

19. Economics

This chapter describes the socio-economic characteristics of the local and regional communities, including a prediction of trends over the expected life of the Project. It provides a broad summary of the Project's impact on the local, regional and Northern Territory economies in terms of direct effects on employment, income and production. This supports the social impact assessment (Chapter 7).

A detailed economic assessment is provided in Appendix W. The potential impacts identified in this chapter form the basis of the economics component of the project risk assessment undertaken in Chapter 5. The project risk assessment includes consequence, likelihood and residual risk ratings for economic impact after management measures are implemented.

19.1 Introduction

This chapter addresses potential impacts on the local and regional economies that are expected to be affected (both positively and negatively), and also:

- ▶ provides a snapshot of the demographic characteristics of the region;
- ▶ identifies trends in economic indicators, such as employment and business entries and exits;
- ▶ describes the structure of the economy including trends in key industries such as mining, construction and agriculture;
- ▶ estimates the potential economic impacts (e.g. employment and economic output) of the Project on the local and regional economy; and
- ▶ outlines opportunities for local industry and employment opportunities for local people including Indigenous people.

19.2 Existing Environment

19.2.1 Demographic Profile

It is assumed that development of the Project will affect the economies of:

- ▶ the Katherine region¹ comprising the Local Government Areas of Katherine, Victoria-Daly and Roper Gulf Shires;
- ▶ the townships of Katherine and Pine Creek; and
- ▶ the Northern Territory.

The population of the Katherine region was 21,379 in 2011 (ABS 2012). The population increased from 20,458 persons in 2001, an increase of 5%, or an average annual growth rate of 0.5% (Figure 19-1).

¹ The Katherine region is defined as the Katherine Statistical Area Level 3 as used by the Australian Bureau of Statistics. This statistical region includes the Local Government Areas of Katherine, Roper Gulf Shire and Victoria-Daly Shire. The Katherine region for the purposes of the economic assessment is therefore broader than the Katherine region outline in the demographic profile presented in the social impact assessment (Chapter 7).

For comparative purposes, the population of the Northern Territory has increased at an average rate of 1.1% per annum between 2001 and 2011.

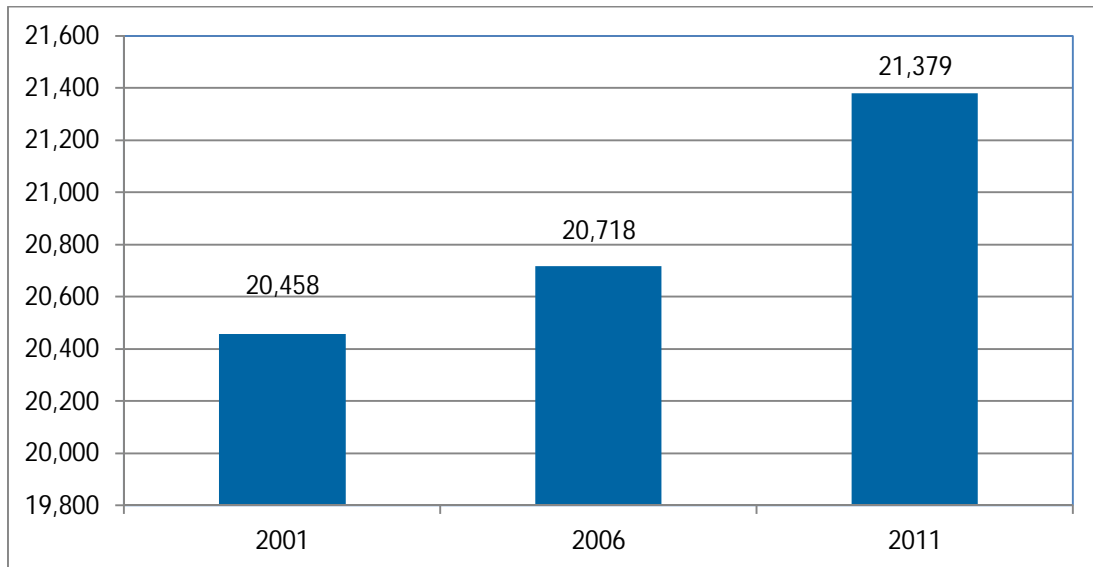


Figure 19-1 Katherine Region Historical Population Growth 2001-2011

Source: Appendix F

The Katherine region is home to a comparatively high proportion of Indigenous persons. In 2011, 9,121 people identified themselves as being Aboriginal, Torres Strait Islander or both. This represents approximately 43% of the total population (ABS 2012). By comparison, in the same year, the proportion of people across the Northern Territory and the whole of Australia who identified themselves as being Aboriginal or Torres Strait Islander was approximately 25% and 2.5% respectively (ABS 2012a).

19.2.2 Labour Market

In 2011, there was an estimated 8,035 persons working in the Katherine region (ABS 2012b). This is up 513 persons from 7,522 in 2006.

The major industries in the Katherine region in 2011 were public administration (including the Department of Defence) and safety (24%), health care and social assistance (11%), agriculture, forestry and fishing (9%), education and training (9%) and retail trade (7%) (Figure 19-2).

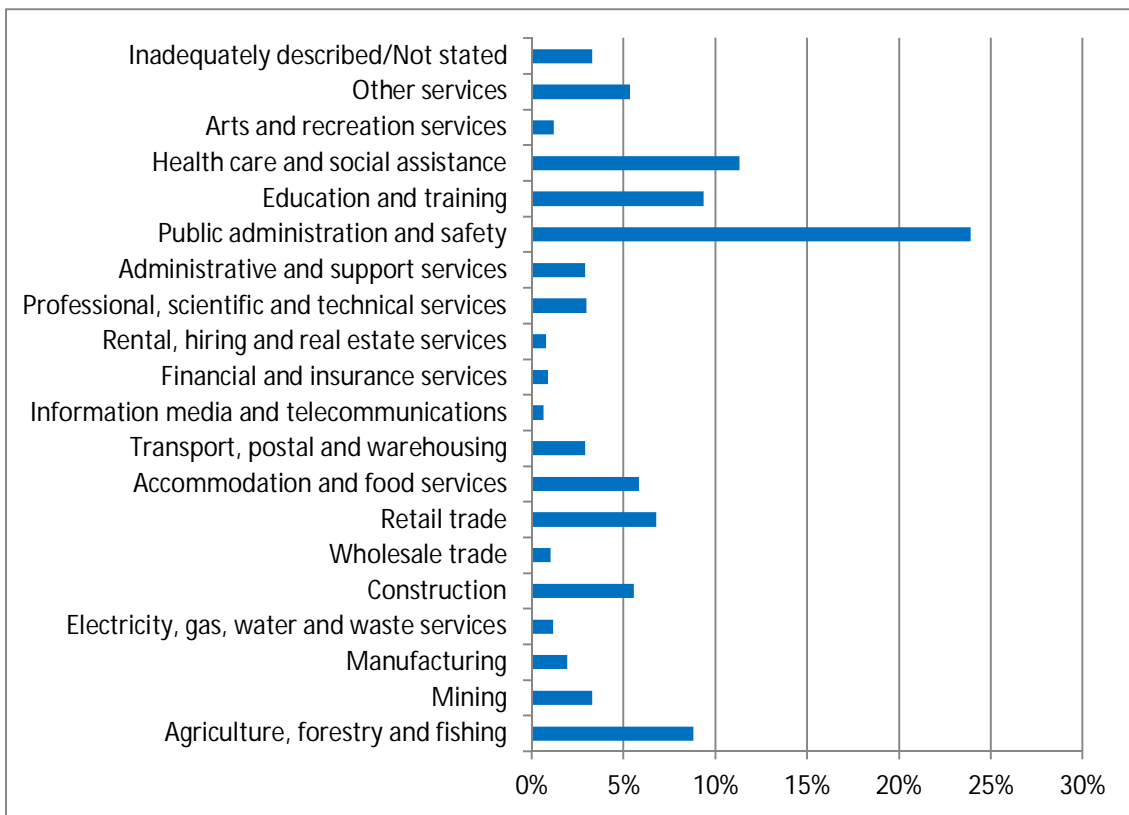


Figure 19-2 Proportion of People Employed in the Katherine Region

Source: ABS (2012b)

Figure 19-3 shows the dominance of public administration (including the Department of Defence) and the safety sector as an employer in the Katherine region, although the total number of persons employed in the sector declined between 2001 and 2011. The health care and social assistance sector is the second largest sector in the Katherine region. Persons employed in the education and training, agriculture, forestry and fishing sectors have increased gradually between 2001 and 2011.

The accommodation, food services and retail trade sectors support a stable level of employment in the Katherine region. Katherine and surrounds are a popular destination for tourists who are drawn to the area due to its natural assets including Katherine Gorge.

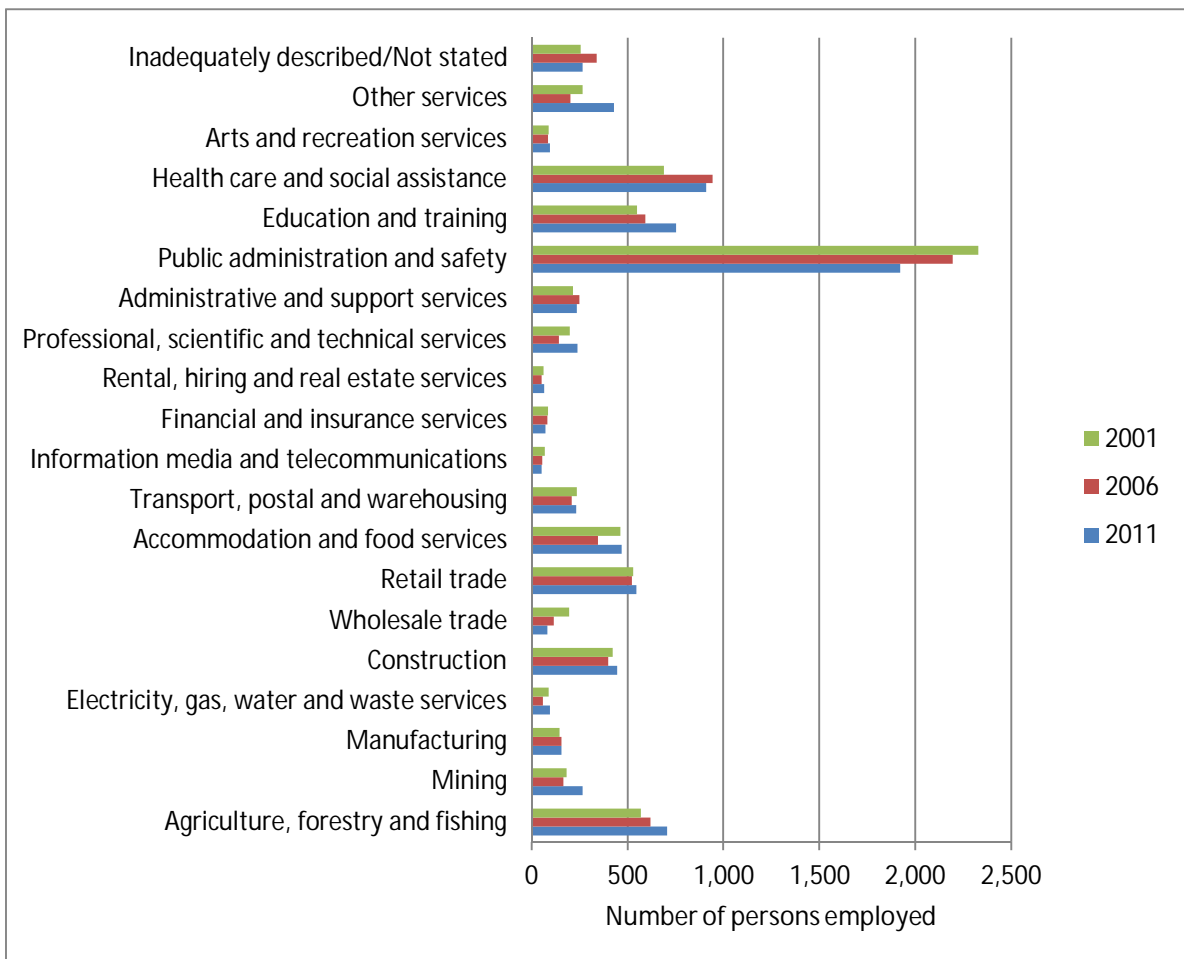


Figure 19-3 Employment by Industry – Katherine Region – 2001, 2006 and 2011

Source: ABS (2012b)

The unemployment rate in the Katherine region followed the general trend of the Northern Territory and declined between 2001 and 2006. Between 2006 and 2011, the unemployment rate in the Katherine region increased markedly from 5.3% in 2006 to 8.7% in 2011 (Figure 19-4). At 8.7%, the unemployment rate in Katherine was higher than that of the Northern Territory (5.1%) and Australia (5.6%) in 2011 (ABS 2012).

Median personal and household income levels have been rising at a steady rate in the Katherine region between 2001 and 2011. During this time, median personal incomes have risen at an average rate of 7% per annum while median household incomes have risen at an average annual rate of 5% per annum (Figure 19-5).

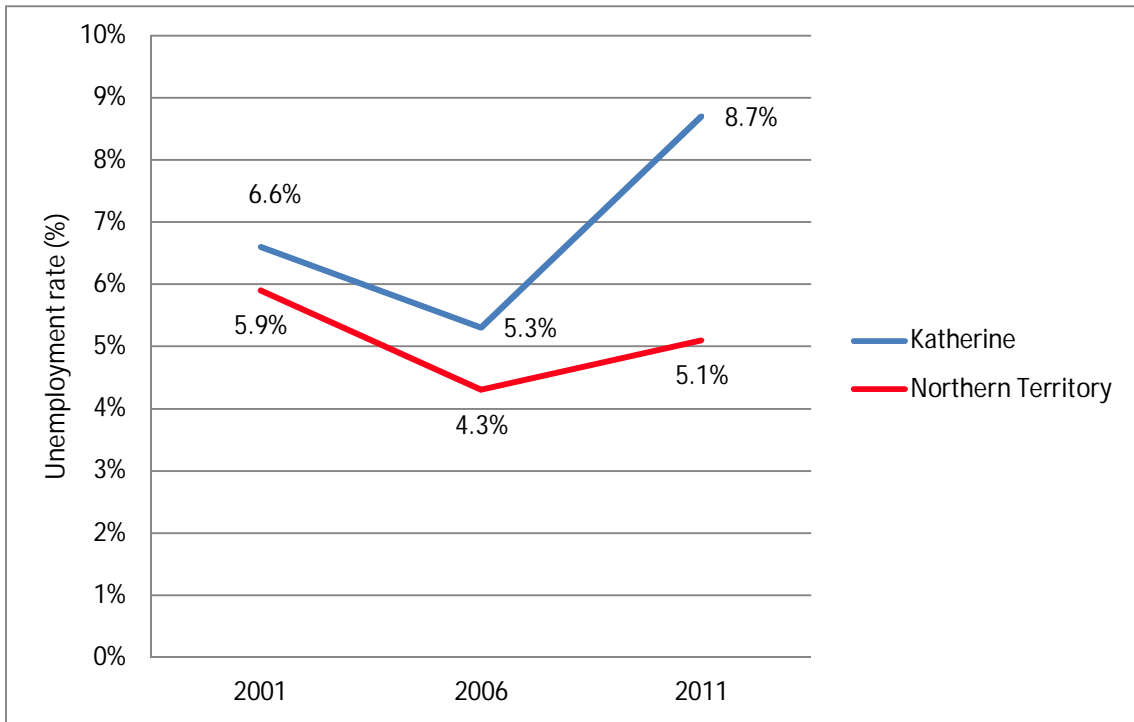


Figure 19-4 Unemployment Rate – Katherine and Northern Territory – 2001 - 2011

Source: ABS (2012b)

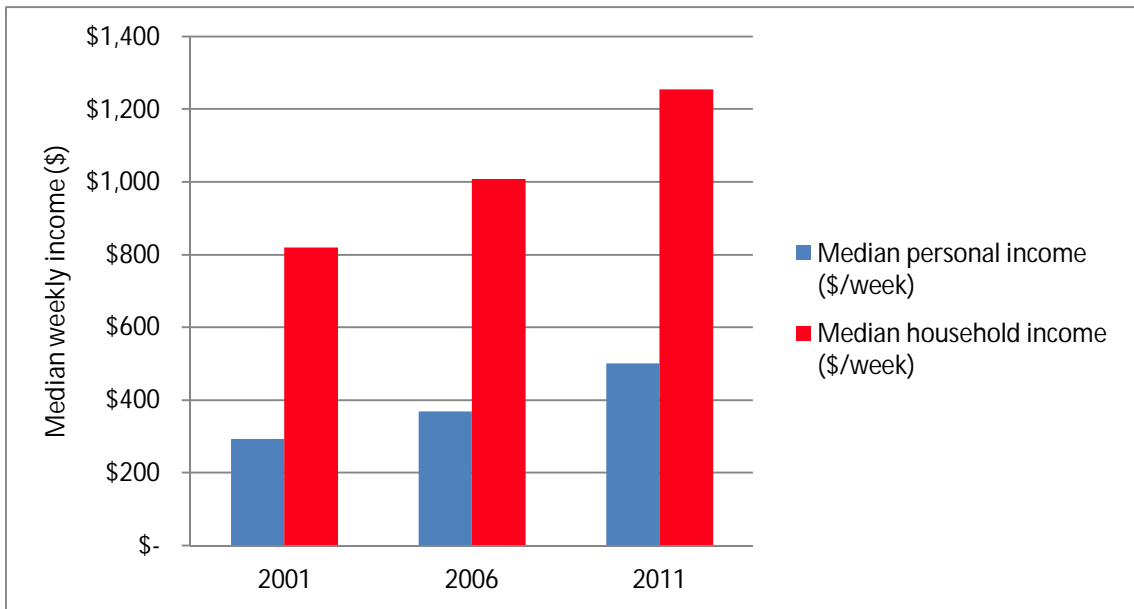


Figure 19-5 Median Income - Katherine Region - 2001 - 2011

Source: ABS (2012b)

19.2.3 Economic Baseline

Economic output and trends

Gross Regional Product (GRP)² is an indicator of regional economic performance and Gross State Product (GSP) is the state / territory equivalent. They can be used to demonstrate the size and make-up of an economy.

The Northern Territory Government reports that the GRP of the Katherine region in 2006 was \$1.12 billion³. This represented 7.9% of the total GSP of the Northern Territory in 2006 (\$14.2 billion) (NTG 2008a).

The top six sectors in term of contribution to the GRP of the Katherine region in 2006 (NTG 2008a) were:

- ▶ mining (\$270 million);
- ▶ government administration and defence (\$145 million);
- ▶ agriculture, forestry and fishing (\$73 million);
- ▶ health and community services (\$68 million);
- ▶ construction (\$57 million); and
- ▶ education (\$40 million).

In 2006, the mining industry was a key contributor to economic output in the Katherine region, primarily due to the McArthur River Zinc Mine located 65km south-west of Borroloola. The mine commenced operations in 1995 and is estimated to produce zinc and lead through to 2027 (McArthur River Mining 2013). Other smaller mining operations operating in the Katherine region include limestone and gravel.

Key primary industries in the Katherine region include pastoral activity (predominantly cattle), horticulture, and dryland farming (NTG 2013).

Residential and non-residential construction activity is also a key industry in terms of contribution to GRP and to employment.

GSP for the Northern Territory has been increasing gradually since 2004 at an average annual rate of 4% (Figure 19-6).

Business Counts

The construction and agriculture, forestry and fishing sectors were the dominant sectors in terms of businesses in Katherine in June 2011 (Figure 19-7).

² Gross Regional Product is a measure of the market value of all final good and services produced within a region in a given period of time.

³ This is the most recent data available.

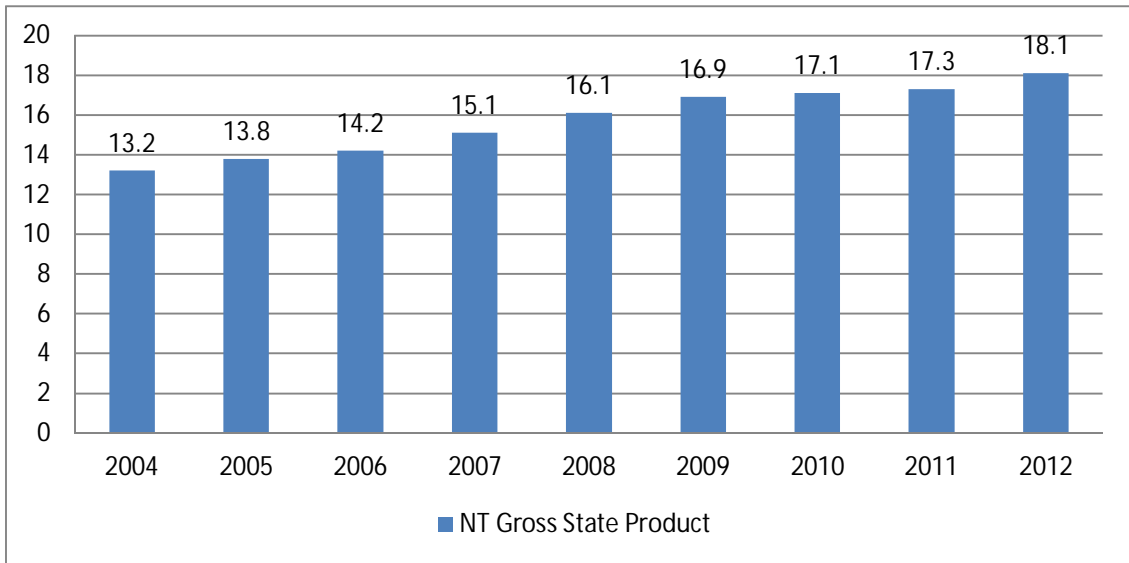


Figure 19-6 Northern Territory Gross State Product (\$billions) (2004 – 2012)

Source: ABS 2012c, Chain volume measures, denominated in 2011 dollars

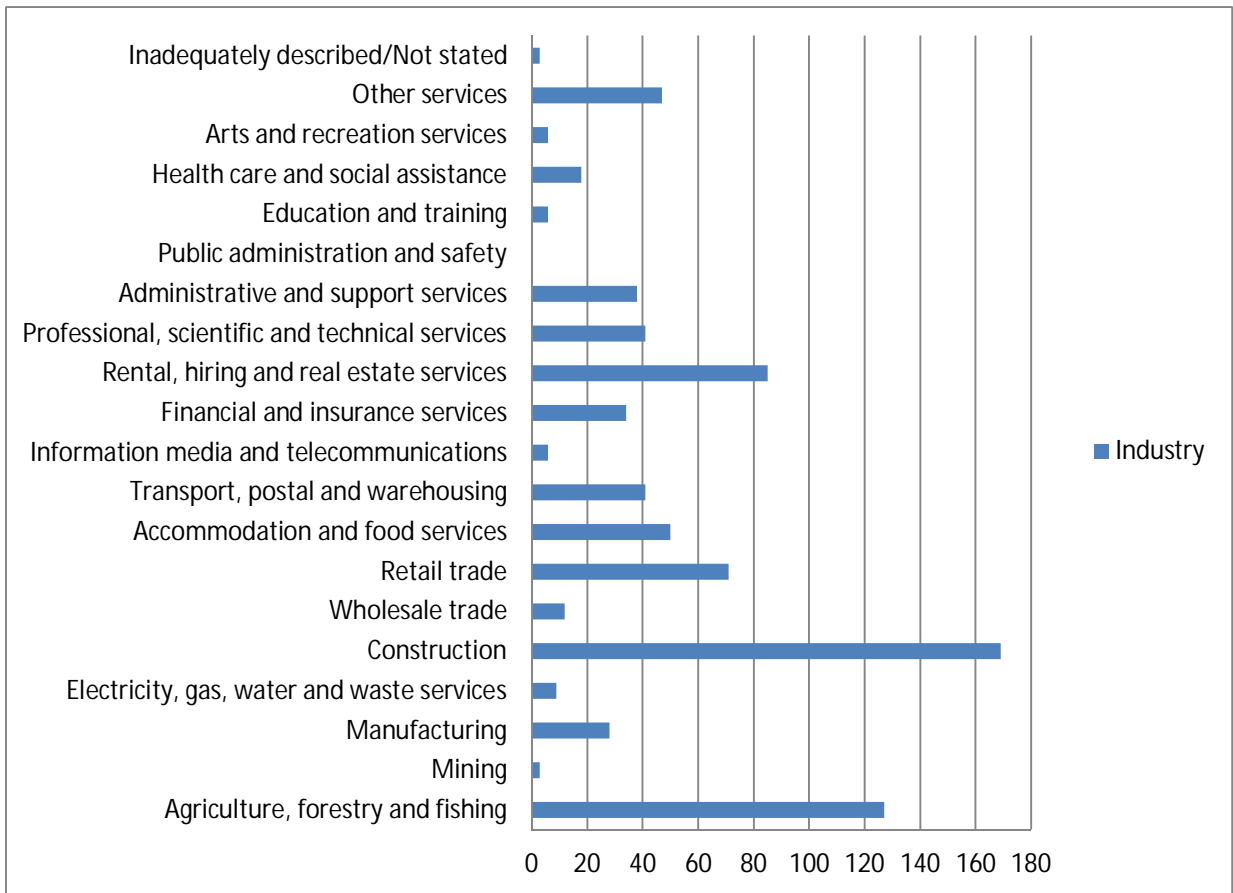


Figure 19-7 Business Counts by Sector – Katherine – June 2011

Source: ABS 2012d

The number of new businesses entering the Katherine region has been steady between 2008 and 2011. At the same time, the number of business exits in the Katherine region declined slightly between 2008 and 2011 (Figure 19-8). The net result is a slight increase in the number of businesses in the Katherine region between 2008 and 2011 from 864 to 911 (ABS 2012c).

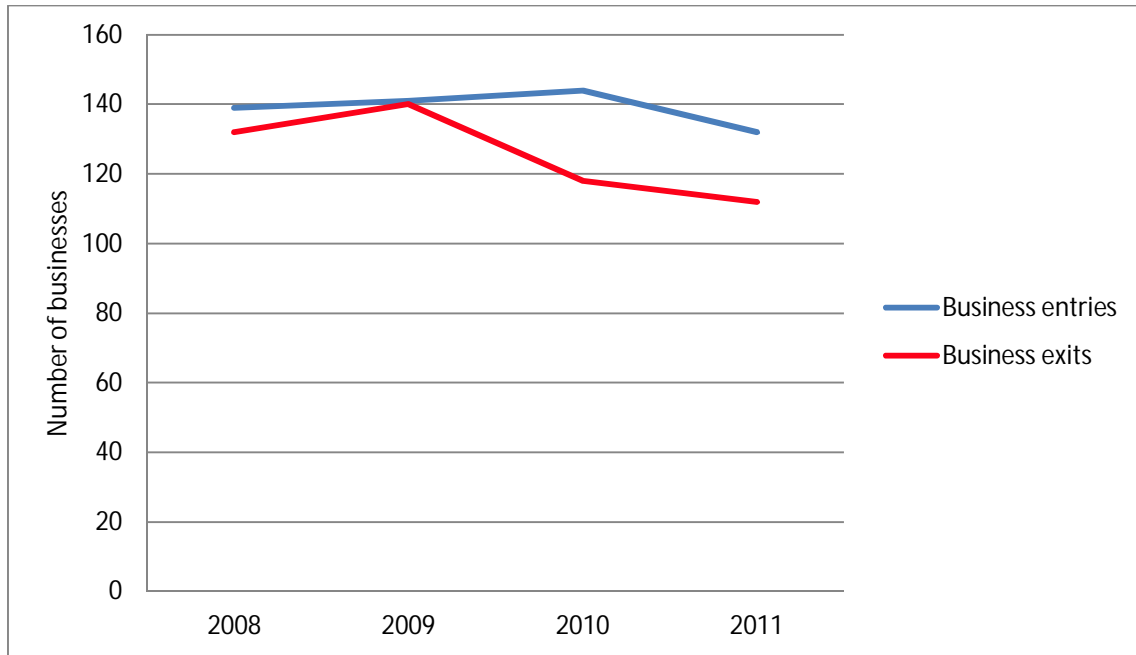


Figure 19-8 Business Entries and Exits – Katherine – 2008 - 2011

Source: ABS 2012c

19.2.4 Property Values

Median house values have risen by 22% in Katherine in the four years between 2009 and 2013. Much of this rise occurred between early 2009 and mid-2010. Since mid-2010, the median house price in Katherine has been flat. Between February 2012 and February 2013, the median house price in Katherine fell 3.5% (Property Observer 2013) (Figure 19-9).

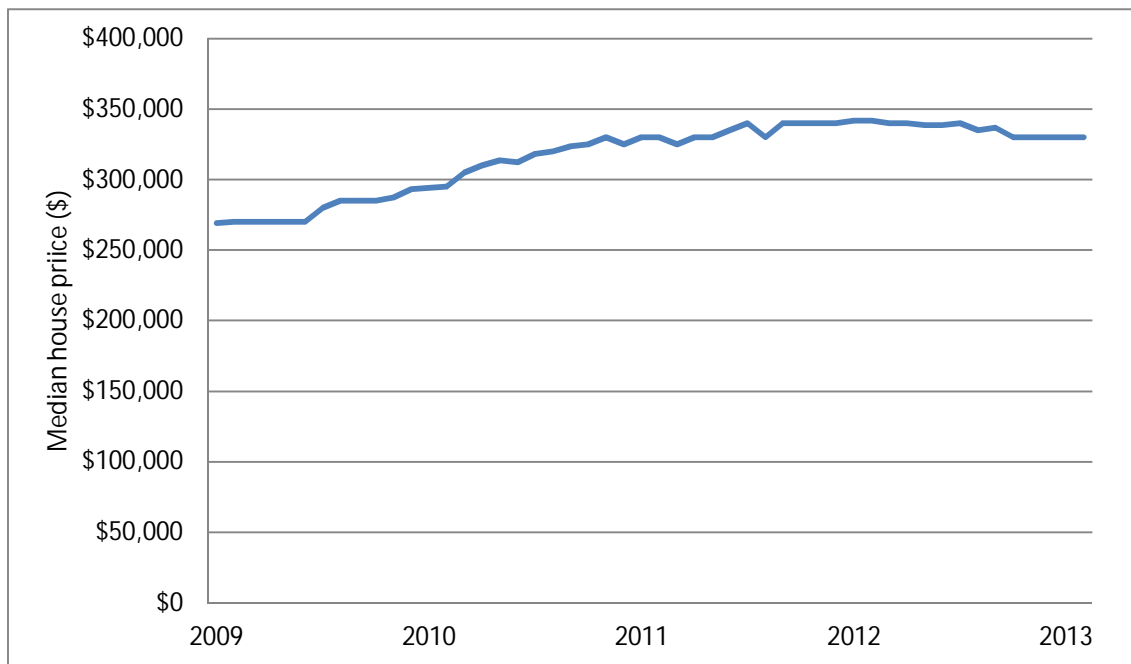


Figure 19-9 Median House Prices – Katherine – 2009 – 2013

Source: Property Observer 2013

19.3 Economic Modelling

19.3.1 Methodology

The economic model requires the economic baseline to be set. Potential economic impacts (positive and negative) are then assessed against the baseline. Setting the economic baseline requires the collection, analysis and presentation of data for the Katherine region and the Northern Territory - the regions where the mine and its infrastructure are expected to have the greatest impact. This gives an indication of the region's general economic profile, conditions and trends.

The economic baseline is for the Katherine region (section 19.2). More detailed, local-level analysis has been provided for the Katherine Local Government Area in the social impact assessment (Chapter 7, Appendix F).

19.3.2 Input-Output Analysis

The economic impacts of the Project on the regional and Northern Territory economy have been assessed for the construction and operations phases of the Project.

The estimates of economic impact are based on the use of the input-output (I-O) method. I-O analysis provides a numerical picture of the size and shape of the economy and its essential features. Interrelationships between sectors and the relative importance of the individual sectors can then be described. The I-O model can then estimate economic impacts arising from a proposed project, including estimating industry multipliers and flow-on effects.

The economic impact of the Project is measured by the contribution of the Project to:

- ▶ GRP – a measure of the value of a region's outputs minus the cost of inputs. This measures the net contribution of the Project to the relevant economies (i.e. the Katherine region and Northern Territory); and
- ▶ employment - identifies the number of Full Time Equivalent (FTE) persons engaged in work within a region. In this assessment, employment is measured by place of remuneration rather than place of residence.

19.3.3 Economic Indicators

Economic indicators provide a picture of economic activity in a region resulting from a specific activity, and can be considered at two levels:

- ▶ direct / initial impacts - identify the change in final demand or level of economic activity generated by the development; and
- ▶ indirect / flow-on impacts – are the total of:
 - production induced impacts – purchasing goods and services from other industries and employment;
 - consumption induced impacts – additional output and employment stemming from the consumption of additional goods and services by households that are the result of increased wages or employment in the development and associated activities; and
 - offset consumption effects – the lost consumption by the local unemployed before they take a new job and the lost consumption of those who have lost a job before they start receiving welfare payments.

Direct and indirect flows into affected economies are summed in order to ascertain the total impact. Economic impacts (GRP and employment) are assessed at the regional and territory levels during both the construction and operations phases of the mine.

19.3.4 Assumptions

In addition to the assumptions embodied in the I-O model itself (Appendix W), a number of other general assumptions were made in estimating the economic impacts:

- ▶ the impacts were measured using models that represent the structure of the regional and Northern Territory economies for the year in which the most recent data are available (2011 / 2012). To allow for improvements in primary factor productivity in these economies over time, an across-the-board (all sectors) labour productivity improvement rate of 1% per annum for subsequent years of the construction period has been incorporated into the modelling; and
- ▶ in some cases, the impact of a newly created job and associated income is partially offset by the fact that someone who was previously receiving unemployment benefits is no longer doing so. To calculate this effect requires estimates of the parameter rho (Appendix W). Rho represents the proportion of new jobs that are likely to be filled by previously unemployed locals. For the construction phase, it was estimated to be 50% for the local area and 60% for the Northern Territory as a whole.

19.4 Economic Impact

19.4.1 Economic Impact - Construction Phase

The Project will involve capital expenditure of approximately \$1.5 billion in total during the construction phase. Construction is anticipated to commence in the first quarter of 2014 and take two years, including six months pre-production. Expenditure on construction is expected to continue until 2030 but at a significantly lower level from 2016 onwards. Table 19-1 provides an extract of expenditure data from Appendix W.

Over the life of the mine, it is estimated that 11% of the capital investment for the construction of the mine will occur in the Katherine region and 32% elsewhere in the Northern Territory. The remaining capital expenditure (58% of the total) will occur outside the Northern Territory.

Table 19-1 Direct Expenditure – Construction Phase (\$M)

Year	2014	2015	2016...	2018...	2023...	2030	Total ⁴
Katherine region	54.5	55.8	9.6	8.0	4.0	3.1	162.8
Elsewhere in the NT	164.1	168.1	28.9	24.0	12.0	9.3	489.9
Outside the NT	296.8	304.1	52.2	43.5	21.7	16.8	886.1
Total	515.4	528.0	90.7	75.5	37.7	29.2	1,538.8

Net Contribution to the Regional Economy

Estimates of GRP for the Katherine region and elsewhere in the Northern Territory, and of GSP for the Northern Territory as a whole during the construction period are provided in Table 19-2. For presentation purposes, the years 2024 to 2029 have been omitted.

For the Katherine region, during the construction phase:

- ▶ the direct and flow-on GRP in the Katherine region is expected to be around \$27.1 million in 2014 and \$27.8 million in 2015;
- ▶ GRP total impact is expected to fall to \$4.8 million in 2016 and then gradually decline;
- ▶ GRP will be boosted by around 2.9% in 2015 (the peak year) based on current (2011 / 2012) regional total GRP (\$957 million).

For the Northern Territory, during the construction phase:

- ▶ Total GSP of \$269 million will be generated in the first two years;
- ▶ the GSP total impact is expected to fall to \$23.4 million in the third year and remain below this across the remainder of the construction phase;
- ▶ in the context of the Northern Territory's GSP in 2011 / 2012 (\$18.6 billion) (ABS 2012b), the estimated GSP total impact in 2015 (the peak year) would represent an increase of 0.7%.

⁴ Does not include expenditure data years 2024-2029

Table 19-2 Economic Impact of the Mine – Construction Phase

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023...	2030
Katherine region GRP (\$M)											
Direct	18.5	19.0	3.3	0.6	2.7	1.0	0.9	1.2	0.8	1.4	1.0
Flow-on	8.6	8.8	1.5	1.3	1.3	0.5	0.4	0.6	0.4	0.6	0.5
Total	27.1	27.8	4.8	0.9	4.0	1.5	1.3	1.8	1.2	2.0	1.5
Elsewhere in the Northern Territory GRP (\$M)											
Direct	62.7	64.2	11.0	2.0	9.2	3.5	3.0	4.0	2.7	4.6	3.5
Flow-on	43.1	44.1	7.6	1.4	6.3	2.4	2.1	2.8	1.9	3.2	2.4
Total	105.8	108.4	18.6	3.4	15.5	5.9	5.1	6.8	4.6	7.7	5.9
Total Northern Territory GSP (\$M)											
Direct	81.2	83.2	14.3	2.6	11.9	4.6	3.9	5.2	3.5	6.0	4.6
Flow-on	51.7	52.9	9.1	1.7	7.6	2.9	2.5	3.3	2.3	3.8	2.9
Total	132.9	136.1	23.4	4.3	19.5	7.4	6.4	8.6	5.8	9.8	7.4

Employment

Employment is an important indicator both of regional economic activity and the welfare of regional households.

Table 19-3 shows total (direct plus flow-on) employment in the Katherine region, elsewhere in the Northern Territory, and for the Northern Territory as a whole as a result of the construction phase of the Project. Employment numbers are expressed in FTE terms.

For the Katherine region, during the construction phase:

- ▶ total (direct plus flow-on) employment is expected to be 242 FTE in 2014 and peak at 245 FTE in 2015;
- ▶ employment declines to 42 FTE in 2016 as construction expenditure falls, and declines further in subsequent years;
- ▶ the direct plus flow-on employment in the peak year (2015) is a 3.3% increase of the estimated employment (FTE) for the Katherine region for 2011 / 2012 (7,400 FTE).

For the Northern Territory, during the construction phase:

- ▶ direct and indirect employment is expected to increase to 859 FTE in 2015, the peak year. This represents a 0.8% increase in employment over 2011 / 2012 levels (112,000 FTE).

Table 19-3 Employment Impact of the Mine – Construction Phase

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023..	2030
Katherine region employment (FTE)											
Direct	174	177	30	5	25	9	8	10	7	12	8
Flow-on	67	68	12	2	9	4	3	5	3	4	3
Total	242	245	42	7	34	13	11	15	10	16	12
Elsewhere in the Northern Territory employment (FTE)											
Direct	380	385	66	12	53	20	17	23	15	25	18
Flow-on	225	229	39	7	32	12	10	14	9	15	11
Total	605	614	104	19	85	32	27	37	24	40	29
Total Northern Territory employment (FTE)											
Direct	554	562	96	17	78	30	25	33	22	37	27
Flow-on	293	297	51	9	41	16	13	19	12	19	14
Total	847	859	146	26	119	45	38	52	34	56	41

19.4.2 Economic Impact - Operations Phase

Capital Expenditure

The economic impact analysis of the operational expenditure of the mine was conducted using the operational expenditure profile presented in Table 19-4. For presentation purposes, the years 2026 to 2029 have been omitted.

Table 19-4 Direct Expenditure - Operations Phase (\$M)

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025...	2030
Katherine region	53.1	58.5	65.5	65.9	66.0	65.3	62.8	59.7	61.5	60.8	0.3
Elsewhere in the NT	119.6	131.6	147.4	148.3	148.5	146.9	141.4	134.2	138.4	136.7	0.6
Outside the NT	93.0	102.4	114.6	115.4	115.5	114.3	110.0	104.4	107.6	106.3	0.4
Total	265.7	292.5	327.5	329.6	330.0	326.5	314.2	298.3	307.5	303.8	1.3

The key trends for the operating phase are:

- ▶ additional expenditure will begin in 2016, increase until it reaches a maximum in 2020 (around \$330 million) and gradually decline as production of the mine winds down;
- ▶ total operational expenditure of around \$330 million in 2020, at full production, will comprise mining costs (\$165 million), processing costs (\$164 million) and water treatment plant costs (\$1 million); and

- ▶ there will be 20% of operating expenditure spent in the Katherine region, 45% will be spent elsewhere in the Northern Territory and 35% will be spent outside the Northern Territory.

Net Contribution to the Regional Economy

For the Katherine region, in 2020, at full production, the direct and flow-on GRP is expected to be \$40.6 million, which represents 4.2% of the current (2011 / 2012) regional total GRP (\$957 million) (Table 19-5).

For the Northern Territory, GSP of around \$146 million in 2020 will be generated. This represents 0.8% of the current Northern Territory's GSP in 2011 / 2012 (\$18.6 billion) (ABS 2012b).

Table 19-5 Economic Impact of the Mine – Operating Phase

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025...	2032
Katherine region GRP (\$M)											
Direct	25.6	28.2	31.6	31.8	31.8	31.5	30.3	28.8	29.6	29.3	0.1
Flow-on	7.0	7.8	8.7	8.7	8.7	8.7	8.3	7.9	8.2	8.1	0.1
Total	32.7	36.0	40.3	40.5	40.6	40.1	38.6	36.7	37.8	37.3	0.2
Elsewhere in the Northern Territory GRP (\$M)											
Direct	58.7	64.7	72.4	72.9	72.9	72.2	69.5	65.9	68.0	67.2	0.3
Flow-on	26.4	29.0	32.5	32.7	32.7	32.4	31.2	29.6	30.5	30.1	0.1
Total	85.1	93.7	104.9	105.6	105.7	104.5	100.6	95.5	98.5	97.3	0.4
Total Northern Territory GSP (\$M)											
Direct	84.3	92.9	104.0	104.7	104.7	103.7	99.8	94.7	97.6	96.5	0.4
Flow-on	33.4	36.8	41.2	41.4	41.4	41.1	39.5	37.5	38.7	38.2	0.2
Total	117.7	129.7	145.2	146.1	146.2	144.8	139.3	132.2	136.3	134.7	0.6

Employment

For the Katherine region, in 2020, at full production, total (direct plus flow-on) employment is expected to be 139 FTE which represents a 1.9% increase of the estimated employment (FTE) for the Katherine region for 2011 / 2012 (7,400 FTE) (Table 19-6).

For the Northern Territory, direct and indirect employment is expected to be 426 FTE in 2020 which represents a 0.4% increase in employment over 2011 / 2012 levels (112,000 FTE).

Table 19-6 Employment Impact of the Mine – Operations Phase

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025...	2032
Katherine region employment (FTE)											
Direct	61	67	74	74	73	72	68	64	65	64	0
Flow-on	56	61	67	67	66	65	62	58	59	58	0
Total	117	127	141	141	139	136	130	122	124	122	0
Elsewhere in the Northern Territory employment (FTE)											
Direct	102	111	123	123	122	119	114	106	108	106	0
Flow-on	138	151	167	167	165	162	154	144	147	144	1
Total	240	262	290	290	287	281	268	250	255	250	1
Total Northern Territory employment (FTE)											
Direct	163	178	197	197	195	191	182	170	173	170	0
Flow-on	194	212	234	234	231	227	216	202	206	202	1
Total	357	390	431	431	426	418	398	372	379	372	1

19.4.3 Value of Production / Exports

Vista Gold estimates total gold production of 4.81 million ounces over the 13 year operations phase of the Project. This equates to an average production estimate of 370,000 ounces of gold per annum.

Assuming a gold price of \$1,400 AUD per ounce, the value of this production is estimated at approximately \$6.7 billion (undiscounted). At \$1,300 AUD per ounce, the value of this production is estimated at \$6.3 billion (undiscounted). The value of production is revenue but not profit, because the calculation does not consider project expenditure.

19.4.4 Royalties and Taxes

It is estimated that the Project will generate the following taxes and royalty payments:

- ▶ significant (Commercial-In-Confidence) royalty payments to the local indigenous community (the Jawoyn people);
- ▶ \$277 million in royalty payments to the Northern Territory Government; and
- ▶ \$469 million in taxation payments to the Australian Government.

19.4.5 Markets for Gold Produced at Mt Todd

Major markets for Australian produced gold include Asia (particularly India) and the United Kingdom. The Australian Department of Foreign Affairs and Trade report that in 2010, India and the United Kingdom accounted for approximately 73% of Australian gold exports (DFAT 2011). Other export destinations for Australian produced gold include Thailand, Singapore and Hong Kong.

Demand for gold includes:

- ▶ consumptive uses including use in jewellery, electronics and other industrial applications; and
- ▶ financial uses where central banks purchase and hold gold as part of a suite of assets that make up their reserves. Gold provides diversification to reserve portfolios and is often seen as a safe haven during times of economic uncertainty and devaluation of more traditional reserve assets such as the US dollar and the euro (World Gold Council 2013).

19.4.6 Opportunities for Skills Development

A range of skills and trades will be required during construction and operation of the mine including:

- | | |
|---|--|
| ▶ Construction Manager and other specialist mine managers; | ▶ tradespeople (e.g. carpenters, electricians and boilermakers); |
| ▶ engineers; | ▶ mining labourers; |
| ▶ labourers; | ▶ mining engineers, geologists and surveyors; |
| ▶ civil construction personnel; | ▶ truck drivers; |
| ▶ machine operators; | ▶ stationary and mobile plant operators; |
| ▶ mobile plant operators; | ▶ accountants and administrative staff; |
| ▶ mining Superintendent and support staff; | ▶ health, safety and environment personnel; and |
| ▶ electrical superintendents and instrumentation technicians; | ▶ specialist support staff including Human Resources personnel. |

Vista Gold intends to develop training and employment policies and targets. It is intended that training will be done in collaboration with local and Northern Territory Government agencies.

Any employment and training opportunities that the Project can provide to local residents should create an ongoing benefit to the local community in terms of improving the skill base of the local community. The extent to which this potential benefit is realised will depend on the extent to which local residents are employed either in the construction or operational phases of the Project and the extent to which these people remain in the Katherine region once mine operations have ceased.

19.4.7 Local Industry and Indigenous Workforce Participation

This section addresses the opportunities for both local industry and Indigenous workforce participation in the construction and operational phases of mining.

The I-O analysis estimates that the Project is expected to employ up to 554 direct workers during construction and up to 197 direct workers once the mine is operational. The I-O analysis also estimates significant opportunities in flow-on employment with up to 293 flow-on jobs across the Northern Territory during construction and up to 234 during peak operations. Many of these opportunities will occur locally.

The Project is expected to require a range of skills, as described above, and provide for a range of employment opportunities. Vista Gold has specified a preference for a local, residential workforce.

Vista Gold is aware of local and regional recruitment / employment agencies and will consult with them prior to the start of operations in order to facilitate local and regional employment opportunities. Recruitment will commence approximately 6 months before the start of operations, and will be ongoing during operations as the workforce requirements evolve. Vista Gold will develop human resource policies tailored for the residential workforce and to attract and retain local and regional employees.

19.4.8 Indigenous Economic Development and Wider Regional Development

Approximately 43% of the Katherine region population are Indigenous. The mine site and tenements are located on freehold land owned by the Jawoyn people. Vista Gold has an agreement in place to support local indigenous employment prior to and once the mine becomes operational (Vista Gold 2013a). Vista Gold has also advised that they will develop an Indigenous employment strategy under the Jawoyn Partnership Agreement (Appendix F).

Vista Gold has been, and will continue to be, engaged in discussions with the local community, including the local business community. For example, in early June 2013, Vista Gold participated in the Katherine Regional Mining and Exploration Forum. The forum provided an opportunity to showcase the importance of the mining sector to the Katherine region. The forum also provided an opportunity for discussions between local business and staff of Vista Gold, with a focus on opportunities for possible joint ventures (Vista Gold 2013a).

19.4.9 Negative Impacts or Potential Synergies with Existing Land Uses

The mine site has existing environmental and water quality issues that require ongoing management. Since acquiring the brownfield mine in 2006, Vista Gold has spent approximately \$9 million on 'environmental stewardship' activities designed to treat water quality issues related to previous operations at the mine. This expenditure, and future environmental stewardship activities, provides a benefit to the local and regional community and the environment in the form of improved environmental outcomes and benefits to other land uses in the surrounding region. This includes the agricultural sector and the nearby Werenbun Aboriginal community.

19.4.10 Socio-economic Impacts

Development of the Project is estimated to deliver considerable economic benefits to the region in the form of direct and indirect employment opportunities and expenditure. A detailed analysis of social impacts can be found in Appendix F.

19.4.11 Contribution to Community Benefit

Under the *Mineral Royalty Act* 1982, the Northern Territory Government collects royalty payments "in respect of the profit derived from minerals taken or produced". The royalty scheme aims to encourage exploration and development of the Northern Territory's mineral resources whilst "compensating the Northern Territory community for allowing the private extraction of the Northern Territory's non-renewable resources".

The Project is expected to generate approximately \$277 million in royalty payments to the Northern Territory Government. Some of this revenue could fund community infrastructure across the Northern Territory.

Generation of employment and economic output in the Katherine region could in-turn lead to investment in new community infrastructure which has a lasting legacy in the local area.

Vista Gold is working with local and Northern Territory Government to identify and address key infrastructure issues. For example, Vista Gold will encourage a 'whole of government' approach to develop a strategy to provide housing and accommodation options particularly during the operations phase.

19.4.12 Communication with Local Business and Residents

Vista Gold will incorporate the following strategies to inform local businesses and residents of business and employment opportunities:

- ▶ advertise employment opportunities through a variety of media including local and regional print media (e.g. NT News, Katherine Times) and online (e.g. the Mt Todd gold mine website); and
- ▶ continue dialogue with the local community and participate in local business development forums such as the recent Regional Mining and Exploration Forum held at Katherine.

19.4.13 Monitoring

Development of the Project is expected to have a range of positive economic impacts for communities in the Katherine region and in the Northern Territory more broadly. Economic benefits include:

- ▶ job creation;
- ▶ increased income benefits; and
- ▶ investment in residential and non-residential buildings.

Socio-economic indicators or parameters that should be monitored on an ongoing basis in order to gain an understanding of actual benefits include:

- ▶ employment by industry – particularly in the mining sector but also in supporting sectors including the construction sector;
- ▶ unemployment rates – it is expected that the unemployment rate in the Katherine region would decline as a result of job creation through the Project;
- ▶ median personal and household income levels – a significant new industry in the Katherine region is expected to have a positive impact on income levels in the region; and
- ▶ value of residential and non-residential approvals – it is expected that the Project will generate direct and indirect expenditure in residential and non-residential property as income levels rise and unemployment falls.

19.5 Summary of Impacts

An economic assessment involving I-O analysis has been undertaken for the Project (Appendix W). Key findings are presented in Table 19-7.

Table 19-7 Summary of Economic Impacts

	Construction Phase		Operations Phase	
	Life of Mine	Peak Year -2015	Life of Mine	Peak Year - 2020
Katherine Region				
Direct expenditure (\$M)	163 (11%)	56 (11%)	725 (20%)	66 (20%)
Gross Regional Product (\$M) (direct and flow on)	81 (20%)	27.8 (20%)	446 (28%)	40.6 (28%)
Employment (direct and flow on)	704 FTE person years ⁵	245 FTE ⁶ (29%)	1,503 FTE person years	139 FTE (33%)
Northern Territory (incl. Katherine Region)				
Direct expenditure (\$M)	657 (42%)	224 (43%)	1,600 (44%)	215 (65%)
Gross State Product (\$M) (direct and flow on)	397	136	1,600	146
Employment (direct and flow on)	2,462 FTE person years	859 FTE	4,605 FTE person years	426 FTE
All Regions⁷				
Direct expenditure (\$M)	1,500	528	3,600	330

Vista Gold estimates total gold production of 4.81 million ounces over the 13 year operations phase of the Project. This equates to an average production estimate of 370,000 ounces of gold per annum.

Assuming a gold price of \$1,400 AUD per ounce, the value of this production is estimated at approximately \$6.7 billion (undiscounted). At \$1,300 AUD per ounce, the value of this production is estimated at \$6.3 billion (undiscounted). The value of production is revenue but not profit, because the calculation does not consider project expenditure.

It is estimated that the Project will generate the following taxes and royalty payments:

- ▶ significant (Commercial-In-Confidence) royalty payments to the local indigenous community (the Jawoyn people);
- ▶ \$277 million in royalty payments to the Northern Territory Government; and
- ▶ \$469 million in taxation payments to the Australian Government.

⁵ FTE person years are not total jobs. Rather, they are FTE per annum aggregated over the life of the construction / operations phase.

⁶ FTE – Full Time Equivalents

⁷ Includes outside the Northern Territory