerned with the changes in Aboriginal Affairs policy and programs, it also reflects other mainstream changes in the justice system, law, educational systems, etc. Its affect on people can be described through a simple abstraction to the weather.
3. *Private Aboriginal domain*: This element acknowledges the powerful role of culture (present in all the elements), privacy and Aboriginality in the sustainability of livelihoods for individuals, households and communities. It is not a space or domain that can necessarily be ‘known’ or indeed manipulated by any one party, but it is the arena from which the people come to work with the other elements.
4. *Livelihood asset pentagon*: This pentagon is the starting point for the framework when working with communities. Participants use the pentagon to describe all five different types of assets owned by a settlement or a household: social, financial, natural, physical and human. The pentagon provides a graphical representation of how the strength of these assets relate to each.
5. *Livelihood strategies*: Livelihood strategies are the activities (such as projects, trading, employment and training) that people do to build on or transfer their assets base.
6. *Livelihood outcomes/evaluation pentagon*: This second pentagon reflects on where the community has come to with livelihood strategies and provides a point for evaluation and feedback within the process.
7. *Local governance (incorporating bridging networks)*: The local governance element refers to formal and informal decision-making practices and protocols at the local or regional level, and is largely based on relationships that form among residents, leader, settlement staff and outside employees. This element refers to how the community gets organised to prioritise and work on livelihood strategies to achieve outcomes. It bridges between the external institutional environment and the private Aboriginal domain.
8. *Supply and demand arrows*: These arrows directly relate to the institutional environment. The ‘supply’ arrows represents how external policies and programmes influence remote communities (Moran 2007); however, communities are in a better position to influence the external institutional environment when the service system responds to demands from the residents, as represented by the ‘demand’ arrow.

The different elements can be considered in two different categories: context and instrumental action. *Vulnerability context*, *external institutional environment* and *private Aboriginal domain* set the context through which sustainable livelihood strategies must be framed (Figure 33). The remaining elements represent the line of action from assessing the asset base, through organising constructive effort, towards achieving sustainable livelihood outcomes (Figure 34).

The arrows in the framework reflect a linear and cyclic process. The linear process being: livelihood assets combined with local governance and livelihood strategies lead to livelihood outcomes. The cyclic process is reflected by the arrow in the bottom half of the diagram that implies that the model is not static but is changing with time. A second feedback loop operates between the supply and demand for services. Each of these elements will now be examined in turn.

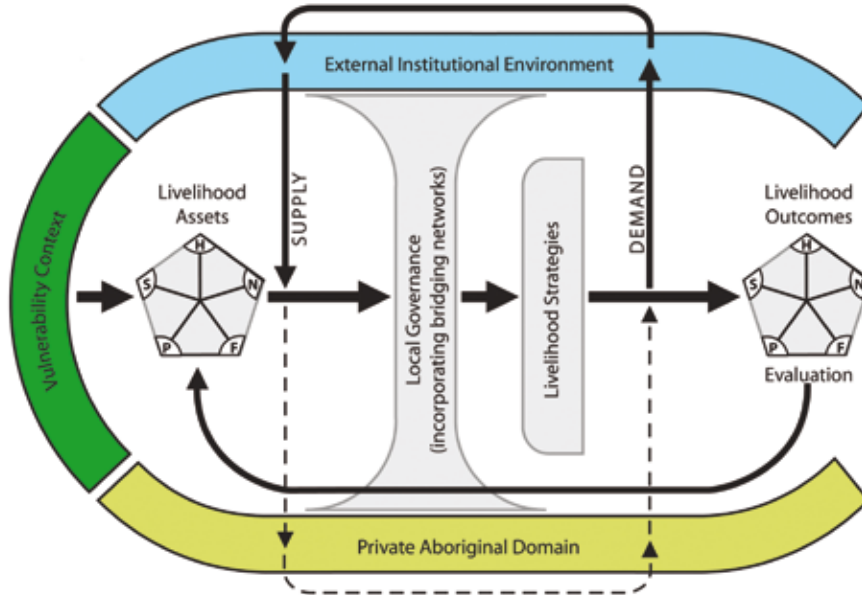


Figure 33: Contextual elements of the modified SL Framework

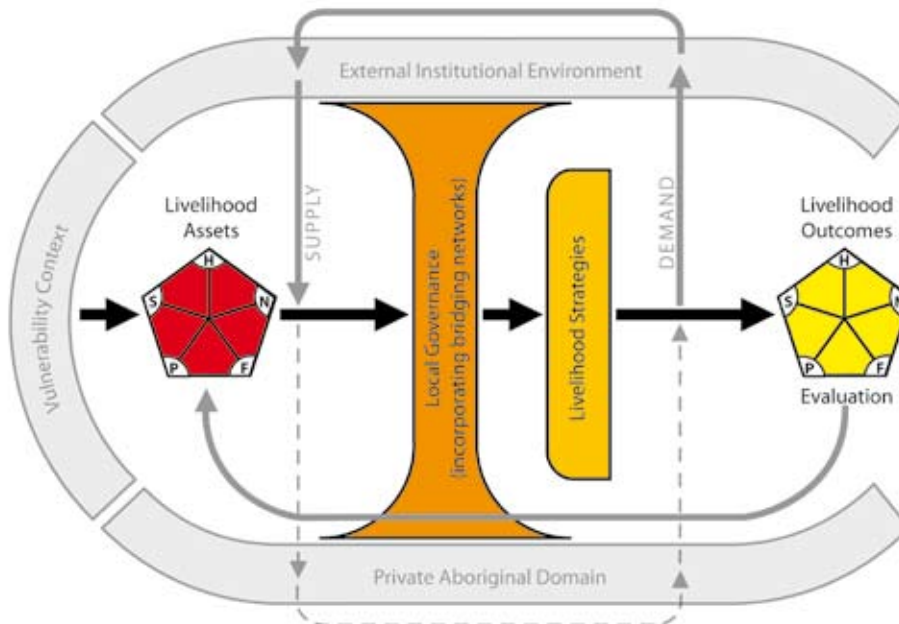


Figure 34: Action-orientated elements in the modified SL Framework

3.1 Vulnerability context

As previously defined, *vulnerability* is insecurity and sensitivity in the wellbeing of individuals, households and communities in the face of a changing environment, and, implicit in this, their responsiveness and resilience to risks that they face during such negative changes. Environmental changes that affect welfare can be ecological, economic, social and political, and they can take the form of sudden shocks, long-term trends, or seasonal cycles (Moser 1998, 3).²³ Under the SL Framework, the factors that make up the *vulnerability context* are important because they have a direct impact on people’s asset status and the options that are open to them in pursuit of beneficial livelihood outcomes (DFID 1999–2001, 2.2).

People in developing countries often live precariously, with little cushion against the adverse effects of trends and shocks which can make their livelihoods unsustainable. Under the SL Framework, reducing their vulnerability to the *downside*, grounded to ways of strengthening their current asset base, sets the context for developing livelihood strategies. This is in contrast to ‘classical’ participatory planning exercises which seek to maximise the *upside*, often with insufficient consideration of people’s prevailing vulnerability and assets at their disposal.

Given its centrality to the SL Framework, the research team sought to understand people’s perceptions of these vulnerabilities. It was immediately apparent that the types of vulnerabilities experienced in villages in developing countries, as encapsulated by the SL Framework, had little relevance to Engawala (e.g. war, crop failure, commodity price fluctuations, etc). The researchers drew up a different list of potential vulnerabilities for discussion (Table 21).

Table 21: Potential factors for vulnerability as identified by the research team

Trends	Shocks	Seasonality
<ul style="list-style-type: none"> • Young people leaving Engawala • Relatives moving to Engawala • Economic trends (e.g. oil prices) • Government politics and policies (e.g. CDEP) • Technological changes • Chronic diseases • Substance abuse • Droughts • Decline of underground water supply • Changes to land rights • Mismanagement by outside employees (e.g. community manager, station manager) • Ongoing change in constitution • Climate change 	<ul style="list-style-type: none"> • Community conflict • Death of a leader • Technology failure • Storms, floods • Epidemics • Large influx of people • Withdrawal of grant funding • Nuclear dump site 	<ul style="list-style-type: none"> • Of commodity prices • Of vehicle access • Of employment opportunities • Of rainfall, wildlife and other natural assets

Generally, the discussion with Engawala leaders about the vulnerability of their livelihoods proved difficult. People were not used to being probed by outsiders on the potential downside, in comparison with the usual and more ‘upbeat’ discussions around maximising the upside. In some cases, people were reluctant to discuss past vulnerability events, due to their negative and at times sorrowful memories. Some aspects of vulnerability drifted into private aspects of the Aboriginal domain, which people were reluctant to discuss.

²³ Not all environmental trends are negative or cause vulnerability. For example, economic indicators can move in favourable directions, policy change can lead to new services, and new technologies may be very valuable to Aboriginal people.

Notwithstanding these limitations, people seemed either detached or unconcerned about the impact of most of the vulnerability factors listed above. In the event of the water supply running out, people knew of alternative soaks, which were adequate for drinking purposes. One leader advised that they could leave Engawala for a time, and then come back after the aquifer had recharged. In the event of the non-Aboriginal manager leaving (as occurred during the study period), leaders advised that they could run Engawala themselves, or wait until a replacement manager arrived.²⁴ At the time of the study, there was a proposal to build a nuclear dump site just south of the settlement. Engawala leaders participated in campaigns against it with the assistance of Central Land Council and Arid Lands Environment Centre. This advocacy process was, however, largely driven by people from outside of the settlement.

People did express their vulnerability around social problems, especially in terms of youth. People were well aware of the social problems that beset other settlements, such as petrol sniffing and violence, although these were not yet prevalent in Engawala. There was a strong aspiration for ‘things for young people to do’, which was partly borne out of concern that youth related problems in other settlements might spread to Engawala. This aspiration was related to a concern about young people leaving Engawala, which can also be considered as a vulnerability to the long-term sustainability of the settlement. This community concern is supported by recent quantitative modelling of intra- and inter-settlement interactions which suggests that interaction with urban centres disrupts norms used in resolving local social dilemmas (Maru et al. 2007).

Significantly, people strongly expressed their concern over the major changes underway to government policy and services. During the study period, their concern was focused on changes to the Community Development Employment Projects (CDEP), and eligibility for unemployment benefits, due to their potential to reduce household finances. Other changes taking places were modifications to the Northern Territory land rights legislation, changes in the trust arrangements for Alcoota Station, and reform of the NT local government system. The potential impact of these changes to the lives of Engawala people remain considerable, yet people were struggling with inconsistent and changing information on what these changes involved. Few departmental officers visited Engawala to explain the changes, and in the demise of ATSIC, people were unclear of who represented their views to government.

It is clear that people at Engawala have an entirely unique *vulnerability context*, compared with that described under the SL Framework for international development settings. The relationship to the *external institutional environment* (see following section) has a heightened importance, and vulnerability to other environmental factors is reduced (e.g. war, disease, crop failure, commodity price fluctuations). The basic needs of people in Engawala (housing, water supply, food, income, etc.) are met by the Australian state. Vulnerability in Engawala is therefore inseparably intertwined with government-backed funding and services.

This might help to explain the detachment observed among Engawala people to potential vulnerabilities related to government. Since many of the changes proposed by governments take time to become reality, or sometime never eventuate, a sensible strategy is to wait until things actually eventuate; until their true nature becomes apparent. This ambiguity understandably leads to a more reactionary approach, rather than proactive planning to mitigate potential vulnerabilities to policy changes.

²⁴ The average length of stay of CEOs in the Northern Territory has been reported to be of the order of one year (Smith 2004, 6)

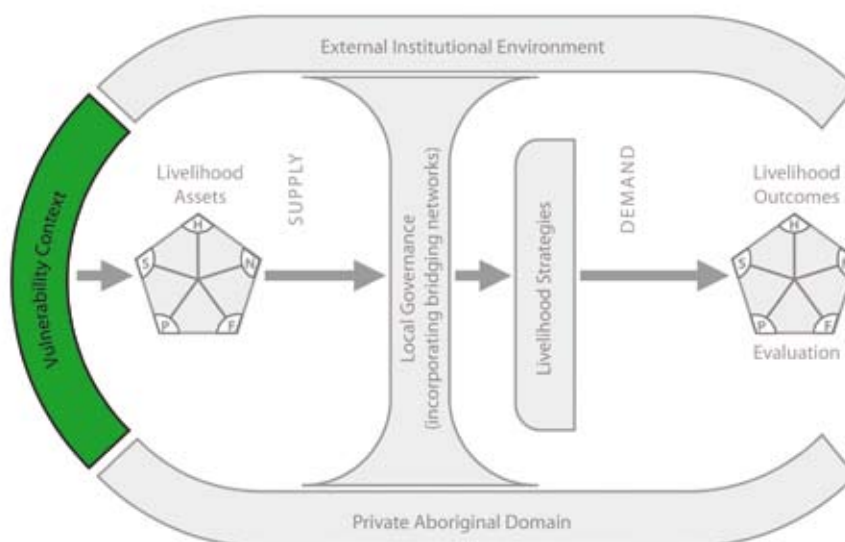


Figure 35: Vulnerability context in the modified SL Framework

The research team were concerned that the above findings on vulnerability may have been unique to Engawala, due perhaps to the less apparent social problems there compared with other settlements. Towards the end of the study, similar discussions were held with a smaller outstation settlement in central Australia. A similar account of vulnerability emerged, both in terms of changes to government policy/services/funding, and concern for elders passing and younger generation’s loss of connection to country. Interestingly, people raised the need for improved two-way flow of information between government and the community, to understand changes in government, but also for government ‘to hear our story, to see our story.’

3.2 External institutional environment

The box situated to the right of the asset pentagon in the original DFID SL Framework (Figure 31) is *transforming structures and processes* (TSP), defined as the ‘institutions, organisations, policies and legislation that shape livelihoods’ (DFID 1999–2001, 2.4). *Structures* are related to service providers, including government, commercial companies, civil society and non-government organisations. *Processes* are policies, laws, institutions, culture, and power relations. This box of the SL Framework covers a daunting range of factors, said to operate across ‘all levels, from the household to the international arena, and in all spheres, from the private to the most public’ (ibid). This box seems to represent everything impacting on livelihoods which cannot be classified according to the five assets.²⁵

In an Australian Aboriginal context, *structures* should be expanded to include the complex institutional power relationships of the nation state, including government, but also media, labour unions and professional associations. There is also an institutional hierarchy of Aboriginal governance operating at different scales, including other Aboriginal settlements and regional Aboriginal organ-

²⁵ The TSP box is otherwise understood in the literature as *policies, institutions and processes* (PIPs). This shift in terminology was also adopted by DFID itself, over the years it took to finalise the set of guidance sheets (DFID 1999–2001, 4.11). Seemingly, this part of the SL Framework was the least developed at the time when it first promoted. Carney (2002, Appendix 2) described multiple methods that practitioners have adopted to gain a deeper analysis of TSPs or PIPs.

isations (e.g. land councils, regional media organisations, CDEP providers). Similarly, *processes* should be extended to include the national economy, standards, social justice, equity and best practice. Compared with international settings, there is also a larger number of services, covering most aspects of life, including housing, water, telephones, power, roads, rubbish, health, education, banking, police, justice, aged care, sports, unemployment, child protection, and welfare.

In light of the analysis at Engawala and an Australian literature on localism (Martin 1997; Holcombe 2004), there is clear separation in the perceptions of Engawala people between what is local and what is external. Applying this same simple dichotomy, commentators have described the external bundle of policies, institutions and services which collectively define the workings of power in the Australian state, as the ‘external institutional milieu’ (Moran 2006a) or the ‘governance environment’ (Smith 2005). For the purposes of the modified SL Framework, the bundle has been described as *external institutional environment*.

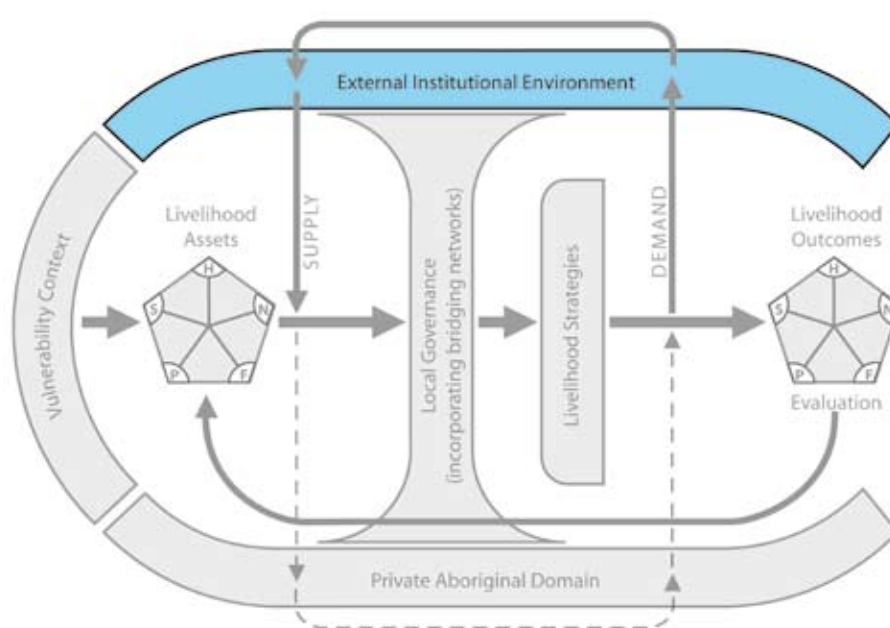


Figure 36: External institutional environment in the modified SL Framework

In an Australian context, the *external institutional environment* is largely supply driven, based on external conceptualisations of social problems and needs. Policies and programs are forever expanding and undergoing reform, based on new supply-driven solutions which are seldom informed by consumer perspectives or even internal evaluations against policy goals. This has led to a fragmented institutional environment, characterised by increasing regulation and escalating costs, driven by standards and economic benchmarks originating in coastal cities (FRDC 1994). The policies, programs, rules and personnel operating in this sphere are constantly changing. New conceptualisations of the ‘problem’ by government result in new programs. New initiatives to devolve more ‘self-governance’ result in more external requirements for accountability. The rate of launching new programs exceeds the closure of old, resulting in an annual increase in the complexity of the system, and the quantity of administration to be processed (Moran 2006b).

Despite being supply driven, it is necessary to highlight the significance of the *external institutional environment* to livelihoods. What is possible at the local level is powerfully determined by the opportunities, constraints and space permitted by this external system. For example,

government-backed services create physical assets through funding for public infrastructure and housing. Legislation determines access to assets through setting ownership and land rights. Policies influence the rates of asset accumulation through taxation and restrictions on commercial enterprises. Service providers build assets through education and health services. Laws help protect the natural environment. Welfare programs and grants provide almost all of the financial transfers that take place.

The heightened role of the state in Australia, in comparison with developing world contexts, is supported by studies that have tried to apply the SL Framework to poor settlements in the United Kingdom. When Korf and Oughton (2006) applied the SL Framework to rural areas of north England, they found that the Framework did not sufficiently reflect the effects of power and structural processes operating at larger scales. Hocking (2003, 240) similarly described the limiting impacts on livelihoods resulting from the national security system in the UK, ‘with its conditionality enforced through a myriad of rules and regulations.’²⁶

The study did not include a comprehensive investigation of the *external institutional environment*. Its many elements collectively form a complicated and fractured system of economic arrangements, political processes, institutions, norms, values and social relations that operate in the wider world. As noted by Ortner (1984), an investigation of practice has ‘no need to break the system into artificial chunks like base and superstructure, since the analytical effort is not to explain one chunk of the system by referring it to another chunk, but rather to explain the system as an integral whole by referring to it in practice.’ The *external institutional environment* is therefore understood to the extent that Engawala people interact with it in day-to-day practice.

Despite its pervasive characteristics, the *external institutional environment* does not totalise or immobilise practice, and there is still considerable room in the system for leaders to manoeuvre. Its effect on people can be described through a simple abstraction to the weather. People may have little control over its effects, but have learnt to ‘make hay while the sun shines’ and to ‘bunker down’ when storms appear on the horizon.²⁷

In the SL Framework, it is assumed that the *external institutional environment* is somehow manipulable, a means to an end, towards livelihood strategies and outcomes. In an Australian Aboriginal context, where policies, institutions and processes are largely supply driven, the external institutional environment is not readily manipulable by the residents of remote settlements, and only to a limited extent by NGOs and regional Aboriginal organisations that advocate on their behalf. If it is not readily manipulable, then it cannot be used as constructively as a means to achieve livelihood strategies. While it is a critical component in the SL Framework, it is better positioned in a box above the asset pentagon, and thus not in a direct line between assets and livelihood outcomes.

This is not to suggest that the *external institutional environment* is beyond influence, that it is not changing, and that people and organisations cannot become effective agents of change; rather, that the advocacy and other process used to affect such change are different from the daily decision-making processes that the SL Framework is primarily concerned with. The SL Framework takes a pragmatic and positivist stance to the constraints faced in remote Aboriginal settlements. It assumes that the path to self-organisation and adaptation to a complex system can be found by focusing on the internal assets which are readily manipulable towards livelihood outcomes. When there

26 The study by Hocking (2003) resonates with the Australian welfare system, whereby savings (or lump-sum royalty payments) must be below a certain level before one becomes eligible for income support or Newstart allowance. Under the new CDEP changes sweeping central Australia, recipients will similarly be ineligible if they earn more than preset limits.

27 By way of example, the availability of funding from ATSIC resulted in a proliferation of community organisations across Australia through the 1990s. Many of these organisations still persist, despite a major policy shift and a countervailing process to centralise funding and service provision.

are tangible outcomes from successful local practice, these can be promoted externally as ‘best practice’ with the intent to change the system. The authors of this report hope that this study might have such an impact.

The extent to which the *external institutional environment* is subject to influence is through the networks maintained with individuals in the system, and the extent to which locally representative leaders and organisations are able to interact with the system. This category of bridging *networks* and organisations has been considered separately, under *local governance* (see Section 3.3), which effectively represents a bridge between the local Aboriginal domain and the *external institutional environment*. For the purposes of a modified SL Framework for practice, it is important to make a clear distinction between the networks and organisations which are able to be readily manipulated locally, and those that are beyond effective local control.

3.3 Social capital and local governance

To apply the SL Framework to Engawala, and in particular the asset pentagon, it was necessary to refine the notion of *social capital*. The different meanings assigned to social capital are described in detail in Section 2.2, but to summarise, there are three different types of social assets that people can draw upon in the pursuit of livelihood strategies: (1) vertical and horizontal networks: (2) membership of formal organisations, and (3) informal relationships, trust and reciprocity.

The scope of these social assets and their relative importance proved to be too great to be combined under the single banner of social capital; the combination of internal and external networks resulted in a confusing conflation of private and public relations, and informal and formal organisations. People in Engawala do not equate the internal networks, on which kinship reciprocity is based, with the external networks of formal organisations, government workers and non-Aboriginal employees. It became necessary to narrow the notion of *social capital* to kinship, reciprocity and informal networks operating in the local community domain. The formal aspects of organisations and bridging networks were then separated into a new category called *local governance*.

There is a wealth of anthropological literature which describes kinship and social interactions across Aboriginal cultures, including the acquisition and exchange of assets. Peterson (1993) described the interdependence of ‘demand sharing’ and social interaction in Aboriginal societies. As Martin (1995, 9) elaborates, when making a demand:

... an individual is asserting their personal right (as a son, an aunt, a clansman and so forth) to a response from others, but is also acknowledging, and thus through their actions substantiating, their relationship with the other person ... goods are thus ‘decommodified’, that is, incorporated into the Indigenous domain in which their values were not determined primarily as commodities within the market system, but in their capacity to sustain and inform social relations.

Arguably, these kinship networks are the most available asset for Engawala people to overcome vulnerability in times of need, since norms of reciprocity and exchange permit flows in both directions. Gifts of money, food and other comforts to kin, family and friends, are like deposits of social capital, from which one may later draw. Discussions around social capital at Engawala were inexorably drawn to these internal kinship networks. In the interest of clarity and ease of practice, the research team decided to narrow the definition of social capital accordingly: to internal, informal and horizontal networks.

This conceptualisation is consistent with the work of leading researchers in the field. Robert Putnam (1993), who was involved in the early development of the concept of social capital, stressed the importance of localised horizontal linkages, over vertical hierarchical linkages. In a comprehensive review of the concept as it evolved in the years after Putnam's original treatise, Woolcock and Narayan (2000, 226) took a similar view.

This should not negate, however, the understanding that most of the interactions occurring across the Framework, especially networks with service providers, are strongly mediated on the strength of social relationships, which themselves are types of social assets. These *bridging networks* are best considered separately, under the category of *local governance*. Local governance then encapsulates the *bridging networks* and formal organisations that come under local influence, distinct from the networks and informal institutions operating in the Aboriginal domain, and distinct from the external networks and immutable processes operating in the *external institutional environment*. Given the dominance of the *external institutional environment* over resources, these *bridging networks* take on a heightened significance in Aboriginal settings.

In terms of the actors engaged in *local governance*, the 'local/external' distinction between *local governance* and *external institutional environment* is not entirely clear-cut. Proximity to the locale is clearly a strong determinant of the extent to which actors are subject to local influence. Nonetheless, some local employees of government departments retain an ambivalent distance from the Engawala settlement, while some senior departmental officers in Alice Springs have shown considerable responsiveness to local concerns (see Section 2.2).²⁸ Similarly, the distinction between *local governance* and *private Aboriginal domain* is also not clear-cut. The capacity of local leaders to participate in local governance is strongly related to their status which is bestowed on them by culture and tradition (Myers 1986). In seeking resources from the state, Aboriginal leaders are often acting in political ways to strengthen their position in the local polity, often through being seen to support cultural practices (Gerritsen 1982).

In its broadest sense, governance involves the interactions among actors, structures and traditions that determine how power is exercised, how decisions are made locally, and how citizens participate (after Plumptre and Graham 1999, 3). Fundamentally, it is preoccupied with decision making in dealings with the outside world, as largely defined by relationships between Engawala people and trusted outsiders. In terms of the SL Framework, *local governance* is defined here as the local organisations, administration, procedures, rules and bridging networks that people can access and manipulate in order to achieve their livelihood strategies and outcomes.

This 'blurring' is indicative of the complexity of the intercultural field, where actors from both Aboriginal and non-Aboriginal domains interact in the business of administrative decision making: what Holcombe (2005, 222 & 226) described as a shared hybridised 'third space'. Accordingly, it is useful to depict *local governance* as bridging from the *external institutional environment* to the *private Aboriginal domain*: thus effectively spanning the intercultural field (Figure 37).

²⁸ To assist in making this distinction, the research team found it useful to speak of governance in terms of 'inside services', and 'outside services'.

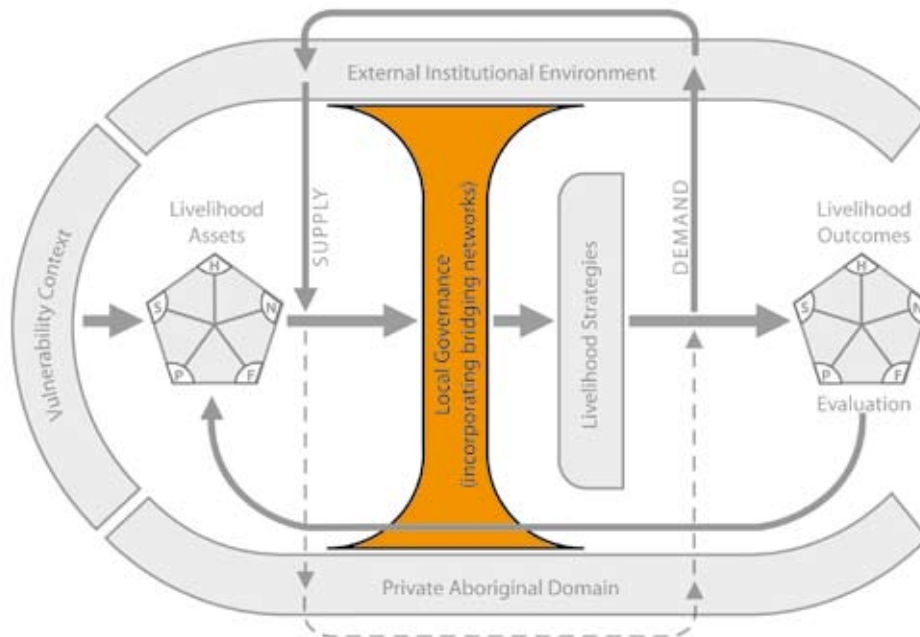


Figure 37: Local governance in the modified SL Framework

Under the changes proposed in the study, the elements in the ‘Transformative Structures and Processes’ (TSP) box in the original DFID SL Framework (Figure 31) has effectively been split into three: *external institutional environment*, *private Aboriginal domain*, and *local governance*. Of these three, local governance is the most readily manipulable by decision-makers towards achieving livelihood strategies and outcomes. It is therefore best depicted diagrammatically in the original position of the TSP box, in direct line between assets and livelihood strategies.

Given the extent of reliance of the settlement on the state for most resources, especially relating to physical and financial capital, effectiveness in enhancing livelihoods requires competence to manage relationships and transactions across these bridging networks. The conditions under which service providers and consumers achieve successful practice are an important source of enquiry, which will be investigated further in ongoing research (Moran 2006b).

3.4 Culture and the private Aboriginal domain

The research team devoted considerable effort on how best to treat ‘culture’ within the Framework. In the current political environment of Aboriginal Affairs, the notion of culture has become highly politicised to the point of distraction. Depending on the normative positions of different proponents in this debate, culture can be understood as an asset, a liability, a context, something that has to change for Aboriginal survival, or something unique to be protected and preserved. For the Framework to be an effective model of practice, it is important that such political associations do not distract participants and practitioners from the task of achieving sustainable livelihood outcomes.

The critical questioning of culture is consistent with a rising academic debate in Australia on modernity and the urgent need for cultural change in Aboriginal societies (e.g. Sutton 2001).²⁹ Aboriginal leaders such as Noel Pearson (1999) and Rose Kunoth-Monks³⁰ recognise the need for cultural change, but they acknowledge the importance of a strong and distinctly Aboriginal culture and identity, one that is adaptive, robust and multi-dimensional. They argue for a duality in capacity in both Aboriginal and non-Aboriginal domains, and the intercultural spaces in between. As argued by Noel Pearson (2005), biculturalism should not be seen as a loss in culture, but rather as a predicator of cultural survival.

The research team were positioned subjectively relative to this debate, so it is instructive to describe the process followed in reaching a consensus. The team first considered whether to categorise culture as an asset, initially through changing the name of ‘social capital’ to ‘socio-cultural capital’. This seemed a sensible choice, since the notion of social capital advanced by this study is inseparably intertwined with acquisition and exchange across kinship networks. But culture is also inherently integral to other capitals, including natural capital (e.g. bush foods, tourism) and human capital (e.g. Aboriginal art). The team then considered whether it should be elevated to a sixth and independent category of assets titled ‘cultural capital’, as argued by Bebbington (1999, 32) and Throsby (1999, 3). But problems arose with the extent to which culture could be considered as an asset independently of the other capitals.³¹ While culture is an asset, it seemed integral to most of the other assets.

Under the original DFID SL Framework, culture is categorised under ‘transforming structures and processes’, as a transforming process. Culture is understood as ‘widely recognised hierarchies of power relations that confer a particular status on people and constrain their behaviour and opportunities according to factors that are essentially out of their control (age, gender, etc.)’ (DFID 1999–2001, 2.4.2). The interesting part of this definition is the association to factors beyond people’s control. In the course of using the Framework to develop a sustainable livelihood strategy, culture may indirectly be ‘placed on the table’, mainly in the context of particular practices which are restrictive; for example, women not driving, different ways of raising boys and girls, and the relative acceptability of violence. Yet while they may be discussed, these factors are not readily manipulable by the practitioners of the SL Framework. Limitations of scale become immediately apparent, since culture operates at a household, settlement, language group, or even higher national scales of ‘Aboriginality’. By way of example, a strong group of matriarchs determined to tackle the problems of household overcrowding can lobby Council for the renovation of derelict houses, or arrange for families to relocate between existing housing units, but they have limited ability to stem the influx of visitors from other settlements. So while intrinsic to several of the capitals, culture is also a context, which defines a complex set of constraints and opportunities, similar in this regard to the *external institutional environment*. This is consistent with a model developed by the Cape York Institute (2005, 7), which placed ‘culture’ as one part of the ‘context’, together with the ‘policy environment’ (Figure 38).

29 Through 2006, an emotional debate occurred in the media on what practices are actually sanctioned by customary law, largely in the context of child abuse and domestic violence.

30 Speech given at Desert Knowledge Symposium, November 3rd 2006, Alice Springs <http://bulletin.ninemsn.com.au/article.aspx?id=158527> accessed December 2006

31 If culture was included as an independent capital, participants would most likely consistently score its value as very high, regardless of its utility as a capital for transformation toward livelihood strategies.

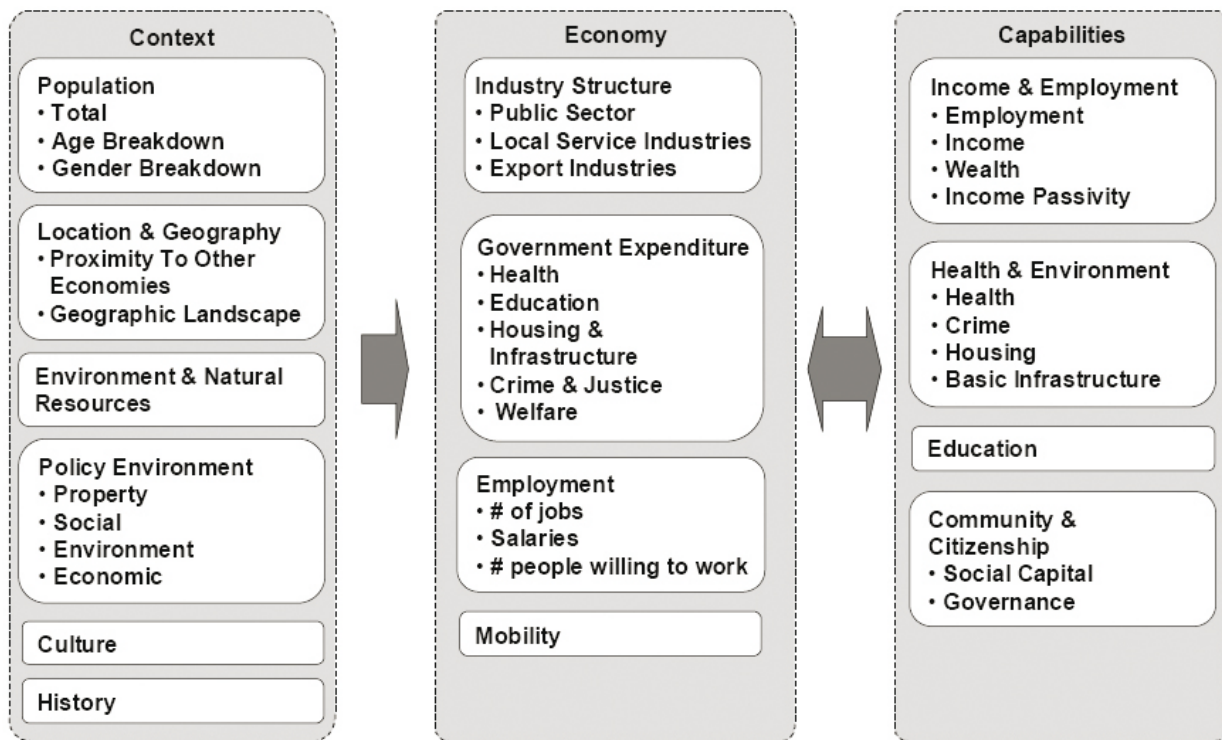


Figure 38: Cape York Institute economic model

Given the current debate on the relative importance of culture, it is important to be very clear on this point. To state that culture is contextual and not readily manipulable to the participants and practitioners of the SL Framework, is *not* to suggest that culture is not changing, that it cannot be changed, that it should not change, and that people and collectives are not agents of change. The activities and strategies to emerge from the SL Framework can have an impact on culture, but only indirectly, over a longer time frame, and together with a multifarious range of other factors and processes. The suggestion that culture is something that can be altered by choice, in the way that it is possible with business culture, understates its scale and resilience. Culture is as much what people are, as what they do. It includes the norms, traditions, knowledge, activity, symbolic structures and beliefs which encapsulate Engawala society and beliefs. Culture is central to all life in Engawala, transcending the realm of human, social, financial, physical and natural assets, and the types of interventions that the SL Framework seeks to facilitate. It operates on a scale and timeframe that goes beyond what community decision-makers can seek to achieve in the course of short- or medium-term projects possible under the SL Framework.

The researchers decided against promoting a position that encouraged practitioners to ‘facilitate’ cultural change, or for them to delve into what may be construed as private areas of community life. As argued by Bebbington (1999, 32), making the ‘role, importance, and potential loss’ of culture ‘explicit in narrative form remains critical if our external notions of poverty are not to be divorced from rural peoples’ conceptions.’ Cleaver (2002) similarly stressed that ‘livelihoods are not simply technical and economically rational sets of survival strategies but are clearly linked to ideas about a desirable way of life, to practices in relation to resources, to other people, and to aspirations that are heavily loaded with symbolic meaning.’ Engawala people are the expert witnesses of their own conditions, and are well aware of the cultural changes that have occurred in their life, and know that change will continue throughout the lives of their children. It is important

that practitioners understand and respect that when Aboriginal people participate in the discourses and forums that accompany the SL Framework that people are ‘travelling’ from an inherently local and private place.

The researchers concluded that it was not possible to separate or categorise culture as an asset, since it was intrinsic to most of the five capitals, and nor could not be easily separated out as an independent category of asset. It was best considered as not being readily manipulable to the practitioners of the SL Framework, but rather a context which determined constraints and opportunities on behaviour. In the end, the researchers decided to not directly state the term ‘culture’ any way in the modified SL framework. In terms of the utility of the Framework in practice, the ongoing debate on culture has considerable potential to distract from the practical determinants of achieving sustainable livelihoods. It was decided to rather introduce the notion of the *private Aboriginal domain* instead, which embeds notions of culture, community and privacy.

The concept of domains was developed in linguistics to describe the distinct practice of speaking to the world through language: it has connotations of culture, physical space and the way things are done. Aboriginal and non-Aboriginal domains both encompass and penetrate discrete Aboriginal settlements, due to the different cultures and unequal power relationship between the two. Domains do not necessarily have a permanent spatial basis, or their spatial basis may shift with time. In a study of the discrete settlement of Milingimbi in Arnhem Land, for instance, the non-Aboriginal domain was described as the cash economy and modern technology, which operated from 8am to 5pm on weekdays. The Yolngu domain operated after hours and on weekends. Here vernacular language was the norm, the Aboriginal worldview and social priorities reigned, and those of the other domain were virtually non-existent (Harris 1980, 132).

Trigger (1986, 14) similarly found the notion of domains useful in describing the resistance of Doomadgee people to the mission’s attempts to transform their culture. Aboriginal domains in Doomadgee came into existence through people actively seeking to insulate their thought and behaviour from the non-Aboriginal domain. Trigger gave examples of Aboriginal people temporally restricting their behaviour (in what was normally the Aboriginal domain of the village) during an open-air Christian meeting, or when a visiting non-Aboriginal person performed an administrative task. Doomadgee people understood the spatial order of the mission in terms of places where thought and behaviour were either expressed, or sheltered, from non-Aboriginal scrutiny and correction.

Consistent with its widespread use in the anthropological literature, this study has understood domains in the sense of different ethnic and socio-economic systems; that is, a two-part contrast between the Aboriginal and non-Aboriginal domains, with the shared domain of an intercultural field running between. For this study, domains are understood in the particular sense of decision-making and interactions with the outside world. The intercultural field does not have a strict spatial basis; it exists wherever the actors of local decision-making interact. Nor does the intercultural field have its own culture, social norms or administrative rules. It is a place where new forms of power, knowledge and organisation are emerging. It is mediated mainly by leaders, employees and external stakeholders who collectively negotiate its ambiguities, indeterminacies, dialectical tensions and intercultural dilemmas. People from both cultural systems work and learn in this setting and effectively travel to this place from their own world view.

Similar to *external institutional environment*, the *private Aboriginal domain* is proposed in the modified SL Framework as a separate category which underpins the whole Framework (Figure 39). Depicting the *private Aboriginal domain* as a separate category proved conceptually useful in another way. The *private Aboriginal domain* can be positioned in parallel to the *external institutional environment* and thus not in a direct line between assets and livelihood outcomes. The ‘main event’ of the conversion of settlement-based assets into sustainable livelihoods can thus be positioned in an intercultural field, ‘sandwiched’ between the *private Aboriginal domain* and the *external institutional environment* (Figure 37).

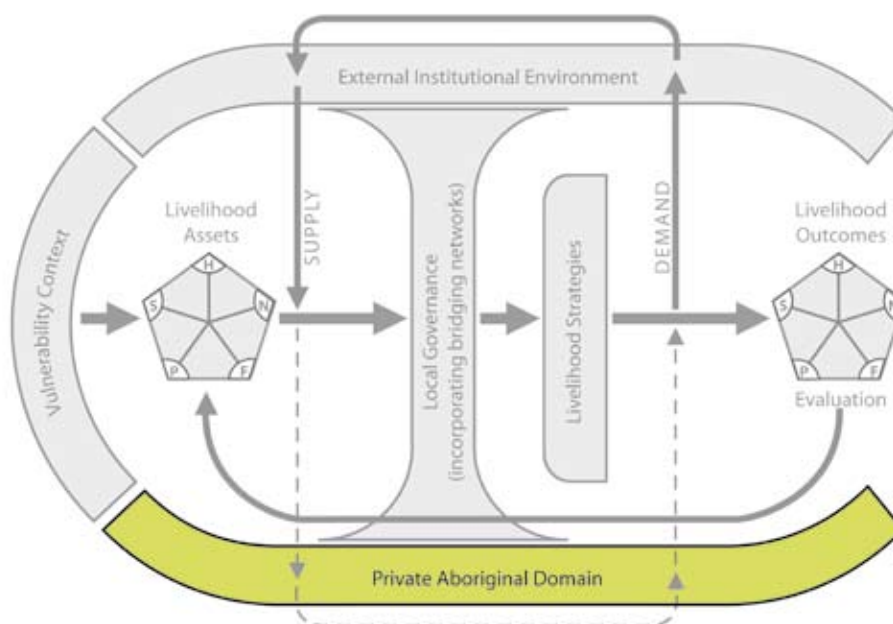


Figure 39: Private Aboriginal domain in the modified SL Framework

The study found merit in an asset-based approach, but found that assets are only accessible and transformable to the extent permitted by a complex set of external institutional and internal cultural constraints. In terms of achieving sustainable livelihoods, the critical processes are those occurring in the sphere of local governance and networks, on an intercultural field. It is in the constantly shifting space between Aboriginal and non-Aboriginal domains that new relationships, roles and rules can be worked through and where leaders, employees and practitioners have the opportunity to work together towards sustainable livelihood outcomes.

3.5 Political relations (demand and supply)

Several commentators are critical of the SL Framework in terms of its superficial treatment of power relations. As summarised by Carney (2002, 36), the SL Framework ‘could achieve more if it were to break out of this provider perspective and pay more attention to empowering users (and user groups) to do things for themselves (even through this might result in failure in some instances).’ Some commentators have even argued that the framework should include a sixth asset – political capital (ibid, 40). As described in the above Section 3.2 on *external institutional environment*, political relations with the state and service providers are particularly pertinent to Aboriginal Australia.

Over the past thirty years, much of the policy discourse in Aboriginal affairs has been preoccupied with human rights and equity issues. Contemporary manifestations of this discourse include the equal wages decision, land rights (including native title), and Aboriginal intellectual property rights. Various critiques emerged through the 1990s, arguing that rights-based approaches focused on equity of inputs rather than outcomes (FRDC 1994), and that they ignored obligations and responsibilities (Pearson 1999). The question here is how to treat political rights under the SL Framework: as a type of asset, as a part of the *external institutional environment*, or together with the *private Aboriginal domain* as underpinning the whole SL Framework?

The research team concluded that none of these categories adequately accounted for the two-way dynamic at play. As argued by Carney (2002, 40), it is necessary to understand both the demand and supply sides of political rights and to investigate the interaction between them both. Clearly, rights are as much conferred by the state, as they are wielded by leaders as a means to leverage access. In the original DFID SL Framework, such power relations are implicitly depicted by the two-way arrows of *influence* and *access* (Figure 31). In remote Aboriginal settlements, these interactions are better conceptualised in terms of *demand and supply* of services. Similar to the workings of market economies, the theory of *demand and supply* in Aboriginal settings seeks to explain the mechanism by which many resource allocation decisions are made in the service system (Moran 2006b). Separate research in the area is ongoing, under Core Project Desert Services that Work of the Desert Knowledge CRC.

The current dynamic between livelihood assets and the *external institutional environment* is unbalanced, and predominantly supply driven. One function of the modified SL Framework is to address this imbalance, by encouraging the system to be more demand responsive. This is represented through the feedback loop at the top of Figure 40. By following the framework, it is possible to achieve a more informed expression of demand, to which the supply of services can respond.

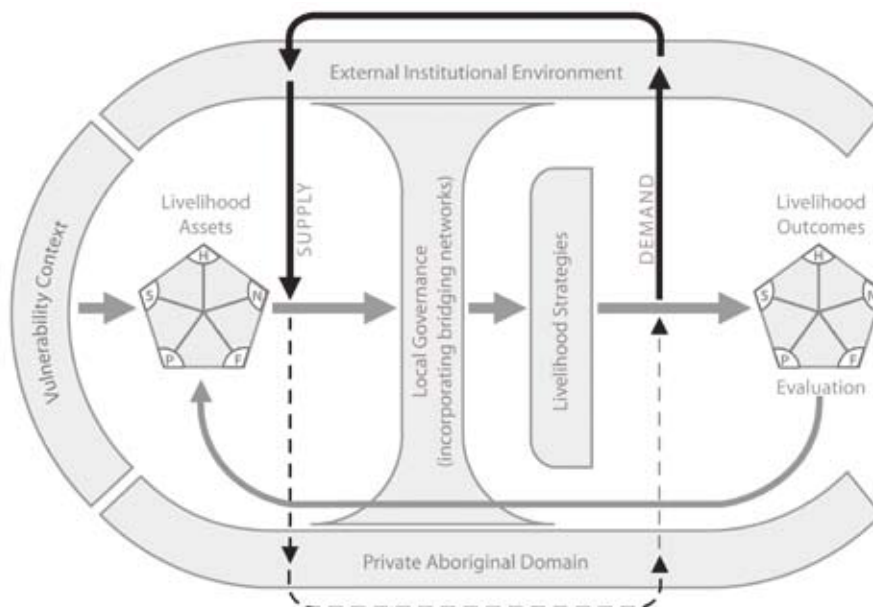


Figure 40: Demand and supply in the modified SL Framework

3.6 Strategies, outcomes, assets and resource flows

The SL Framework is more than a diagnostic analytic tool: it is intended to provide a basis for action. *Livelihood strategies* ‘denote the range and combination of activities and choices that people undertake in order to achieve their *livelihood outcomes* (DFID 1999–2001, 2.5). Specific livelihood strategies for Engawala are discussed in detail in Section 4.3.

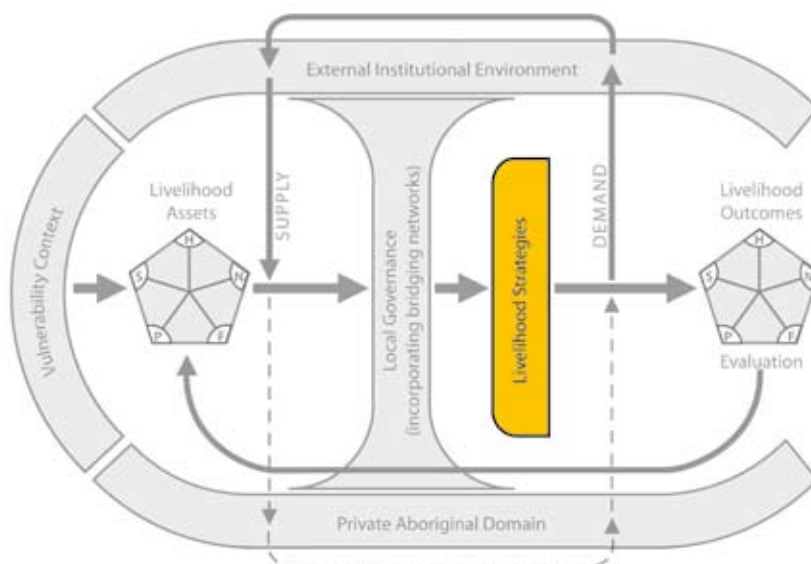


Figure 41: Livelihood strategies in the modified SL Framework

Livelihood outcomes are the final goals of the SL Framework. The outcomes that appear in the original DFID SL Framework as guidelines (DFID 1999–2001, 2.6) are drawn from an international development practice and so are of limited relevance. In August 2005, CAT organised a series of community forums at its Alice Springs office, at which the following livelihood outcomes were identified. They are listed below as an example of the types of livelihood outcomes pursued by Aboriginal people.

- Changing CDEP into proper jobs, like night patrol and essential service officers
- Mentoring to support community people into jobs
- Training that leads to real work, not training for the sake of training
- Helping people to get involved in the regional economy
- Local maintenance contracts done by local people
- Living skills program
- Improved adult literacy and numeracy
- Social and natural capital should be protected
- Keeping young people from leaving the settlement
- Less reliance on outsiders.

Under the DFID SL Framework, the starting point for livelihood analysis is *not* the *vulnerability context*, leading thereby to a linear series of permutations from left to right, ultimately generating a set of *livelihoods outcomes* (DFID 1999–2001, 2.1). Rather, in the pursuit of the livelihood

outcomes to which people aspire, DFID proposes the simultaneous investigation across all of its four main elements; (1) vulnerability context, (2) asset pentagon, (3) transforming structures and processes, and (4) livelihood strategies.

Equally so then, the starting point should not be taken to be *livelihood outcomes*. This is an important clarification for the context of remote Aboriginal settlements, in order to prevent the problem of unrealistic ‘wish listing’ which troubles participatory planning processes. This problem arises from the unique economic conditions found on Aboriginal settlements, where in a context of market failure and a welfare economy, the opportunity costs of choices are not necessarily apparent. The SL Framework provides an opportunity to inform choices based on long-term sustainability, rather than a political process of capturing government resources. It is important to not lose this distinction by entering the process through *livelihood outcomes*, thereby driving the livelihood process by community aspirations, and somehow constructing the *vulnerability context* and *asset pentagon* accordingly.

This point became strongly evident during in the course of the study. In late 2005, at about the mid-point of the study, a participatory planning exercise recorded community aspirations through a series of planning sessions. The results of this planning are given in Appendix C. At this early stage in the project, the process was not properly informed by SL Framework, and the exercise tended towards being a ‘wish-list’. In terms of both success and sustainability, it became evident that planning and decision making had to be better informed by the existing asset base and anchored to available resources.

One year later, after a period of extensive data collection (as reported in section 2), the research team was able to facilitate a more informed discussion around settlement assets and aspirations. We will return to the *livelihood strategies* and *livelihood outcomes* that emerged from this process in the concluding section. For now, some detailed consideration is required of assets, and the flows of these assets, otherwise referred to in this study as *resource flows*. The notion of resource flows introduces an important dimension to the SL Framework: that of time and change. Consideration of flows of assets, in addition to stocks, provides for a more dynamic system model.

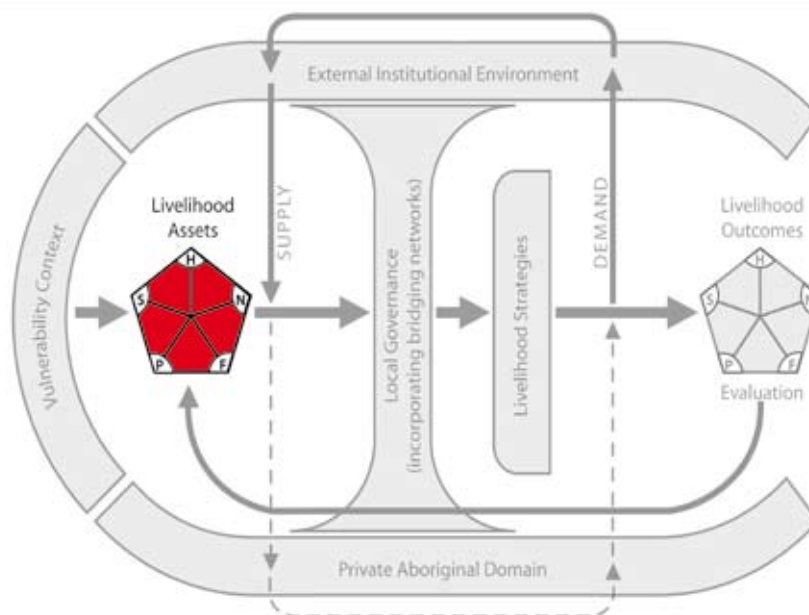


Figure 42: The asset pentagon in the modified SL Framework

At a fundamental economic level, there are four different types of assets described in accounting: current, fixed, investments, and intangible. Current assets are cash, short-term investments, receivables, inventory, and prepaid expenses. Fixed assets are basically property, plant and equipment. Investments assets are long-term investments for the future. Intangible assets lack physical substance and include patents, copyrights, franchises, goodwill, trademarks, trade names, etc.

A stock in this sense is some entity that is accumulated over time by inflows and/or depleted by outflows. Stocks are typically measured at a certain moment of time - e.g. the number of population at a certain moment. A flow changes a stock over time, with inflows adding to the stock and outflows subtracting from the stock. Flows are typically measured over a certain interval of time (e.g. the number of births over a day or month). Some simple examples are given in Table 22.

Table 22: Example of stock and flows

Stock	Inflow(s)	Outflow(s)
Store inventory	Incoming goods	Outgoing goods
Guests in a hotel	Guests arriving	Guests leaving
Resident population	Births, immigration	Deaths, emigration
Water in aquifer	Water seeping in	Water pumped out
Waste in disposal site	Dumping waste	Decay of waste
Bank balance	Paying in	Withdrawals
Fuel tank	Refueling	Fuel consumption
Housing	New housing	Asset depreciation

In the SL Framework, assets (or capitals) are the resources that people accumulate, not simply for safety or prosperity, but rather as the means of instrumental action. Sen (1997) noted that the possession of human capital is not only a means for people to produce more, and more efficiently; it also gives them the *capability* to engage more fruitfully and meaningfully with the world. As conceived by the SL Framework, assets are thus not limited to processes that seek poverty alleviation, adaptation and survival: assets are also the basis of agents' power to act and to reproduce, challenge or change the rules that govern the control, use and transformation of resources. As Bebbington (1999, 5 & 21) clarifies, in understanding the diverse ways that people build livelihoods, we need to comprehend 'the ways in which people are able to access, defend and sustain their assets, and the abilities of people to transform their assets into income, dignity, power and sustainability.'

In the context of the SL Framework then, where assets are conceptualised as vehicles for instrumental action, the existence of assets is not sufficient to achieve a *livelihood outcome* or overcome a perceived vulnerability (Meikle et al. 2001, 10). To be useful, assets must be accessible and transformable. This is consistent with Pearson and Kostakidis's (2004) argument that the lack of fungible assets in remote Aboriginal settlements prevents 'Indigenous people from using their assets to participate in the mainstream economy.'

Rather than adopting a simplistic econometric inflow/outflow model to resources flows, the study has focused on the importance of internal asset transformations. In Engawala, the routine inflow of resources into Engawala (e.g. money, fuel, food, housing, skilled workers, services) are largely inputs provided by the state. This underscores the importance of bridging network and local governance, as a means to secure and maintain these inflows of resources. But it is important

to stress two things: firstly, these inputs almost completely determine the local economy; and secondly, their inflow is largely beyond local control. In terms of achieving sustainable livelihoods, it is the internal transformations of assets that are more important, because they are in the sphere of local power and capability for economic action.

The most demonstrative example of this is physical assets, which are almost exclusively provided by external funding. With the exception of some crowding in housing, the physical assets at Engawala provided a reasonable baseline of environmental health, which is a basic citizen right of all Australians. It is, however, demonstrably clear that access to such facilities in Engawala has not necessarily lead to comparable standards of health. If we view these physical assets in term of their potential for internal transformation towards sustainable livelihoods, a different understanding emerges. Due to the communal ownership of land, the physical assets in Engawala have no value in an economic sense.³² Some limited value-adding may have occurred during the construction process, through, for example, training and on-the-job employment. Once an asset is installed, transformation is largely limited to the manipulation of spaces, as occurred with the conversion of a spare room in the council office to a preschool, or the temporary boarding of families between houses during renovations. These types of transformations, however, are minor in terms of the types of asset manipulations that might be deployed towards achieving a livelihood strategy.

Engawala people make choices regarding transformations between different assets, often under conditions of constraint. People may choose to live in an unfriendly city with few accommodation choices in order to earn monetary income, or stay at home with family and kin in a safer, calmer and cleaner environment. People may compromise family and kinship obligations, to attend school, or regular employment. Many choices involve drawing down the asset base in an unsustainable manner. This may be natural capital (e.g. excessive hunting and firewood collection); social capital (e.g. people may stress family and kin networks by not contributing to them); financial capital (e.g. using savings or borrowing money to purchase vehicles); physical capital (e.g. not maintaining public housing); and human capital (e.g. not sending young men to school after they have been initiated into customary law). As again noted by Bebbington (ibid, 30–31), '*livelihood strategies* are attempts at continuous management and modifications of substitutions, trade-offs and draw-downs on different capital assets.'

The important clarification here is to seek to strengthen rather than deplete the asset base. Towards this end, it is important to clarify that assets are not only inputs to *livelihood strategies*: they are also outputs. In the DFID SL Framework, a feedback arrow runs from *livelihood outcomes* back to the *asset pentagon* (Figure 31). To better depict the transformations that occur in the assets base in the course of pursuing *livelihood strategies*, the research team decided that a second asset pentagon was necessary, at the output side of the SL Framework (Figure 43). This promotes consideration of how assets will be transformed in the course achieving improved livelihoods. It also encourages monitoring and evaluation, to ensure that the asset base is not overly depleted, or at least that tradeoffs and impacts are known and accepted.

³² Local government authorities, by comparison, can borrow money against the value of public assets, including libraries and other public buildings.

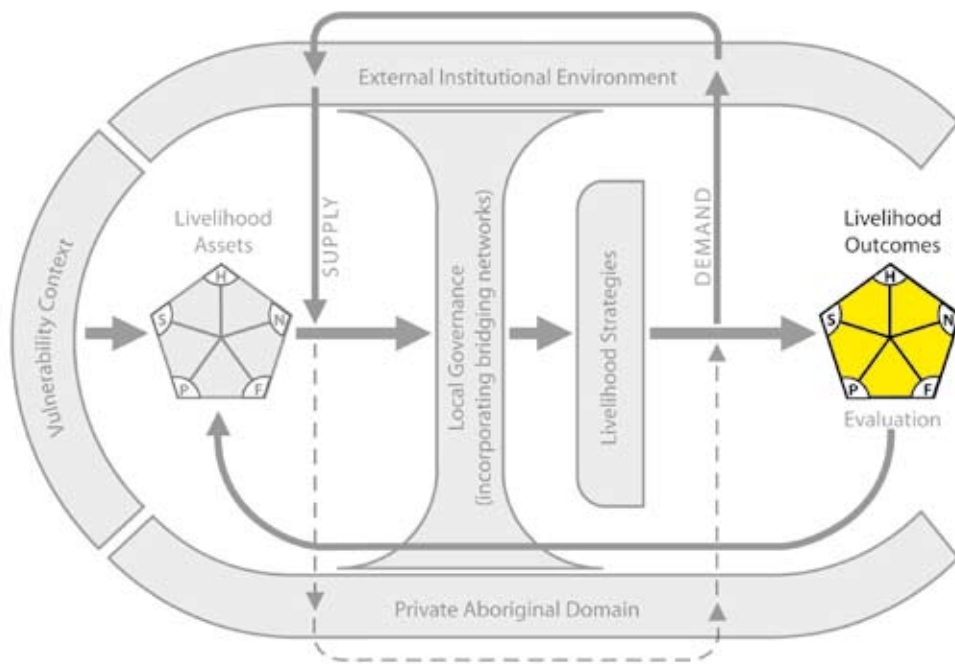


Figure 43: Livelihood outcomes in the modified SL Framework

The study found that resource accumulation and depletion were more important than inflows and outflows (e.g. how social networks strengthen or weaken, rather than flow in or out). The flow of resources into and out of Engawala (e.g. money, people, food and artworks) are critical, but it is the net effect of these flows on the asset base that are more important, especially when the impact can be negative (e.g. the depletion of skills from the settlement, decline of subsistence food collection, or conflicts over competition for limited funding).

4 Discussion and conclusions

4.1 The Framework in practice

With all of its respective elements described in the previous section, this section will give some overarching comments about its practice and limitations.

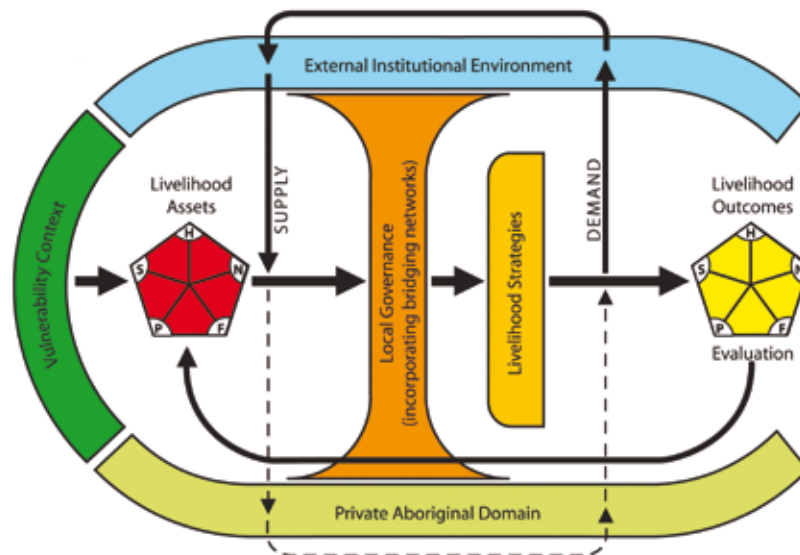


Figure 44: Modified Sustainable Livelihoods Framework³³

Before considering using the modified SL Framework in practice, there is a need to recognise the serious mismatch between the ability of researchers to develop frameworks for understanding Aboriginal disadvantage, and the ability to achieve outcomes that actually impact on that disadvantage. Some have argued that the very professional and academic system that spawns such frameworks may well make things worse (Escobar 1992; Pritchett and Woolcock 2002). A report elaborating a framework needs to be clear about its limitations from the outset.

In adopting the Framework elsewhere, it is important not to make assumptions of a unified homogeneous community, not to gloss over 'conflicts of interest', power imbalances and gender imbalance in the local polity, and to distinguish between personal and settlement assets. The capacity to achieve sustainable livelihoods depends not only on community level trust and collaboration, but also on social cohesion embedded in household and intra-household level relationships. At the household level, internal lifecycle factors that affect the structure and composition of households, such as birth, marriage and death, can affect their ability to respond to external changes. Within households, asymmetries in rights and obligations on the basis of gender and age translate into differences in the ability to cope with economic difficulties (Moser 1998, 3; Brocklesby and Fisher 2003). It is therefore necessary to use the SL Framework at both a household and settlement level, and to carefully distinguish between the two.

³³ The Framework was modified in a specific context at one remote Aboriginal settlement. Its generalisation to other settings and contexts should not be assumed.

Hierarchy theory indicates that work at a particular scale often requires insights from at least two other scales. Thus work at the settlement level requires component studies at lower levels, such as the household level or the intra-household level, to understand the important processes that lead to the emerging characteristics at the settlement level. Work at the settlement level will also require work at higher levels, for example, into the institutional framework established by regional government (Campbell et al. 2001).

Because Engawala is a small and comparatively homogenous settlement, the current study was able to operate at a settlement level. While there were clearly differences in aspiration and resources between household and settlement scales, the community was cohesive enough that the distinction was not clear cut. The research team and participants effectively made conceptual jumps from the household to the settlement throughout the process. In hindsight, the study might have benefited from separate component studies at a household level, which were then incorporated into the settlement-level analysis.

It is especially important to stress this point: the framework is *not* a conceptual or theoretical model which explains or predicts asset flows or the dynamics of community life in remote Aboriginal settlements. An illustrative example of this is that there is no basis from which to measure the relative importance of the five assets of the asset pentagon, at the heart of the framework. With the exception of financial capital, there are no neat units of analysis. While it may be possible to count the number of houses or the length of sealed roads, this is not indicative of the value these represent in terms of assets or transformations to realise aspirations. Each of the capitals can be liabilities as well as assets, a matter to which we will return in the concluding section. The capitals are best measured subjectively by people with a deep understanding of the local situation, and so must be considered less simplistically than a simple aggregate. They are mainly a didactic device to ensure that there is a more balanced and integrated approach to practice than historically.³⁴

Equally, regardless of the lengths taken to understand the local situation, the Framework will always be an intercultural construct. It is not something that Aboriginal people should be expected to own, or use independently, as a substitute for local knowledge or informal decision-making processes, that will likely precede and follow the event at hand. Perhaps this is possible in some places, but it should not be expected.

More accurately, the Framework is a *participatory model of practice*, to draw both outsiders and locals onto an intercultural field on which knowledge sharing and innovation is possible. As noted by Freidman (1993, 484) ‘it is in the face-to-face transactions between planners and the affected population that a basis of knowledge adequate to the problem can be found’. Under the unique circumstances found in Aboriginal settlements, ‘innovation requires more detailed and specific knowledge to bear on a situation than would be possible if only expert knowledge was used’ (ibid). The opposite also applies, if only local knowledge is used. As elsewhere elucidated by one of the authors of this report, ‘the intercultural nature of the dilemmas faced in practising self-determination is such that no individual or group from either the Aboriginal domain or the non-Aboriginal domain can fundamentally find solutions on their own’ (Moran 2006b, 387).

If people living in remote settlements and external actors who provide services and support are to find a better model of practice, both sides need to find a more effective means of communication. Often, the language and the concepts used by researchers and service providers to describe remote settlements are quite different from those used by settlement people themselves, even if they are talking about the same subject. The modified SL Framework and the interpretative tools used in

³⁴ The research team is grateful to Mark Stafford Smith for his comments which helped to elucidate this point.

this study can help create a common language and understanding of the best basis to proceed. To achieve this practice, the understanding of the different elements may need to be adjusted according to local situations. For the Framework to be effective, this common understanding is more important than its structural and graphical elements.

It is intended that the Framework will encourage outsiders to understand, observe and listen, rather than jumping to quick conclusions or making hasty judgements about the exact nature of the problems, assets and aspirations. This is important for two reasons. Firstly, knowing the extent that people are already effective decision-makers is an important foundation for developing new livelihood strategies, and for ensuring that these strategies don't have a negative impact on existing assets and capacities. Secondly, it encourages a shift in asymmetric power relationships between the 'expert' and 'beneficiary' to a more even footing.

Towards this, it is important to begin with what people have done in the past for themselves, without outside assistance. Drawing on their assets, often as a means to reduce perceived vulnerabilities, or in keeping with a community aspiration, the community will have a history of developing internal livelihood strategies. While they may not describe the process in the terms or categories set out in the Framework, revisiting these past initiatives and recording them in terms of the SL Framework is an important step to reaching a shared understanding with outsiders, and a logical starting point toward jointly developing new livelihood strategies.

An example of the application of the Framework retrospectively, after an event, is given below. The event involves community decisions around keeping alcohol out of the settlement.³⁵

1. Vulnerability: A clear vulnerability at Engawala was the problems of alcohol, with its devastating effects of violence and draining of an already depleted asset pool.
2. Asset pentagon: As shown in Figure and discussed in Section 3.6.
3. External institutional environment: It is legal to drink, but not in Engawala. Whitefella laws help, but they don't prevent people from bringing alcohol in. The police and health clinic treat the problems that result, but this doesn't solve the problem.
4. Culture: There are powerful cultural elements at work, including demands on kin to drink, and for others to give/lend money to buy alcohol. We need to show people a different way.
5. Governance: Community leaders met with the community manager, a list of rules was drawn up to limit drinking, notices were placed around the settlement, and a public meeting was held. These helped, but people did not observe the rules and the problem came back.
6. Livelihood strategy: Drawing on the available assets on the settlement, it was decided to instigate a night patrol. The available physical capital included a settlement vehicle suited to the purpose. There was enough financial capital to pay for the costs through CDEP, since the short distances involved did not consume much fuel. There was the necessary human capital in young men, which largely involved familiarity with the settlement and drivers licenses. In addition, one young man had some training as a security officer.
7. Livelihood outcome: It is now quieter at night, with less humbug. Young men have a meaningful job in the settlement, and one much respected by the elders.

³⁵ The description given is not verbatim, and was paraphrased by the authors.

4.2 The Livelihoods bicycle

In attempting to practice the modified SL Framework at Engawala, the research team spent considerable time finding ways for the concepts to be understood. A designer working with the research team helped to prepare a conceptual interpretation of the modified SL framework, which took the form of the ‘livelihoods bicycle’. The interpretation had three intended purposes:

1. To facilitate researchers’ presentation of the livelihood framework
2. To create a common/cross-cultural graphical language
3. To provide a narrative for community members to follow when applying the framework to achieve livelihood strategies.

As a bicycle requires many parts to function together as a whole, using the bicycle as a metaphor demonstrates how many elements need to work together in order to achieve a desired livelihood outcome. The comparison of each bicycle part with an aspect of the SL Framework conveys the meaning and relationships of the elements within the Framework.

The process diagrams used to depict the SL Framework, with their geometric shapes and lines, sit statically on a page (Figure 3). While such diagrammatic models communicate effectively to a professional audience, the black and white lines, boxes of text, and geometric shapes do not imbue a sense of movement or action that the framework intends. The use of the bicycle aims to overcome this and communicate the need for energy and engagement in order for livelihood outcomes to be reached.

The delivery of the livelihood framework as a narrative is consistent with the cultural practice of story telling. In this sense, the retelling or rethinking of the story becomes a process of familiarisation of the framework. The narrative approach delivers the framework as a ‘whole story’, further emphasising the need for all aspects to be considered throughout the planning and utilisation of the framework. By moving through the parts of the bicycle, the process acts as a checklist to the SL Framework.

When used at Engawala during the course of the study, the bicycle story seemed well received and responses were positive. Further work, however, is required to validate the conceptual interpretation in other settlements and in different contexts. More important than the categories, images and stories presented below, is the dialogue that they provoke. Due to the component make-up of the bicycle story, if the framework proves to be inconclusive, another aspect/part can be added following the existing metaphorical pattern.

THE BICYCLE STORY: Two stories at once.

NB: The following is a suggested script, or story, that should accompany the 10 images that make up the bicycle story. It should be noted that this resource is a tool, and, while flexibility and responsiveness is necessary, the story should be delivered as a whole to provide the best chance of comprehension.

I'm going to tell you two stories at once. One story is about a bicycle, the other story is about how you, your community, can get where you want to go. We think this is a way that might help you plan for your community, a way to help you remember and understand all the things that are involved in making a plan happen.

THE PATH: Livelihood outcomes/where you're going.



The aim of this bicycle is to get you where you want to go. This point at the end of the road is where you want your community to be, it's what you want to achieve. Down the road is in the future, it's what you're trying to work towards. To get there you have to have a bicycle that works.

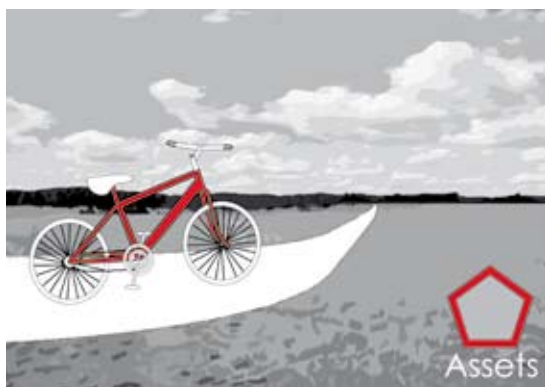
THE SEAT: Vulnerability/worries or dangers along the road



When you look down that road, you have to think of all the things that might stop you getting there. What are the dangers? What are you worried about? Think: if you've got a bicycle, and there's no seat on that bike, you know it's not going to be safe to ride. You want a good seat, and once you're on that seat, you can look forward to see down that track and think, 'What are the troubles along this road?' Once you know what they are, you can get around them and work out ways of getting rid of those troubles.

THE FRAME: Assets/where the strength of the bicycle is, everything else is built around this

NB: The asset pentagon is another tier of information and should preferably already have been introduced before the telling of the bicycle story.



Remember back here where we went through all the things that you have and worked out where your strengths are? That's what makes the frame. You can use these things, these assets, to make the bicycle strong. If there are some assets that aren't strong, you can use the assets that are strong to balance the pentagon out. That's what the wheels are for.

THE WHEELS: Resource flows/making your frame stronger/changing the shape of your frame.

NB: This is an opportunity to talk about how assets can be moved and translated. An example might be transferring natural capital, in the form of bush foods, into financial capital.



The wheels are the ways that the bicycle moves, the way that things are changing. Assets are flowing in and out of the community, but some existing assets are changing too. Are these changes working for the community well? Are things going too slowly, or quickly? Are the spokes to the wheel broken? Are the tyres running out of air?

THE HANDLE-BARS: Governance/decision making/staying on the path



Have you ever ridden a bicycle? Seen someone else ride one? Imagine how hard it would be to steer if you didn't have any handle bars, or if the handle bars aren't firm and strong. It's really important that you've got a strong person or people and strong ways of keeping the handle bars going the right way, making sure that the people steering keep looking at the road, stay clear about where the bicycle is going.

THE PEDALS: Livelihood strategies/making the bicycle move



Ok, so we can see what these parts are about and how they work together. This part, the pedals, that's about making it all happen. You can have a beautiful shiny bicycle, it all works and everything's ready to get you where you want to go, but unless there's someone pedalling that bicycle, someone putting energy and making everything move, nothing will happen. Everyone who wants to get to the end of the road has to put in that energy. As soon as that stops, the bicycle stops and you won't get there. Doesn't matter how fast or slow you go, but if you don't pedal, nothing will happen.

THE TECHNICIAN: Inside services/people who you can ask to help you



There are lots of people who can help you work on different bits of the bicycle. Use these people, call them up or go and talk to them and get advice on how you might be able to fix a part of the bicycle or get it working better. You might need help with your frame, or maybe you think that there's something on the road ahead that's too hard to get around. These people might come from inside the community or they might be in a town. There are lots of services that will help you get where you want to go if you ask.

THE WEATHER: External services/there's always weather



We like to think of the weather as people who are a long way away, maybe in Canberra or Darwin, who might have never come here, but make decisions that affect this place. The weather is always going to be here having an effect. You can't make the weather be how you want it. Sometimes the weather is good and you don't have to think about it much, but then sometimes it might get really hot, or stormy. It's good to understand what's going on and work out what you have to do to keep going down that path, no matter what the weather is like.

LIVELIHOOD FRAMEWORK/ the complete picture



This is one way of planning for your community, one way to see all the parts that need to be thought about to achieve what you want for your community. Think about this story next time you want to do something. Think about all the different parts, like the worries along the track, and your assets, all the things you already have and what you need. Think about who is going to keep the bicycle going in the right direction. All these parts have to come together, as strong as possible, and you've always got to put in the energy to make it happen.

4.3 Livelihoods strategies and recommendations

The SL framework is most useful in a practical sense in the development of appropriate livelihood strategies. The project undertook initial identification and planning of livelihood strategies for Engawala, but their implementation and evaluation were beyond the timeframe of this study. Through the project, five target areas (listed below) were identified for future work.

4.3.1 Building local capacity in defined areas

There are only a few full-time employment positions in Engawala and most are filled by outsiders because the positions require higher education and training qualifications (e.g. community manager, teacher, nurse, and store manager). From the data in Section 2.3.1, there is a disparity between the local education and skills levels, as well as the training courses that were on offer, and local aspirations for employment. While many people in Engawala have achieved Certificates I and II qualification levels, such training programs frequently do not lead to employment within or outside Engawala. The community manager articulated that the logical sequence is for job aspirations to be linked with local opportunities, rather than starting with training for jobs that may not be locally available.

For the few employment positions that are filled by outsiders, it would be appropriate to develop succession plans, incorporating a period of training and work supervision. This is a long-term investment that is likely to disproportionately benefit the financial assets of a few individuals (and their family), but this money would tend to circulate locally to the positive benefit of the community, certainly more so than what occurs with outside employees. These positions would also establish important role models and employment pathways for children studying at school.

It is recommended that local residents be recruited as counterparts to the community positions held by outside people, including the community manager and the store manager. A training and employment plan should be developed accordingly, with an incremental hand-over of responsibilities tied to the employment contract of the outside employee. Support should be provided by Anmatjere CGC and training providers, especially in mentoring the local resident.

The skills audit conducted under this project (see Appendix D) aimed to understand people's aspirations of employment and local activities. Aspirations for employment were related to improving self-esteem, but also clearly to increasing household income. In accordance with the rules associated with welfare and CDEP payments, household incomes need to increase markedly, otherwise reductions in welfare payments may negate any net increase.

There are a number of unrealised positions that offer opportunities for community members, including health worker positions, BRACS radio operators, and workers at a Centrelink Access Point. While these positions may not be full time, they present local employment pathways. There are also intermittent employment prospects in housing maintenance and construction, roadwork and civil construction.

There is considerable opportunity to improve the level of employment at Alcoota Station. Mining exploration is also occurring in the area, and if development proceeds, this will lead to other opportunities locally. For the Engawala settlement to maximise the potential from such developments, they should consider employment and training benefits, in addition to royalty payments. There

are several successful models of training and employment programs run by mining companies.³⁶ The CLC could facilitate similar arrangements with Alcoota Cattle Station and its ongoing development.

It is recommended that a review of previous and existing training and employment programs for Alcoota station be undertaken by CLC. Successful models operating in the mining industry should be considered, as well as a peer-mentoring program from successful Aboriginal pastoral stations operating in northern Australia.

4.3.2 Initiating local enterprise developments

The livelihood outcome which is of particular importance to many senior community members and the community manager is employment through settlement enterprises, and a number of initiatives were under consideration (Table 8). In terms of enterprise development, the two assets which have the greatest potential for transformation are social capital and natural capital. By focusing on their social assets, people from Engawala can work on broader community connections and collaborations, through mentoring, business networks or partnering with different groups. Local governance and bridging networks are also key structural elements towards achieving economic development.³⁷

The Aboriginal art market is lucrative for artists who are able to produce high quality contemporary art. Income is often sporadic, which can be both a vulnerability and positive benefit for people. Towards the end of the study period, a large proportion of community members at Engawala were engaged in an arts course offered by CDU. The Community Manager was actively marketing this artwork. Possible interventions to enhance and support this enterprise activity include setting up an arts centre, establishing a unique Engawala brand, improving relationships with existing galleries, and cataloguing through a website.

It is recommended that funding be sought for an art facility and recurrent program at Engawala, and that all artwork is marketed and catalogued through a web interface.

In terms of capturing benefits from natural capital, several options are available. The feasibility of collection of gidgee and mulga as firewood for sale to Gem Tree or in Alice Springs warrants further development as a livelihood strategy. The high price paid for firewood in Alice Springs suggests that the enterprise might be commercially viable. It is worthwhile implementing this as a CDEP activity, at least initially as a risk adverse approach, to test feasibility and community interest. The feasibility of this enterprise would be enhanced if individual incentives are provided on an individual basis, as occurs with art sales.

It is recommended that fire collection for sale in Alice Springs be undertaken as a CDEP activity, with a return of sales profits to individuals based on the weight of firewood collected.

³⁶ For example, the training and employment programs run by Newmont Tanami (Collier 2007)

³⁷ Many successful enterprises in central Australia involve partnerships between Aboriginal and non-Aboriginal entrepreneurs.

Natural (and cultural) resource management is proving an important livelihood strategy for residents of remote Australia. At Engawala, there have been some past activities in weed control and survey plots for vegetation, but these have had short timeframes and limited transfers of skill. Since much of the surrounding land is pastoral leases, national parks or other bodies who may support ranger programs and the like are not actively engaged in the area. The current Australian Government policy of ‘Working on Country’ and the Indigenous Protected Areas scheme may have potential, but they would need to be carefully negotiated with pastoral property owners or managers who may not welcome their imposition.

Given the locality of gem fossicking field and the Alcoota fossil field, there is some potential for development of tourism. Engawala people already have experience of sharing cultural knowledge during the annual visit of students from the Geelong Christian College. It would be worthwhile for interested community members from Engawala to learn from other successful Aboriginal tourism enterprises, including Gunya Titjikala, Lombadina, Hidden Lagoon and Desert Tracks. Many of these enterprises operate on a partnership arrangement between an external operator and a local community.

It is recommended that a planning workshop be held with Engawala people to explore interest and concerns with potential tourism operations. Such opportunities may include cultural tours, bush tucker workshops, and visits to the nearby fossil field. Once community priorities are clarified, partnerships should be explored with external stakeholders such as the managers of Gem Tree roadhouse, the manager of Alcoota station, and representatives from Tourism NT and the Central Land Council.

Students in Engawala have no alternative other than to leave Engawala for higher school beyond grade ten. Lack of employment opportunities may otherwise require people to travel away for work. Improving employment- and education-related mobility is central to several initiatives occurring on Cape York (Pearson 2003). The Work Placement Scheme operated by Cape York Partnerships places youth in employment positions in locations remote from their home settlements (e.g. fruit picking in Victoria), and does not offer them a return flight for seven months. If they quit before that time, they have to pay for their own fare home. The scheme organises flights, accommodation (mostly in caravans), transport between accommodation and workplace, and 24-hour supervision of the participants. Early results from the program have been impressive, especially among teenagers (Cape York Institute 2007, 331). More discussion is required in Engawala to better understand the impacts of mobility for education and employment. It may have a positive effect on assets (increasing remittances or information transfers), as well as the education and training of participants (human capital), but as highlighted in Section 3.1, many community elders are concerned about young people leaving Engawala.

It is recommended that a planning workshop be held with Engawala people to explore ways of improving employment- and education-related mobility for youth, and to ensure that any negative social impacts on the community are carefully managed.

4.3.3 Targeting settlement facilities

At an early stage of the project, a list of the community’s aspirations was documented which largely involved new settlement facilities and infrastructure, generally related to comparisons of facilities available at other settlements in the region. With the exception of the airstrip lighting

and the fire-damaged health clinic, the standard of settlement facilities was generally acceptable. Of highest priority importance is the need to secure health services at the settlement level for the residents of Engawala and the surrounding outstations.

It is recommended that the health service return to at least the same level of service provided before the fire in the building, but preferably, with a resident nurse, a settlement health worker and locally developed health care programs.

It is recommended that lighting of the airstrip be upgraded, to enhance the airstrip's use for emergency evacuations across the region.

Improving and upgrading the infrastructure base at Engawala remains an important aspect of sustainability of the settlement. While such physical assets are not transferable in a financial sense due to land tenure limitations, they are central to most livelihood strategies. Faced with declining funding opportunities, Engawala interestingly found ways to convert underused building space, which happened through the conversion of an underused room at Council into a preschool.

New infrastructure can be provided in ways that maximise the social and human capital benefits. For example, an arts centre can offer considerable benefits beyond its physical attributes: it can support an arts program and enterprise development and create a valuable site to strengthen social capital, through socialisation and teaching of culture. It is also possible to gain additional 'value' from settlement infrastructure by building local capacities to not only plan and prioritise developments, but also to project manage and to build local work teams (such as a local construction team). Identified priorities at Engawala that should involve local project management and work teams include improvements (shade structures and ablution) around the football oval, lighting of the basketball court, and re-establishment of the settlement orchard. These projects (based on community aspirations) could potentially build up human capital while also strengthening the social and physical assets of the settlement.

It is recommended that training programs be framed around small scale construction activities in Engawala, through the CDEP program, starting with the proposed improvements to sporting facilities.

4.3.4 Enhancing governance processes

Decision making at Engawala is largely oriented around social and kinship relationships within and between families (see section 2.2.1). This is a strong and important feature of the social capital of Engawala settlement.

In particular, the successful informal decision making practices displayed around alcohol abuse by leaders of the community deserves attention. The community should consider establishing a local committee responsible for making decisions around law and safety, and which could co-ordinate activities with the police, correctional services and other stakeholders in relation to community safety.

In terms of interventions, the internal and informal decision-making processes operating in Engawala do not warrant particular attention, but relationships to outside formal organisations do. In particular, many residents (including many of senior men and women) appeared confused over matters that fell between Engawala and Anmatjere Council and/or Government. The link between governance bodies such as Engawala and Anmatjere CGC could be improved. It is particularly important to identify and develop structures that detail the roles and responsibilities of both parties, such as the MOU under development (Burdon Torzillo 2006; Sanders and Holcombe 2007).

Local social capital and governance should be treated as a valuable asset (rather than undermined) when identifying roles and responsibilities at different levels. To strengthen the relationships with outside governance structures, small local projects and other interventions should focus on building the capacity of senior men and women in the settlement to project manage or supervise activities.

Respective responsibilities between Anmatjere CGC and Engawala Management Committee should be clearly stipulated in the MOU under development, and understood by all relevant stakeholders. A better match is required between local capacity and the relevance and quantity of administration to be processed.

4.3.5 Improving flows of information on policy interventions

Providing effective policy and supporting programs to remote Aboriginal settlements is a consistent challenge to governments. The limited coordination between and within state departments and between state departments and federal government departments has been pointed out by many authors (e.g. Thurtell 2003). In addition, the demise of ATSIC has contributed to feelings of uneasiness in many Aboriginal people about funding sources and transparency of information.

It appears likely that changes in policy will proceed by enforcement and regulation rather than through consultation with individual settlements. The best example of this is the changes in CDEP, which to some extent seems to be a matter of enforcing rules that have always been in place. Such enforcement may be difficult to achieve when there is a withdrawal of supervision support for community members (i.e. two supervisors for 51 CDEP participants at Engawala). Moreover, it is near impossible to achieve in remote homelands where there is no local supervision, such as at Mulga Bore and Angkula. Unless community members are identified as supervisors and mentored appropriately, attempts to enforce CDEP rules may be ineffective.³⁸

There is a clear deficiency in the provision of new policy information at the local level in Engawala. Information was often poorly delivered because little attention was paid to an acceptable format or with an appreciation of the local context. During the study, the research team was drawn into coordinating meetings with community members and outside government staff, to support the delivery of information over the changing policy environment, especially with regards to CDEP.

It is recommended that external agencies devote more time and resources to dissemination of information and participatory consultation, including the use of local interpreters, peer-mentoring programs, noticeboards, public meetings and graphical resources.

³⁸ From mid-2007, as this report was being finalised, the Australian Federal Government began a major intervention in the governance of remote Aboriginal settlements in response to a damning report on child abuse (Wild and Anderson 2007). Notwithstanding the urgency of the issues involved, the top-down approach of the intervention was in contrast to the principles set out by Wild and Anderson for how the process of addressing child abuse should proceed.

4.4 Conclusions and further research

The study has revealed the difficulties of uncritically transplanting international development practices to Aboriginal affairs. In applying the DFID SL Framework to one remote Aboriginal settlement, considerable modifications to the Framework were necessary. This underscores the problem of uncritically transposing international development practice to Australian Aboriginal contexts.

The research team is conservative about generalising the modified SL Framework and other conclusions of the study to other Aboriginal settlements and contexts. As set out below, Engawala has a particular set of attributes which make it unique, as do most Aboriginal settlements.

1. It is a relatively cohesive and progressive settlement, with a functional internal system of decision making, and a comparative lack of social problems.
2. It is located in central Australia, within two hours drive from Alice Springs.
3. It has a relatively small population, permitting consultation to occur across the different households and interest groups in the settlement.

The research team have considerable respect for the complexity and diversity between different remote settlements, and the unique administrative and decision-making systems that emerge. They also consider that the propensity in Aboriginal Affairs to convert findings from local studies to universal solutions is problematic. A critical researcher, however, may take results from this study and consider their application to other types of settlements, as locally appropriate. Aspects of the research will therefore be generalisable to other settlements within and outside Australia, but this should not be assumed.

A limitation of the study is clearly the focus on one settlement site, which in turn reduced the ability to study resource flows operating at a regional scale (e.g. Anmatjere CGC does not separate its operational funds according to its member settlements). If the research undertaken in this study is adapted elsewhere, it is recommended that the analysis proceed on a regional and local scale simultaneously.

The study also tended to focus on dealings with the outside world in terms of livelihood strategies and resource flows. The transactions involved in different decision-making contexts (e.g. bush foods, native title) might require different approaches. Practitioners should be prepared to make modifications to the Framework to suit the local application. Significantly, the common language of a shared discourse is more important than the particular configuration and order of the 'boxes' of the SL Framework.

The inflows of financial and physical resources to Engawala are dominated by inputs provided by the state, which creates a unique political economy. Whereas mainstream settlements (and to a lesser extent, international development settings in third world countries) are underpinned by a market economy, remote Aboriginal settlements are characterised by the very lack of one. Economic opportunities in a financial sense are extremely limited. Government allocations dominate income through project grants and welfare payments, about half of which circulate through the store. Almost all employment positions in the settlement (and its related regional centre) are held by outsiders. With almost 100% local unemployment, little of the external funding flows to household incomes. A high turnover of CDEP welfare payments is evident every week, primarily for the purchase of food and other basic necessities. There is little internal financial capital or savings to leverage economic development. These obstacles ensure that the settlement will remain limited in its ability to reach some measure of economic independence.

The policy context to the study is the question of ‘viability’ of remote settlements. In considering the concept, it is not possible to separate this unique political economy from the many interventions from the Australian state. There is a certain historical irony to external judgements of viability, since remote Aboriginal settlements are largely products of the largesse of the state. The basic needs of the residents of remote Aboriginal settlements (housing, water, food, income, etc.) have long been met by various governments. This is most evident in the outstation movement in the Northern Territory during the 1990s, which occurred with considerable policy and financial support from the Australian Government. The viability of remote settlements has always been inseparably intertwined with government-backed funding and services. In an Australian context of Aboriginal Affairs, it is therefore problematic to single out a settlement from this system, and to then assess its viability in isolation from the system.

Beyond inputs from the state, in terms of people acting for themselves to improve livelihoods, the type of resource flow of critical importance is the transformation from an existing stock of assets. If people are to use an asset towards improved livelihoods, it must be accessible and transformable. Financial capital in the sense of discretionary disposable income and household savings at Engawala is very low. Physical assets (e.g. housing, infrastructure) are largely provided by the state, and communal ownership ensures that these assets are not fungible (the notable exception being second-hand vehicles). Despite their limited economic value, these physical assets provide the backbone of life in Engawala and their use is adjusted to suit different livelihood strategies (e.g. setting up a child care facility in an underused room of the Council Office). Human capital is low, both in terms of skills and the extent to which people are empowered to act independently. Opportunities for economic development and job creation are limited, as is motivation for training. Despite the availability of natural capital (bush foods, firewood), community title and logistical constraints largely limit their economic potential to subsistence. Of the five asset categories, social capital is the most significant in terms of its transferability in an economic sense, particularly in overcoming short-term vulnerability.

Many of the activities occurring in the Aboriginal domain are explained in terms of their cultural determinants, but the study has demonstrated their economic determinants as well. In the lack of accessibility to other assets, social capital is the asset most readily available and convertible at times of need. By investing time and resources into family and kin, people are in effect making deposits of social capital from which they can later draw.

During the course of the study, there was a high level of mobility of residents, as is typical in most remote settlements. On one occasion, the entire population (with the exception of two people) was absent for a large sporting carnival. On another, the population of the settlement swelled for sorry business after the death of a senior elder. Some of this mobility is related to employment in Alice Springs, and income earned and remitted back to family members in Engawala are an important source of income for some families. But more importantly, to the extent that mobility builds and sustains social capital, it is also clearly a sound economic strategy. There are high costs associated with mobility, given the distances between centres, the rising cost of fuel, and the poor condition of outback roads. Despite inadequate government support, people prioritise travel over other livelihood options, pooling their limited financial resources and displaying innovative bush mechanic techniques, including a network of wrecks for spare parts. The effects of mobility are frustrating for service providers familiar with static populations, but people are exercising a discretionary socio-economic response to the limited economic ‘viability’ of their home settlements.

It is interesting to reflect on the mounting anecdotal evidence that mobility in central Australia has increased since the viability debate began. Reports of increased mobility were almost immediate, long before any policy or program effects could be realised locally. Due to their heavy reliance on government transfers, simply raising doubts about the ongoing level of financial support may be enough to increase the vulnerability of residents living in small settlements. An adaptive response might then be to increase efforts to build social capital in their wider community on larger settlements, by travelling there more frequently and staying for longer periods, with immediate implications for regional service centres. Further research is required to test whether such a relationship exists between mobility and uncertainty in the policy environment.

Engawala people rely strongly on relationships with trusted outsiders in governments and higher-level Aboriginal organisations, across the bridging networks of local governance. Apart from the obvious opportunities to lobby for resource allocation, these networks are critical to information sharing and gaining knowledge of the external system. The current round of reform in which the viability debate is positioned is accompanied with increased enforcement, regulation and vertical accountability, which is disrupting the relationships between leaders, trusted outsiders and external networks. There is a clear lack of dissemination of information about the changes to the local level, which has been exacerbated by moves away from representative community organisations that might have previously performed an intermediary role. These factors have combined to reduce the efficacy of bridging networks so critical to reducing the isolation of remote settlements, thus (ironically given the focus of the viability debate) undermining the very social capital which is critical to sustainable livelihoods.

Despite its centrality to community assets, social capital is a notoriously difficult thing to measure. Furthermore, there is a paradox inherent to social capital, for it can be considered a liability as well as an asset. As Hunter (2004, 3) noted, 'if Indigenous social networks are largely confined to the jobless, then a reduction in expectations can become a self-fulfilling prophecy whereby people fail to see the advantages in gaining further education.' Bowles (1999) similarly described the parochialism and intolerance of diversity in mainstream settlements with high levels of social capital. Group loyalties can be so strong that they isolate a member from the outside world, siphon off hard-earned assets and foster an environment of ridicule towards efforts to study, work or attending meetings. It seems reasonable to posit that a heightened reliance on social capital could lead to an excessive strain on internal social networks, to the point where this pressure leads to social dysfunction. Further research is required to test this hypothesis.

On the question of viability, Box (2006) posited that 'communities without the required social structure will not be viable, even with buildings, roads and income streams provided.' Based on the anecdotal experience of the authors, Engawala is a relatively cohesive settlement with high levels of social capital. It is likely that there are other settlements where social capital has become so low, that the viability of the settlement could be called into question. If the level of dysfunction in a settlement was to deteriorate to this level, then (in the absence of the other capitals) there would be little or no asset base. The research team posits that people would then leave of their own accord. Interestingly, escaping the pressures of town life is among the complex set of reasons given by people who have left settlements to establish remote outstations (e.g. Altman 1987, 8).

The task of identifying a set of definitive indicators of sustainability (or viability) is enormous and beyond the scope of this study. The merit of the enquiry is also questionable, especially since we do not fully understand (and probably never will) the precise ways in which natural, social and economic systems interact. There is an alluring simplicity to the claims (DFID 1999–2001, 1.2) that

sustainable systems accumulate stocks of assets and increase the capital base over time, whereas unsustainable systems deplete or run down capital, spending assets as if they were income, and so leaving less for future generations. The system as revealed in Engawala is considerably more complex than these notions. It extends beyond economics and assets, to incorporate aspects of culture, wellbeing and relationships.

There is an assumption in the SL Framework that Aboriginal people assess livelihood options according to resource-based criteria, whereas the study suggests that other criteria are equally meaningful to Aboriginal people, in particular the maintenance of culture. Engawala settlement is largely a conjunction between place and associations with home and country. Regardless of their asset base and resource flows, people live in Engawala largely because only there can they produce and maintain a set of practices which they consider to be vital. Notwithstanding the ongoing debate in Australia which is questioning the relative importance of culture, its fundamental role cannot be ignored. As described by Bebbington (1999, 31):

... over and above the meaningfulness of a particular set of assets, there is a meaningfulness associated with a set of cultural practices made possible (or constrained) by the patterns of co-residence and absence linked to certain livelihood strategies ... We ought look at the changing composition [of the different capitals] not only in sustainability or viability terms but also in poverty terms. People, regions and countries opt to address certain dimensions of their poverty, and not others, certain dimensions of sustainability and not others. How they make this choice depends on what development, poverty and livelihood mean to them, as well as the constraints under which they make these decisions. We therefore need to be concerned not only with the ways in which assets are translated into income, but also with their impact on peoples' sense of their wellbeing. In this sense, peoples' capital assets affect poverty status and quality of life by affecting human experience as well as income. Keeping this experiential dimension of poverty and livelihood is thus critical if interventions are to be relevant.

Further research is required to establish a rationale for settlement sustainability, against which changes in the overall stock of the five types of capital can be better related. In moving beyond an 'on/off' delineation of whether an Aboriginal settlement is viable, more nuanced graduations could instead promote improved sustainability.³⁹ Importantly, policy-makers need to largely set aside simplistic thresholds of viability. There may be extreme cases of very small settlements with no asset base where it is impossible by any model to provide access to services. However, such accounting would have to be carried out very carefully, for it might also demonstrate that many poorer pastoral stations are also non-viable. The fact is that people can choose to make almost any scale of settlement and remoteness work if they are prepared to adjust their aspirations and take on an appropriate model of service delivery (probably involving a considerable self-reliance). Viability is therefore better conceived as a complex trade-off, between the aspirations of a community for services and the costs of providing those services, and the form of this trade-off is different for settlements that function in different ways (Stafford Smith and Moran 2008).

The study hypothesises that an over-reliance on social capital, in a systemic economic sense, may actually be undermining the long-term sustainability of remote settlements. Irrespective of whether this is proven to be the case, the lack of alternative transferable assets introduces a major vulnerability to the sustainability of remote settlements. If reliance on social capital is to reduce, then there is clearly scope to improve sustainability through strengthening the other capitals: through

³⁹ For example, Serageldin and Steer (1994) describe four types of sustainability in terms of settlement assets: weak, sensible, strong and absurdly strong.

education, training, income creation and private enterprise. The challenges, however, are considerable; much of the history of interventions in Aboriginal Affairs has tackled these very things, with limited success.

Solutions narrowly defined in either domain are unlikely to result in sustainable solutions, since the problems are essentially hybrid and intercultural in nature. Assets are accessible and transformable to the extent permitted by the spaces provided by the *external institutional environment* and *private Aboriginal domain*. In terms of local action, it seems likely that the critical processes are those occurring in the sphere of local governance and bridging networks, on an intercultural field. It is the hybridised ‘third space’, between Aboriginal and non-Aboriginal domains, where new relationships, roles and cultural change can be worked through which have the potential to improve the system, and where actors have the space to manipulate and adapt to their advantage both the *external institutional environment* and the *private Aboriginal domain*. The modified SL Framework, as an intercultural model of practice, has the potential to help people ‘on the ground’ to work towards this end.

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Appendix A: Data checklist

Legend:	Code	Unit
	VC = Vulnerability context P = Physical capital N = Natural capital F = Financial capital H = Human capital S = Social capital TSP = Transforming Structures and Processes I = Inputs O = Outputs	T = Tonne Qual = Qualitative Rave = Descriptive

RESOURCE	Cd	UNIT	METHOD / SOURCE
Vulnerability and stability context			
Through asking qualitative open-ended questions, establish the vulnerability context. What significant events in recent history/over past have impacted on Engawala? The following are categories of events that might be explored, but perhaps best to sit back and hear what informants have to say.	VC	Qual	Interviews
Climatic, drought, floods. Substance abuse and other social problems Loss of key personnel / leaders Withdrawal of funding and services (including potentially the impact of centralisation underway through regionalism to Anmatjere Council) Conflict – internal/external Failed water supply system Relationships with Anmatjere, Alcoota station	VC	Qual	Primarily key informant interviews. Some quantitative sources may help to stimulate informants' memories, and confirm their recollections; e.g. wealthier bureau, interviews with service providers
Physical assets			
Public domain sources	P	Stats	CHINS Data Set
	P	Stats	ARUP NAHS assessment
	P	Map	SLAP
	P	Stats	DLGHSR housing condition records
Infrastructure facilities: roads, water, waste, sewerage, drainage, communication Houses – air-conditioning/heating Settlement buildings Yard and any self-built improvements (e.g. bough shades) Communal facilities (laundry, parks, etc) Settlement equipment (tools, bins, computers, etc) Settlement vehicles Private Vehicles	P	Item	Condition assessment / photograph
Natural assets			
Land, boundaries and fences	N	Map	Lands department, CLC
Native title	N	Qual	Interviews, CLC
Alcoota cattle property	N	Map	Lands department, CLC
Significant trees (cultural / shade / fruit)	N	Map	SAPRA
Flora	N	Rave	Environment department, CLC
Fauna	N	Rave	Environment department, CLC
Bush tucker	N	Qual	Interviews
Household garden produce, domestic livestock	N	Qual	Interviews / observation

RESOURCE	Cd	UNIT	METHOD / SOURCE
Firewood	N	Qual	Interviews / observation, Aboriginal Energy Use Study
Orchard (past)	N	Rave	Interviews / observation
Locational (dis)advantages (e.g. proximity/distance e.g. to markets)	N	Rave	Interviews / observation
Water	N	Rave	Interviews / observation
Human assets			
Population and demographics	H	Stats	Population trends, time series data, age/ gender tree, Interviews to confirm
Education levels	H	Stats	Interviews, census data
Skills / training levels	H	Stats	Interviews, census data, skills audit
Income	H	Stats	Interviews, census data
Internet / computer use	H	Stats	Interviews, census data
Household / family size and composition	H	Stats	Interviews, census data
Employment / labour force status	H	Stats	Interviews, census data
Health status	H	Qual	Interviews, clinic data
Literacy / numeracy	H	Stats	Interviews, school data
Leadership	H	Rave	Observations
Examples of local innovation	H	Qual	Interviews
Cultural / traditional knowledge / parenting and other important internal aspects of the Aboriginal domain which are also human assets.	H	Rave	Observation
Social capital/Knowledge/Relationships/Governance			
Existing representative/organisational structure, processes and staffing	S	Rave	Interviews
Organisational histories	S	Rave	Interviews
Anmatjere Council	S	Rave	Interviews
Central Land Council	S	Rave	Interviews
Informal organisations and networks	S	Qual	Interviews
Expressed aspirations, prioritised by need and in a context of limited resources.	S	Qual	Done
Gaps in information, as perceived by informants	S	Qual	Interviews
Main knowledge managers/brokers	S	Qual	Interviews
Local Aboriginal leaders/focal drivers	S	Qual	Interviews
Visiting Aboriginal leaders	S	Qual	Interviews
Permanent Resident Outside Employees (PROEs)	S	List	Interviews
Resident Departmental Officers (RDOs)	S	List	Interviews
Visiting Service Providers who have an established relationship	S	List	Interviews
Visiting professionals (anthropologists, lawyers, auditors, accountants, etc)	S	List	Interviews
Natural / cultural resource management (visitor management, rangers, etc)	S	Rave	
Outstations (resourcing, transportation)	S	Rave/ Map	Interviews
Financial assets			
Social security income	F	\$	Interviews / financial records
CDEP income	F	\$	Interviews / financial records

RESOURCE	Cd	UNIT	METHOD / SOURCE
Employment income	F	\$	Interviews / financial records
Social enterprises (tourism, arts, crafts)	S	Rave	Interviews
Household expenditure patterns and private saving	F	Rave	Observations
List of paid services (power cards, telephone, community levy, rent, etc)	F	Rave	Interviews
Flows: Inputs and outputs			
Imported food	I	T	Store / freight records
Tobacco	I	T	Store / freight records
Imported inedible crude material	I	T	Store / freight records
Fuel, gas, propane, butane	I	T	
Killars from Alcoota cattle station	I	No.	Interviews / observation
Exports (arts, crafts, bush tucker, etc)	O	Qual	Interviews
Housing supply	I	Qual	Housing delivery / maintenance
Housing demand (in terms of willingness to pay)	O	\$	Rent paid / arrears
Telephones (public / private landlines, mobiles)	I	No	Interviews / Telstra
Telecommunications demand	O	\$	Phone billing records / phone cards
Power supply	I	kW	Generator logs from PAWA
Power demand	O	\$	Power card sales
Water supply (differentiate groundwater, surface water, rain water, carted water, etc)	I	ML	Pump records
Water demand	?	L/c/d	Interviews
Rubbish (recycled?)	O	T	Observation
Reticulated sewage system and ponds	O	T	Pump readings
General community mobility patterns	S	Qual	Interviews
Financial accounting			
Grants	I	\$	Anmatjere Council, Engawala Inc.
Enterprise receipts (Alcoota)	I		
Other receipts	I		
Levy and charges	I		
Grant disbursements	O		
Operating expenses	O		
Building and house maintenance	O		
Capital purchases	O		
Assets	F		
Liabilities	F		

RESOURCE	Cd	UNIT	METHOD / SOURCE
Services			
Aged care (Meals on wheels ?) Funeral and mortuary Policing, law and order Justice, corrections and diversion Alcohol control and rehabilitation Emergency services Municipal services (rubbish collection, parks / gardens, etc) Vehicle maintenance Clinical health services (local clinic, medical transportation, visiting specialists) Public health promotion Public health surveillance (dog / pest control) Road construction and maintenance House construction and maintenance Women's support and child welfare Training Education Sports and recreation Youth services CDEP Banking, and over financial services Postage Art galleries Essential services (water, power, communications)	I	-	Ring around government departments and other service providers. Interview local employees of government (school teacher, nurse, etc), and any visiting service providers who are known and trusted in the settlement.
Transforming Structures and Processes			
This is the part of the SL Framework about interventions, but before we start to suggest which are best, then we should reach some understanding through evaluating past initiatives.			
Past and ongoing planning initiatives Past and ongoing Economic Development Initiatives Past training initiative Other development projects	TSP		Desktop evaluation of reports, interviews of participants
Governance initiatives	TSP	-	Council minutes

Appendix B: Frequency of visits by service providers

Department	Section	Position	Scheduled visits	In 2005-06	Role/Responsibility
Department of Health and Community Services	Environmental Health	No-one currently dedicated to this region	Twice a year	Currently operating in crisis mode which means there were no visits made during 2005-06	Conduct Housing Surveys Conduct Store Reports Assess Environment Health Provide assistance/recommendations to settlements
	Family and Community Services	No-one currently dedicated to this region	no allocated visits	Currently operating in crisis mode which means there were no visits made during 2005-06	Child protection 'No specific reported cases from Engawala Responsibility to investigate and provide care Education/awareness on child protection responsibilities
	Health and Aged Care	Manager Barkly Region			
	Pensioner Concession Scheme	Pension Scheme Coordinator	3 monthly	4 times throughout year	Distribute power cards to pensioners 8 pensioners at Engawala \$360 worth of power cards/year
	Health Promotion (nutrition)	Nutritionist	6 weekly	Last visit in March, haven't been out recently because of other commitments, intend to visit in July	Run cooking classes at Women's Centre. Run workshops with school children
Department of Local Government, Sports and Housing	Local Government	Community Development Officer	as required	Last visit in July 05	Community Development Works mainly with Anmatjere Council on governance issues July 06 - Organising governance training through Torzillo for Engawala Community Council
	IHANT	Project Officer	no scheduled visits	n/a	Maintained housing database Allocation of money for new capital and repairs and maintenance for settlement housing
Power and Water Authority	Remote Area	Technical Officer	as required -	often monthly	Support to ESO to undertake monitoring of power, sewerage and water supplies

Department	Section	Position	Scheduled visits	In 2005-06	Role/Responsibility
Centrelink		Regional Officer	1 during May 2006	Used to visit 4 times per year but currently only one visit per year	Support with filling out Centrelink payment forms Advise on correct allocations
ITEC			3 visits during March & April		Job Network Provider 06
Batchelor Institute	Senior Lecturer	Senior Lecturer			
DEET	Mobile Preschools	Early childhood teacher	1 day per week	visiting since 2003 L - started in Feb 06	Provide support to preschool teaching assistants
		Group School Principal	2 times per term	1 day per month	Provide support to teachers
DEWR		Project Manager	n/a	as requested	Oversee funding of CDEP Monitor CDEP activities Quarterly reports from Council
ICC		Alice Springs Regional Manager			
Anmatjere Community Government Council	Sports and Recreation	Anmatjere Council Sports and Rec Officer		as required	Current project work: Sport Clubs School Holidays Program Have-a-go Saturdays 7 a side Rugby Union/ Rugby League Lighting a second priority
	Aged Care	Aged Care Facilitator		as required	2 people on aged care at Engawala \$100 food vouchers per week medicine subsidised
	Municipal Services	Anmatjere Council ESO		as required	
	Essential Services			as required	
Arid Lands Environment Centre		2 employees	n/a	2 visits during March	Provisioning of information about proposed nuclear dump. Showed video
NT Police	Harts Range Station	Sergeant	n/a for 2005/06	Trying to organise 1 day per week to visit settlement but community have not suggested a suitable day attend every call out	Regular visit: licencing, check ups Call outs: Not a lot. 4 incidents of alcohol bought into the settlement. 1 incident of violence. Over the past year. Rely on Kevin Bloomfield to advise when to enter the settlement.

Appendix C: Community aspirations, November 2005

Some of the aspirations of the younger community members are as follows:

- Recreation hall with games, pool tables and activities
- Outdoor lighting for existing basketball court near the school for night use and other activities for warmer months
- A larger, softer football oval, does not have to necessarily be grassed but would be nice if possible
- Upgrade BBQ near stage
- Orchard area to be restocked with shade trees as the citrus trees failed in the past. The irrigation has already been established and upgraded recently by CAT and some of the CDEP participants

Aspiration of women:

- Keep young people from leaving the settlement
- Football and softball oval
- Childcare centre
- Old people's home
- Settlement garden
- Pool and bigger playground with shade covers
- More health-related visits to the settlement
- More visits from Centrelink
- More washing machines for the communal laundry
- Art centre/visitors centre
- More houses and better built to cater for bush living
- Settlement bus or vehicle for the women
- Games room – pool table, jukebox, TV, shop (for youth)
- Large BBQ area with yard (to keep dogs out) with chairs/tables and shade (bower shelter) for everyone
- Better heating in houses for the winter months
- Trees planted and taps put in at the cemetery, with seats or benches

What help would you like to achieve aspirations?

- Help to find out who the right people are to help the settlement
- Training on the settlement: health, office, school, cooking, shop

What skills do you have/want/extra training?

- Music – training and equipment and storage room
- Painting on materials
- More painting equipment
- Visitors' centre to sell paintings

- Sewing machine, materials
- More reliable transport options
- Training for health workers, office skills, school, cooking and the shop

What extra resources or services would you like here?

- More teachers
- Nurse based at the settlement full time
- Nutritionist
- More houses
- More heavy vehicles to maintain roads/airstrip
- More computers for the school
- More books and toys for the school
- More school playground equipment for the kids

Issues in the settlement:

- Police: Need more visits from Harts Range
- Would like to have own night patrol
- Houses: too small, not enough rooms; too low to the ground, need to be higher off the ground; maintenance is not being done often enough – have to wait too long; dog control; 2 houses don't have a toilet; some houses have no stove; air conditioning not working properly
- Women's Centre – Would like electric stove not gas
- Drinking: would like to see one place to sit and drink off the settlement, possibly fenced
- Shop: needs to open at the proper opening times, e.g. 9am not 9.30am; more say in how profits are used

Community identified priorities:

- Football and softball oval, seats and shade cover
- Better airstrip/buildings
- Old people's home – cooking area outside, cook for healthy meals
- Child care centre
- Pool
- Training
- More houses
- More washing machines for the communal laundry
- Settlement garden
- Bigger playground with shade cover
- More visits from health services and from Centrelink
- Settlement toys
- Night patrol
- Art centre

- Settlement BBQ area and bower shelter, tables
- Planting trees at cemetery, putting in taps and seats.

Discussions with community members, both individually and through a participatory planning process, has led to the identification of several core areas of resource flows that the community would like to address in order to achieve their aspirations both in the short and long term.

Following the identification of community aspirations, a number of priority areas have been identified that may provide the basis for the development of a model.

- Keeping young people on Country
- Access to infrastructure and services is a high priority
- Capacity building is considered a high priority as it is linked to the ability of community members to access and maintain jobs in the settlement
- Employment opportunities
- Knowledge of what additional resources are available both within the settlement, and externally in order to achieve community aspirations

Appendix D: Skills audit

The task, as it evolved during the research period through conversations with the Community/CDEP Manager, was to:

1. Find a better match for people in the CDEP activities – based on their past training and experience, and their interest
2. Find where people’s passion is regarding work – as only being interested was not sufficient to sustain involvement in any activity
3. Determine what are the enterprise opportunities people would be happy to engage with (i.e. we were not only to look at CDEP but business and livelihood opportunities as well)
4. It was not our role to plan projects or activities in detail

One of the initial methods was working with conventional interviews, asking people about their prior training and work experience, the jobs and training they were doing at the time, and how and what did they want to change. These interviews, although they were individual questionnaires, were conducted in a group setting, as preferred by the participants. The limits of this approach were that although several interviewees said they wanted a different job from the one they were doing then, most seemed to be happy to just choose from a handful of options, mostly ones that did not carry much responsibility and seemed relatively simple. The women typically nominated a cleaning job or cooking as their desired activity, regardless of the range of training options available.

The use of a settlement map and an aerial photo to map out all the activities that are needed to run the settlement, and some others that have a potential to bring in additional income, proved much more successful. The maps created increasingly active participation as we used them repeatedly, and the discussions showed a growing understanding of what decisions needed to be made and why.

The next step in this mapping exercise was to find out which activity/ies individual residents had an interest in, and which ones they have had previous training and/or experience in, or need to learn further skills. The information was then collated into tables which provide information in relation to activities and workplaces as well as to individuals’ existing and desired skills and engagement.

On one occasion, a member of the research team presented a few examples of scrap metal art, on loan from an Alice Springs exhibition. It was a successful idea, and created quite an inspired discussion among the men and some of the women. The settlement has all the materials, tools and skills at hand to produce pieces similar to these examples which sell well.

Settlement work	Enterprise
Construction and housing maintenance	Bush food and bush medicine
Basic office duties: phone, filing, internet banking	Orchard – food production
Centrelink, remote access point	Sewing clothes, curtains, swags
Shop assistant	Arts and crafts
Child care	Hairdressing
Aged care	Firewood collection and sales
Help with living skills	Car wrecking, used car parts
Dog health	Station

Cleaning in shop, women's centre, office, laundry, school, etc.	
Environmental health	
Alcohol and other drugs program	
Teaching and education	
Health worker, health promotion	
Youth activities	
Gardening, landscaping, shade trees	
Sports	
BRACS	
Roads	
Essential services	

Job opportunities were divided into two groups: looking after the settlement and its residents (at present government-funded activities), and enterprises with the potential to bring in private income.

In summary the following information emerged:

- It was significantly easier to get Engawala people to see the necessity of work that involves looking after their settlement than activities that focussed on income from business enterprise (in particular, women did not engage with the concept of enterprise)
- The production of bush food and medicine as well as teaching-related skills were declared to remain in the domain of non-commercial, family-based activity
- Even though there have been many skills training opportunities, and many of the residents have gained various skills, these skills are not generally used in their current jobs. Most of the skills training of the past was short term and was not followed up with ongoing mentoring or on-the-job training. However, even some of those who invested a lot of effort into learning, such as the three women who in the past held Aboriginal Health Worker positions, are not working now because of the lack of supporting structures (there is no operating clinic in Engawala)
- Documentation of previous skills training could not be found at the settlement, and our search with local RTOs resulted in only limited information
- Job aspirations did not necessarily reflect what people had previously gained skills in, and a lot of people expressed interest in training that was not connected to their present work
- In general there is now more 'employment' in the settlement (as measured by the number of positions occupied) than at the beginning of the study period, most likely because of the strengthening of the CDEP rules. This also shows a strong pattern of individuals being involved with more than one activity throughout the weekly cycle
- Throughout the discussions about training activities it was emphasised many times that people preferred formal training that provided certificates, although there was an understanding that some skills training would not give formal qualifications. It was also stressed many times that skills training is most effective when it takes place in the settlement and not in town: better attendance, more relevance, role modelling were some of the reasons given.

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