1. Analytical framework

This study develops and presents social indicators for the population resident within a region (referred to here as the Northern East Kimberley region) defined as relevant to the purposes of constructing a new comprehensive agreement over future activities in the Argyle Diamond Mine (ADM) lease area in the East Kimberley. Its initial aim was to provide statistical input to assist negotiations towards this agreement as well as to provide a baseline against which subsequent monitoring of the impact of any agreement could take place. It is presented here, however, with a much broader remit as a case study in regional statistical profiling for general public policy deliberation about future development directions in one of Western Australia’s poorest regions.

The current process of agreement-making between ADM and the Kimberley Land Council (KLC) marks something of a crossroads for communities in the region as it comes almost 25 years after the commencement of mining-related activities at Barramundi Gap, at a time when decisions are to be made about either extending these activities with underground production into the next decade, or commencing a period of wind-down in pit and processing operations leading to mine closure by around 2010. Either way, further social and economic impacts on communities close to the mine site, as well as those in the wider region, are to be expected, given the prominent role that ADM has played to date in the East Kimberley economy.

Developments in the agricultural, tourism and service sectors have also contributed substantially to socioeconomic change in the East Kimberley in recent times, and will continue to do so in the future. However, the decision to extend or cease mining operations at ADM warrants special public policy attention in light of the often fraught history of relations between the mine and local Aboriginal communities, and the existence (since 2001) of a Memorandum of Understanding between ADM and the KLC which sets out the steps towards a new comprehensive Indigenous Land Use Agreement (ILUA). Such an agreement will attempt to ensure that the consequences of on-going ADM activities are managed and not arbitrary, and that appropriate benefits flow to traditional owners, local communities and the wider region.

In this process, the establishment of baseline data on social and economic conditions was seen by the KLC and ADM as an essential component of Social Impact Assessment (SIA). As one contributor to previous impact assessment in the East Kimberley has put it, such assessment constitutes an area of systematic inquiry which seeks to investigate and understand the social and economic consequences of planned change and the processes involved in that change (Ross 1990). Analysis of this type has an established history in the region (Coombs et al. 1989; Dillon 1990; Dixon et al. 1990) having emerged as an essential feature of the public policy response to the initial development of ADM. Whilst this response occurred largely at the insistence of local Aboriginal communities (Dillon 1990), the need for monitoring of social and economic conditions is now enshrined in Rio Tinto policy governing relations with local communities (Harvey 2002). It is also
a requirement of the Environmental Protection Statement for the ADM Underground Project. Accordingly, the current political economy of mining in the region demands that Indigenous communities more fully avail themselves of any economic opportunities that arise (Harvey 2002).

In this regard, the key initiative to date in the Northern East Kimberley region has been the original Glen Hill (Argyle) Agreement subsequently extended by the Good Neighbour Program (GNP) the goal of which was to improve the circumstances of the communities (at Mandangala, Woolah, and Warmun) closest to the Argyle mine site. While the present deliberations towards a more comprehensive ILUA continue to include these same groups, there is increasing recognition by stakeholders that realisation of the benefits of mining to local populations, both in the production phase and beyond, requires the development of a sustainable mixed regional economy. This, in turn, necessitates the inclusion of an enhanced Indigenous capacity to engage and participate in the regional economy. Such intent necessarily widens the scope of any impact analysis beyond the relatively narrow geographic focus of the GNP to encompass a more functional definition of ‘area affected’ based on some measure of regionally integrated social, economic and administrative interactions.

The need for such a wider geographic perspective in assessing the impacts and potential benefits of mining formed part of a critique of the Glen Hill Agreement from the outset. According to Dixon (1990: 68), this critique was constructed by those disaffected by the signing of the Good Neighbour Agreement in terms of a perceived failure on the part of the Ashton Joint Venture company to discharge its obligations fully to people entitled to share in the material benefits of the mine’s development. This failure was perceived in terms of wunan, a word used in the region to refer to the network of trading relationships across the region that exists for the purposes of ritualised barter (Palmer and Williams 1990: 10). This network extends a set of reciprocal rights and obligations between Aboriginal people throughout the East Kimberley from the stations around the Halls Creek area, north through the Ord Valley catchment to Kununurra, Wyndham, and further to Kalumburu (not to mention areas beyond, to the west Kimberley and into the Northern Territory) (Dixon 1990: 84). Significantly, in reflecting on the Glen Hill Agreement, Dixon (1990: 83) cites an Aboriginal view expressed at the time that royalties and other benefits from mining activity were viewed as wunan. While this concept is not used here to circumscribe a region of interest, it nonetheless reinforces the idea of profiling social and economic circumstances over a region that is considerably wider than just the areas adjacent to the mine site.

Further rationale for this regional approach derives from the intent of modern mining agreements, as these aim to assist in the establishment of diversified economic activity in the vicinity of mine sites that is sustainable beyond the life of mining activity (Harvey 2002). One question that arises in this context is the degree to which mines, such as Argyle, already contribute to regional development, and to what extent they might do so in the future, particularly by generating a source of local employment both on and off the mine site. In answering this, some idea of what mines do not and cannot contribute to regional development is also provided.
Methods

The standard approach to SIA involves post-facto assessment of social and economic change consequent upon development interventions. While this is also attempted here, the focus is much more on profiling current conditions in the region, not just to compare with the past, but also to establish a baseline against which future social and economic change might be calibrated. To this end, a predictive capacity is sought through the use of projections of future population and jobs growth, thereby laying a foundation for social impact planning as much as social impact assessment. While these tasks seem straightforward enough, the manner in which they have been carried out in particular cases has varied considerably (Coombs et al. 1989; Kesteven 1986; Kakadu Region Social Impact Study (KRSIS) 1997; Taylor, Bern and Senior 1999). In the present study, the aim is to statistically profile the socioeconomic status of the Aboriginal and non-Aboriginal populations of the region at the commencement of mining at Argyle (1981, as dictated by data availability), to draw comparison with an equivalent profile for the present (as at 2001, again for reasons of data availability). The aim is to develop regional population projections from the present to 2016 so as to anticipate the extent and nature of social policy needs in the Northern East Kimberley over much of the possible span of mining activity at Argyle and any agreements associated with it.

In constructing these statistical profiles, a range of social indicators were compiled using data from a variety of published and unpublished sources which included the Census of Population and Housing, administrative data sets held by the Aboriginal and Torres Strait Islander Commission (ATSIC), Commonwealth and Western Australian government departments, locally-based Aboriginal organisations, ADM, and other regionally-based institutions such as schools, Shire councils, and businesses. This process was greatly assisted by the KLC, as well as by consultations with key informants both within regional communities and in relevant agencies in Perth, Kununurra, Wyndham, Halls Creek, Warmun, Broome and Canberra. Because of the specific focus on generating statistical information, reference to literature that describes aspects of social and economic life in the region, both past and present, is limited to instances where this provides a key source of statistical data or assists in its interpretation.

The scope of the profile covers key social and economic features of the Aboriginal and non-Aboriginal components of the regional population that typically form the basis of policy interest and potential intervention. These include demographic structure and residence patterns, labour force status, education and training, income, welfare, housing, justice and health status. For each of these categories, the aim is to identify and describe the main characteristics of the population and to highlight outstanding features in the data. While assessment of change in each of these is one aim, this is only possible where reliable time series can be compiled. Surprisingly, given the extent of previous impact assessment in this region, relatively little statistical information is available in the public domain with which to portray social and economic conditions at the outset of mining.

All sources of social indicator data have drawbacks in terms of providing a meaningful representation of the social and economic status of Aboriginal people in the region. With census data, for example, there are concerns about the cultural relevance of information
obtained from an instrument principally designed to establish the characteristics of mainstream Australian life (Smith 1991). Thus, having observed the 2001 Census count first hand at a Northern Territory outstation, Frances Morphy (2002) has described the process of enumeration as a ‘collision of systems’ concluding that census questions lack cross-cultural fit and produce answers that are often close to nonsensical.

Economic status, for example, would seem to be an unproblematic concept. In mainstream society this is generally measured by indicators such as cash income and levels of ownership of assets. However, among many Aboriginal groups it is often measured in quite different ways. For example, as pointed out by Altman (2000: 3-4), in some tradition-oriented communities a person’s status can be largely determined by access to ritual or religious knowledge rather than to material resources. Similarly, social status can be accrued by controlling the distribution of material resources rather than being an accumulator (or owner) of resources (Altman 2000: 3). In short, materialistic considerations may be of less importance among sections of the Aboriginal population, where the emphasis is rather on reciprocity in economic relations (Schwab 1995).

Equally, while social indicators report on observable population characteristics, they reveal nothing about more behavioural population attributes such as individual and community priorities and aspirations for enhancing quality of life. Indeed the whole question of what this might mean anyway and how it can be measured in an Aboriginal domain has yet to be addressed, although exploratory work on local measurement of such concepts as community strength (Memmott and Meltzer 2003) and health status (Senior 2003) provide some initial guidance here. Nor do formal indicators adequately capture the complexity of social arrangements between individuals, families and households. For example, census data identify discrete dwellings as households, but the basic economic and social units of consumption in remote Aboriginal communities are often comprised of linked households rather than single ones (Smith 2000).

Defining the region

A key issue for social impact assessment is the question of how to define areas or populations affected by particular past, present, and future development projects. While complete resolution of the issue may not be possible, contemplation of it is more than just academic—it has practical consequences for the construction of spatial boundaries that may either facilitate or impede access to relevant data for impact assessment.

For the present analysis, it just so happens that a geographic area of interest was specified by the KLC. Fortunately, this area (the Northern East Kimberley) corresponds to select statistical boundaries (or at least to a composite thereof) that are contained within the Australian Standard Geographic Classification (ASGC) of the Australian Bureau of Statistics (ABS). Accordingly, this provides a basis for compiling population characteristics and constructing social indicators.

As shown in Figure 1.1, the study region incorporates that part of the East Kimberley which commences at Halls Creek and extends northwards through Oombulgurri to Kalumburu, with the Northern Territory border as the eastern boundary. As such, it covers much of the traditional lands of the Gija and Miriuwung-Gajerong peoples.
It also effectively encompasses the East Kimberley’s three major towns and centres of economic activity (Kununurra, Wyndham and Halls Creek), and all of its major discrete Aboriginal communities and associated outstations (except for those in the more arid region to the south of Halls Creek). In effect, it comprises that part of the Kimberley for which Kununurra is the primary service centre. Thus, as Figure 1.1 illustrates, the region of interest forms only part of the wider Wunan ATSIC region, and incorporates the whole of the Wyndham-East Kimberley Statistical Local Area (SLA), but only half of the Halls Creek SLA. This incorporates nine Indigenous Areas (IAs) — Kalumburu, Oombulgurri, Wyndham, Wyndham-East Kimberley (S) west, Kununurra, Lake Argyle, Warmun, Halls Creek (S) north, and Halls Creek), and 10 Indigenous Locations (all of the IAs, plus Woolah).

**Figure 1.1. Statistical geography of the East Kimberley and Northern East Kimberley**
It should be noted that this varies somewhat from the geographic focus of the earlier East Kimberley Impact Assessment Project (EKIAP) which extended further southwards to Malan and excluded areas north of Wyndham (Coombs et al. 1989: xvi). In adopting this geography, this is not to deny that the social reality, especially for Aboriginal people, is one of social, cultural, and economic interconnectedness between this region and adjacent lands. One manifestation of this is the frequent movement of individuals, groups and families into and out of the region, making clear definition of a ‘regional’ population problematic.