

Independent Travellers in the North Kimberley

Benefits, Impacts and Management Challenges

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Report 1: Benefits and costs of tourism for remote communities: Case study for the Carpentaria Shire in north-west Queensland

Report 2: The relationship between landholders and tour operators. An investigation of the areas adjoining the Gibb River Road in the North Kimberley

Report 3: Independent Travellers in the North Kimberley: Benefits, Impacts and Management Challenges

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ABBREVIATIONS AND ACRONYMS

AADT	Average annual daily traffic
CALM	(Western Australia Department of) Conservation and Land Management
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DPI	(Western Australia) Department of Planning and Infrastructure
DT	(Western Australia) Department of Transport
GRR	Gibb River Road
ILC	Indigenous Land Council
KDC	Kimberley Development Commission
KLC	Kimberley Land Council
KR	Kalumburu Road
LCDC	Land Conservation District Committee
NP	National Park
NT	Northern Territory
TS-CRC	Tropical Savannas Co-operative Research Centre
WATS	Western Australia Travel Survey
WATC	Western Australian Tourism Commission

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EXECUTIVE SUMMARY

This report describes the findings of a research project, which investigated the benefits, impacts and management challenges that self-drive tourism in the North Kimberley creates.

The research complements two preceding studies, by Yuco Consultants (2003) on community impacts of tourism and by Greiner and Larson (2004), who profiled and analysed the relationship between landholders—as the prime providers of tourist facilities and services—and tourism, with specific focus on tour operators.

The research hypothesis asserted that *self-drive tourists*—who are referred to in this report as *independent travellers*—provide important economic opportunities for businesses and communities in the North Kimberley. However, they are also the major contributor to the perceived problems arising from tourism for the region, its communities and the landholders.

The investigation aimed to answer the following research questions:

1. Who are the self-drive tourists? Where do they come from? Why do they come? Where do they go and what do they do while in the region?
2. What are the economic benefits tourists generate and the (environmental) costs?
3. How can tourism infrastructure and management assist in maximising net benefit of tourism along the Gibb River Road?

The research was funded by the Tropical Savannas CRC and CSIRO Sustainable Ecosystems through the project *Community benefits from tourism*.

The approach adopted for the research included a number of methods:

- Literature search and review

- Data search and review
- Survey of independent travellers to the Gibb River Road (by self-administered reply-paid mail) during the tourist season 2004
- Compilation and analysis of results
- Consultation with government, non-governmental organisations, industry and individual stakeholders.

The report is structured into eight sections. Section 1 provides an introduction to the research. It defines the hypothesis and guiding research questions. It also provides geographical context and information on the Gibb River Road and independent travellers.

Section 2 describes the research methodology, with specific emphasis on the empirical components of the approach.

Section 3 provides a profile of independent travellers on the basis of 202 completed questionnaires, which represented 499 travellers. This includes their socio-demographic characteristics and motivations for visiting the North Kimberley.

The travellers are identified as adventure travellers, the majority domestic. Domestic visitors tend to be older than international visitors—mainly in their forties and fifties as opposed to twenties and thirties—but fewer than 20% of respondents were retired. In terms of household income respondents are relatively well off.

There are two key motivations for visiting the region. The prime motivation is to see and experience the scenic features, landscape and nature of the North Kimberley. The second motivation is to drive the Gibb River Road, which includes the promise of a four-wheel drive experience. Expectations of experiencing remoteness and wilderness, and having an adventure are important supporting motivations for visiting the North Kimberley. In the minds

of travellers, these notions are intrinsically linked with the image of the North Kimberley.

Section 4 provides an activity and satisfaction profile of independent travellers. Mean duration of stay in the North Kimberley (*not* including adjoining urban centres such as Broome, Derby, Kununurra and Wyndham) is eight days. The median is six days.

Of those respondents (78%) who travel the GRR past the Kalumburu Road turnoff, the preferred direction of travel direction is east to west. A smaller proportion of respondents focus on the western parts of the Kimberley only.

Respondents recorded a very high satisfaction rating with the destination and virtually all elements of the tourist product.

Section 5 identifies benefits and impacts of independent travellers. Mean daily spending while en route (i.e. *not* including major urban centres outside the study area) is between \$39 per visitor day for low-income travellers and \$79 per visitor day for retirees. The largest expense category is accommodation, followed by fuel, tours and meals.

Respondents provided an honest picture of activities that are considered in breach of traveller etiquette. Going to the toilet in the bush and camping outside licensed camping areas are the key offending behaviours.

Section 6 provides a comparative review of the tourist profile with other northern tourist destinations, specifically the Gulf of Carpentaria. It emerges that the tourist market to the North Kimberley differs in that it is a landscape-focused adventure market with little negative environmental impacts.

Section 7 provides a discussion of the results in relation to key aspects of destination management in the North Kimberley. The key outcomes are summarised below.

There was an overwhelming desire by the adventure travellers to the North Kimberley that the Gibb River Road should remain unsealed and maintained in a condition no better than that encountered by travellers during the 2004 season so as to maintain the adventure experience that travellers expect.

Bush camping formed part of the expectations and actions of adventure travellers who defined the tourist market in the North Kimberley. It had little to do with affordability or availability of accommodation facilities.

The majority of respondents did not see a need for additional basic facilities and services to be provided along the Gibb River Road. At the same time they overwhelmingly supported the notion that visitors should make a financial contribution to the provision and maintenance of any such facilities and services.

Section 8 offers concluding comments in answer to the research questions. It concludes by reaffirming the need for a holistic and integrated regional planning approach in the North Kimberley. Issues of visitor management, land management, infrastructure development and road maintenance/improvement are intrinsically interwoven. It also suggests that a broader perspective—considering the region's assets in the context of the whole-of-Kimberley, tropical savannas and beyond—could usefully inform visioning, planning and decision making for the North Kimberley.

Unless issues are considered in a holistic context, well-intended actions by one decision maker could easily have unplanned long-term consequences. Incremental growth and change in the absence of an appropriate management framework pose the key threats to the region.

This research provides the region with valuable information—based on systematically collected data—for consideration by decision makers and input into evidence-based planning.

1 INTRODUCTION

1.1 Research context

Across Australia's tropical savanna landscapes, tourism is an increasingly important source of income and employment for regional and remote communities. Conceptually, tourism is complementary to the traditional primary industries such as grazing, mining and fishing.

However, the benefits of tourism to the regional communities can be questionable if visitors spend little money while making heavy use of the region's natural and human resources, its infrastructure and community services. A recent case study for the Carpentaria Shire in north-west Queensland highlighted this dilemma (Greiner et al, 2004) and concluded that tourism has to be well planned and managed to ensure maximum benefits for host communities in savanna destinations.

The research presented here is funded by the Tropical Savannas Management Cooperative Research Centre (TS—CRC) and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) Sustainable Ecosystems. It is part of a suite of research projects which seek to support communities, government agencies and tourist bodies to promote, plan and manage tourism in ways that:

- Are based on factual knowledge of tourists and the benefits and costs of tourism;
- Provide advantages for the people in the tropical savannas;
- Promote sustainable tourism development; and
- Complement broader regional development strategies.

This publication reports on an investigation into the self-drive tourists who travel the Gibb River Road in the North Kimberley of Western Australia. The term *independent traveller* is used in this report as synonymous with self-drive tourist.

The research complements two previous studies into community issues and tourism (Yuco Consultants, 2003) and the relationship between landholders and tourism, with specific focus on access for and activities by tour operators (Greiner and Larson, 2004). The latter study specifically concluded that “a detailed understanding of the most important visitor segment to the North Kimberley, self-drive tourists, is required to assess the various dimensions of impacts, and net benefits to the community. On the basis of this knowledge it will be possible to better plan and manage tourism for increased benefits of the community as well as tourists”.

1.2 Research questions

A research hypothesis was developed based on existing information that self-drive tourists constitute the majority of travellers in the North Kimberley (Kimberley Development Commission and Department of Transport, 1999). In the context of the studies by Yuco Consultants (2003) and Greiner and Larson (2004), the hypothesis asserted that self-drive tourists provide important economic opportunities but are also the major contributor to the perceived problems arising from tourism for the region, its communities and the landholders. The investigation aimed to answer the following research questions:

1. Who are the self-drive tourists? Where do they come from? Why do they come? Where do they go and what do they do while in the region?
2. What are the economic benefits tourists generate and the (environmental) costs?
3. How can tourism infrastructure and management assist in maximising net benefit of tourism in the North Kimberley region, with specific focus on the Gibb River Road?

1.3 The North Kimberley

The Kimberley region forms the western part of Australia's tropical savanna landscape. It covers an area of approximately 424,000 square kilometres.

The Great Northern Highway is a sealed road which skirts the Kimberley, running south from Wyndham to Halls Creek and then west through Fitzroy Crossing and past Derby to Roebuck near Broome before heading south out of the region.

The Gibb River Road (GRR) is an unsealed road which traverses the Kimberley in an east-west direction. It spans some 650 kilometres, from outside Derby to the Great Northern Highway between Wyndham and Kununurra.

'The Gibb', as the road is colloquially referred to, was constructed in the 1950s and 60s to facilitate transport of cattle from North Kimberley stations to the abattoirs and ports of Derby, Wyndham and Broome. It is the main arterial road servicing the North Kimberley, as defined for the purpose of this study (Figure 1).

At 400 km from Derby and 250 km from Kununurra, the Kalumburu Road branches off to the north. It extends for 260 km to Kalumburu. Tracks off Kalumburu Road provide access to the Mitchell Plateau and the far north of the Kimberley.

There are four major groups of road users:

1. Residents from the stations, communities, and townships;
2. External businesses servicing the residential population and businesses, specifically cattle transport;
3. Service providers from WA state agencies—including telecommunications, health, and others—and Shires; and
4. Visitors, including local, interstate and international tourists and tour operators.

The Gibb River and Kalumburu Roads provide access to the tourist attractions of the North Kimberley. Geological formations such as Mitchell Falls and Windjana Gorge are two of the main natural features of interest. Aboriginal culture, in particular rock-paintings, is of interest to many visitors. The region's diverse birdlife, fishing opportunities and scenery add to the tourist interest of the area.

The reputation of the Gibb River Road is as one of the few remaining "great dirt roads" in Australia. It is advertised as an outback experience where the adventure involved in reaching the places is just as important as the destination. Its reputation is inextricably linked to that of the Kimberley as a 'wild' and 'frontier' place.

However, there is increasing recognition that "some of the mystique of the Gibb River Road has disappeared [...] as more and more people now travel the road. [...] Those travelling during the peak months from May to August should not expect a wilderness experience" (McGonigal, 2003:p.119).

1.4 Tourism impacts

The community of the North Kimberley and businesses are harnessing the economic opportunities associated with tourism in various ways. Along the Gibb River and Kalumburu Roads a number of pastoral lessees have diversified into tourism. They are the principal providers of tourist infrastructure and services. Also, Aboriginal communities are directly and indirectly involved in tourism through tour operations, arts and crafts.

Key concerns of the regional community and management agencies relate to the impacts of tourism, the distribution of benefits and costs, and a possible rapid increase of tourist numbers in the absence of adequate management strategies.

Tables 1 and 2 summarise the key concerns. However, no work has been undertaken to systematically assess tourist impacts.

Table 1. General community issues with tourism in the North Kimberley

Compiled from Yuco Consultants (2003)

- Lack of infrastructure for visitors in face of increasing tourist numbers
- Poor management of the region in general and of tourism specifically
- Lack of Indigenous involvement in tourism
- Relationship between pastoral lessees and tourists/tour operators—with specific reference to perceived lack of respect for property, use of private infrastructure without authority, and lack ethics and protocols
- Uncertainty in relation to lease renewal 2015, specifically with respect to proposed exclusion of areas with high tourist values from pastoral estate
- Uncertainty about native title developments
- Competing interests within the community

Table 2. Specific issues raised by North Kimberley landholders in relation to tourism

Compiled from Greiner and Larson (2004)

- Introduction and spread of weeds, though unintentional translocation by vehicles (tyres and car body), tourist boots and clothing, swags and tents
- Litter and (unburied) faeces left by campers and travellers, which constitute a management problem for landholders, an eyesore to residents and the travelling public alike, and a public health hazard
- Wildfires caused by camp fires (in uncontrolled areas) or discarded cigarette butts
- Degeneration (corrugation) of the Gibb River Road due to volume of tourist traffic, resulting in high wear and tear of vehicles and higher commercial transport costs
- Tourist traffic (travel behaviour) resulting in unsafe road conditions

1.5 The North Kimberley tourist market

The current understanding of the North Kimberley tourist market is basic and principally based on the *North Kimberley Road Users Study* conducted by the Kimberley Development Commission and the Department of Transport in 1999 (KDC and DT, 1999). The study aimed at collecting “all reasonably accessible data” on traffic volumes, road use patterns and visitor numbers and trends for the Gibb River and Kalumburu Roads and the Mitchell Plateau.

The *North Kimberley Road Users Study* involved review of the existing data, collection of data from accommodation providers, survey of the visitors using the area, survey of the tour operators and collection of data on traffic volumes at key points along the road. The Visitor Survey section of the study is based on 2062 survey responses that were received from a total of 5500 surveys distributed to the visitors. The road user survey provided comprehensive information on the origin of survey respondents, length of stay, intentions to travel the Kalumburu Road, types of vehicles, types of accommodation, and accommodation sites.

The road user study (KDC and DT, 1999) identified the North Kimberley as a self-drive destination. Less than 8% of respondents were travelling in tour vehicles or on a bus/coach. In terms of origin, 27% of respondents were West Australians, 61% interstate visitors (of which 70% were from Victoria and New South Wales) and 12% international visitors.

Tourism in the North Kimberley is seasonal due to climate and road conditions. Seasonality and the prevalence of self-drive tourists are reflected in visitor statistics collected in National Parks (Figure 2).

Figure 1: Map of the North Kimberley

(modified from: David McGonigal, 2003)



Table 3: Visitors to Kimberley National Parks and reserves, 1994—2003/04

(Source: CALM, 2005, Luisa Liddicoat: personal communication;
Note: National Parks in North Kimberley highlighted)

PARK / RESERVE	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003/04
DRYSDALE RIVER							300 ^E	300 ^E	500 ^E	250 ^E
GEIKIE GORGE***	40,000	40,000	44,000	28,633	29,259	32,430	27,587	29,545 [*]	30,575 [*]	29,477
KING LEOPOLD (SILENT GROVE)				7,000	10,000	10,000 ^E	3,453	8,696	10,276 [*]	11,444
MIRIMA**	50,000 ^E	50,000 ^E	50,000 ^E	50,000 ^E	50,000 ^E	52,500 ^E	26,718 [*]	35,198 [*]	32,725 [*]	29,011
MITCHELL RIVER					2,000	3,557	3,500 ^E	6,000	8,409	7,938
PARRY LAGOONS							4,710 [*]	9,887 [*]	11,239 [*]	10,256
PURNULULU	11,000	13,000	14,000	14,000	17,000	17,073	17,800	21,451	21,152 [*]	22,641
ROWLEY SHOALS							110	169	240 [*]	228
TUNNEL CREEK	18,000 ^E	18,000 ^E	18,000 ^E	18,000 ^E	18,000 ^E	9,200 ^E				
WINDJANA GORGE	18,000 ^E	18,000 ^E	14,000	12,526	15,538	14,365	12,293	14,771	16,119 [*]	18,968
WOLFE CREEK CRATER	6,000 ^E	6,000 ^E	6,000 ^E	6,000 ^E	6,000 ^E	6,500 ^E	5,000 ^E	5,000 ^E	5,000 ^E	8,000 ^E
TOTAL FOR REGION	143,000	145,000	146,000	136,159	147,797	145,625	101,471	131,017	136,235	138,213
TOTAL FOR NORTH KIMBERLEY	36,000	36,000	32,000	37,526	45,538	37,122	19,246	29,467	34,804	38,350

^E THIS FIGURE IS AN ESTIMATE. ALL OTHER FIGURES ARE DETERMINED OR EXTRAPOLATED FROM METROCOUNT VEHICLE CLASSIFIERS, TRAFFIC COUNTERS, TICKET SALES, ENTRY/CAMPING FEES.

* FINANCIAL YEAR ANNUAL FIGURES (RATHER THAN SEASON ANNUAL FIGURES)

** FIGURES FOR MIRIMA PRIOR TO 2000 WERE ESTIMATES BASED ON VISITORS TO KUNUNURRA. FIGURES FOR MIRIMA FROM 2000 ONWARDS ARE RECORDED FROM VEHICLE CLASSIFIER ON ENTRY ROAD AND DOES NOT INCLUDE WALK IN

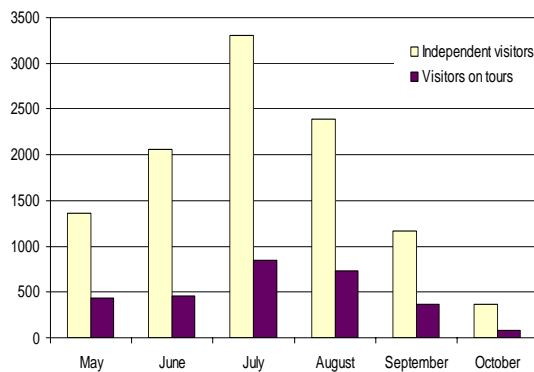
*** FIGURES FOR GEIKIE GORGE PRIOR TO 1997 WERE DERIVED FROM TRAFFIC COUNTER READINGS. FIGURES FROM 1997 ONWARDS ARE BASED ON BOAT TOURS PASSENGERS NUMBERS.

In Windjana Gorge National Park, 79% of campers were independent travellers and 21% were customers on tours. At Silent Grove/Bell Gorge, which are camping sites in the King Leopold Ranges Conservation Park and more remote from Derby than Windjana Gorge, the ratio was 86% independent campers to 14% on tours.

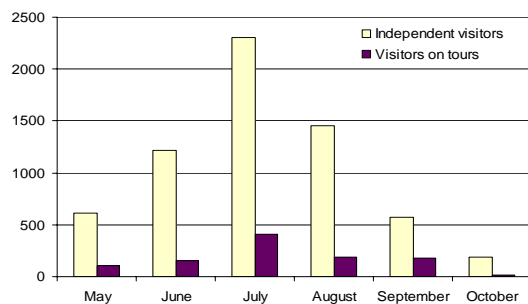
Figure 2: Visitation by tourists—self-drive and on tour—to selected National Parks

(Source: KDC and DT, 1999; data for year 1996)

(a) Windjana Gorge National Park



(b) Silent Grove/Bell Gorge (King Leopold Ranges Conservation Park)

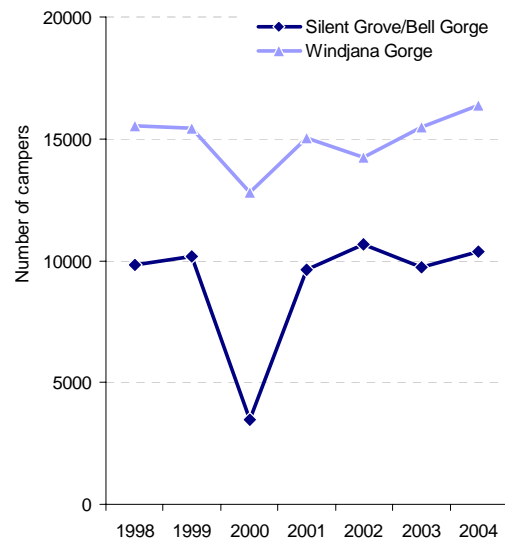


Virtually no information is available on tourist numbers to the North Kimberley. Time series data on visitor numbers are available for National Parks (Table 3). However the information is patchy and scarcely longitudinal prior to the year 2000.

For key National and Conservation Parks within the North Kimberley, visitation over the past seven years seems to be largely unchanged but can be erratic—as demonstrated by a dip in visitor numbers in the year 2000. Figure 3 shows the number of campers in Windjana Gorge National Park and at Silent Grove/Bell Gorge (camping sites within King Leopold Ranges Conservation Park).

Figure 3: Number of campers at Windjana Gorge and at Silent Grove/Bell Gorge

(Source: CALM 2005 – Rod O’Donnell)



Information on vehicle movements on the Gibb River Road is limited. During 2002/03 an estimated 42,000 vehicles travelled on the Gibb River Road (B. Bannon, WA Main Roads, 2004, personal communication). However, the traffic counter is located only a few kilometres outside Derby and it is unknown what proportion of the count are movements by tourists and how many of those travel the whole Gibb River Road.

Of particular interest and concern to the host community is free camping. Free campers prefer ‘free’ bush camps to managed camps. As such, they do not contribute to regional income through paid camping, nor is their impact managed or mitigated through, for example,

toilets, provision of water, rubbish removal, and management of sites for camp fires. The Road User Study (KDC and DT, 1999) estimated that 13% of Kimberley visitors in 1995 free-camped, accounting for an estimated 36,600 visitor nights.

1.6 Report structure

This report is organised into eight sections.

Section 2 describes the survey method used for the collection of the data presented in this report.

Section 3 provides a socio-demographic profile of the respondents, which is complemented in Section 4 by the description of activities and visitor satisfaction.

Section 5 provides analysis of data in terms of tourist impact, both economically and environmentally.

Section 6 provides a comparative analysis of the survey findings. It compares the tourist market as well as tourist spending and environmental impacts to other savanna destinations.

Section 7 provides discussion and interpretation of the data, supported by additional survey information and analysis.

Section 8 offers conclusions on the basis of the research questions and the evidence presented in the report. It specifically reviews the relevance of the findings in the context of regional planning in general, and tourism planning and management specifically.

2 METHODOLOGY AND DATA COLLECTION

This study commenced with a desktop collection and analysis of information and data available on tourism in the Kimberley, with specific focus on the North Kimberley. Much of this data was published in Greiner and Larson (2004).

A survey of independent travellers was conducted during July to November 2004.

Some 1100 survey forms were mailed in July 2004 to various distribution points in the region (Table 4). The questionnaires were prominently displayed and offered to self-drive travellers. It is not known how many survey forms were actually taken.

Travellers were asked a series of standard socio-demographic questions. In addition, they were asked to record activities and expenses during their travel through the North Kimberley. Experiential questions and assessments completed the survey. A copy of the survey is available in Appendix 1.

In an effort to maximise the return rate, the survey forms were attractively presented with a colour covering letter and came with a self-addressed pre-paid return envelope.

As a further incentive, a lottery mechanism was included, whereby every valid response—if an address was provided—would enter draws for book prizes. Draws were conducted in September and December 2004 and in June 2005. The book prizes went to respondents in Italy, South Australia and Queensland, respectively.

By end of 2004, 202 valid responses were received, representing 499 independent travellers. This sample size enabled a thorough analysis of the responses and eliminated a need to be undertaking further surveys during the 2005 tourist season.

All distribution points were successful in generating responses and there was a good distribution of where the responses originated, both in terms of geography as well as type of pick-up place. Approximately one quarter (23%) of responses received were picked up west of the Gibb River Road, 25% prior to/at the eastern entrance to the Gibb River Road, the remainder en route throughout the region. A further 32% of responses received were picked up at visitor centres, 21% on stations, 19% at Imintji store and 24% in National Parks (Table 4).

Table 4. Distribution points for the survey with responses received

Distribution points	Responses received (%)
Broome Visitor Centre	6%
Derby Visitor Centre	17%
Kununurra Visitor Centre	9%
El Questro Station	16%
Imintji Store	19%
Mornington Station	1%
Mt Elisabeth Station	4%
Mitchell Falls / CALM	2%
King Leopold / CALM	12%
Windjana / CALM	10%
Not specified	4%

The data was subsequently compiled and digitised, corrected and tested for outliers, and analysed and tested for significance.

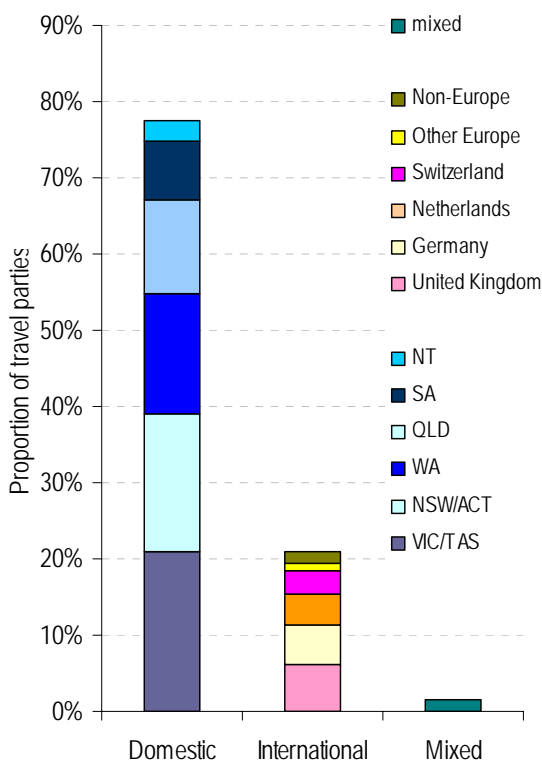
The means presented in the results sections of the report are based on valid responses provided, not on the total sample.

3 SOCIO-DEMOGRAPHIC PROFILE OF INDEPENDENT TRAVELLERS

3.1 Demographic profile

The independent travellers to the North Kimberley were predominantly domestic visitors, representing 75% of responding travel parties (Figure 4).

Figure 4: Origin of survey respondents



Among the domestic respondents, 21% were visiting from within Western Australia. The largest interstate contingents came from Victoria (26%), followed by New South Wales and the Australian Capital Territory (23%), and Queensland (16%).

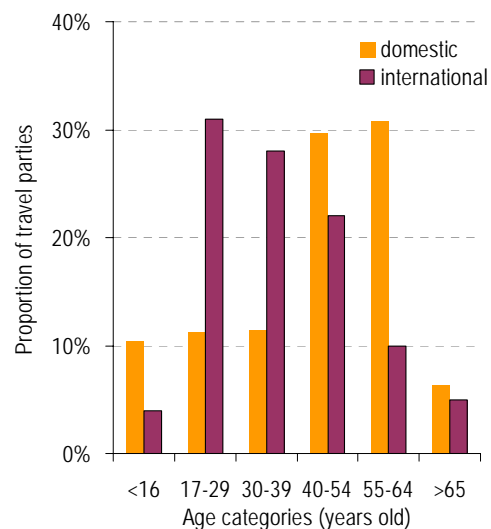
Of the 25% international visitors, the vast majority came from European countries, specifically from the United Kingdom,

Germany, the Netherlands and Switzerland. Non-European nationalities recorded were New Zealanders and Canadians.

The mean size of travel party was 2.45 persons for domestic respondents and 2.53 persons for international respondents.

Domestic travellers tended to be older than international travellers (Figure 5). About 60% of domestic respondents fell into the age categories of 40–54 and 55–64 years old. Of domestic travellers 10% were children up to 16 years old. In contrast, the most prevalent age categories for international respondents were 17–29 and 30–39 years of age. Few respondents were older than 65 years of age.

Figure 5: Age of independent travellers, domestic and international



Fewer than one-quarter of travel parties had at least one retired member among them. Of travel parties, 20% of respondents were fully retired. That proportion was higher for domestic visitors (25%), but relatively fewer travel parties from Western Australia and South Australia were fully retired.

Plate 1: Group of interstate travellers



Plate 2: Mixed nationality travel group



Plate 3: International travellers in hire car



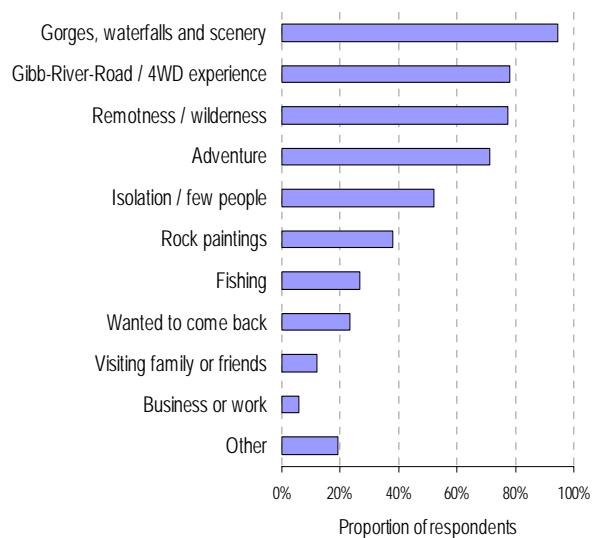
Plate 4: Intrastate travellers



3.2 Reasons for visits

The key reasons as to why independent travellers visited the North Kimberley were the region’s natural features, followed by wanting to experience the Gibb River Road as well as remoteness and wilderness, and adventure. All of those are nominated as being a reason for the visit by at least three quarters of respondents (Figure 6).

Figure 6: Relative importance of attractions: nominated as important reasons for visiting



Upon closer inspection of the motivations to visit the North Kimberley, two prime attractions and a series of supporting attractions emerged.

The scenic and natural attributes were clearly most important, with one-third of respondents nominating this attribute as the single most important reason for their visit and a further 24% as the second most important reason (Table 5).

The Gibb River Road (and four wheel driving) is the second key attraction. It is nominated by 22% as the most important reason for visiting the North Kimberley and by a further 19% as the second most important reason.

Table 5: Rating of attractions

	Degree of importance			
	first	2nd	3rd	also
Landscape/scenic features	33%	24%	15%	14%
Gibb-River-Road/4-WD	22%	19%	9%	20%
Remoteness / wilderness	8%	15%	22%	26%
Adventure	7%	11%	17%	29%
Wanted to come back	7%	6%	2%	5%
Visiting family or friends	5%	2%	0%	3%
Business or work	3%	0%	0%	2%
Fishing	0%	1%	5%	16%
Isolation / few people	0%	8%	7%	32%
Rock paintings	0%	3%	6%	23%
Others	5%	3%	1%	9%

Expectations of experiences remoteness/wilderness and having an adventure were supporting attractions. There are no nominations of fishing, rock paintings or isolation as the most important reasons for the visit.

About 20% of respondents were return visitors. Only 3% of respondents indicated that their purpose of travel was for business.

Word-of-mouth was the most important source of travel information for independent travellers in the preparation for their journey, with 38% nominating it as the most important source (Table 6). Only one third of respondents had not received word-of-mouth information.

Table 6: Rating of information sources

	Degree of importance				not rated
	1st	2nd	3rd	also	
Word-of-mouth	38%	15%	12%	2%	33%
Travel guide(s)	25%	24%	8%	1%	42%
Internet / www	17%	22%	7%	1%	52%
Other	13%	10%	8%	2%	66%
Travel agent	2%	5%	4%	2%	86%

The second and third most important sources of information were travel guides and the Internet. Travel agents played a very minor role for the independent travellers. Other information sources, such as travel shows, were of minor importance.

Plate 5: Intrastate travellers in hire car



Plate 6: International travellers in hire car



Plate 7: Intrastate travellers with caravans



Plate 8: "Local" travellers



3.3 Income of independent travellers

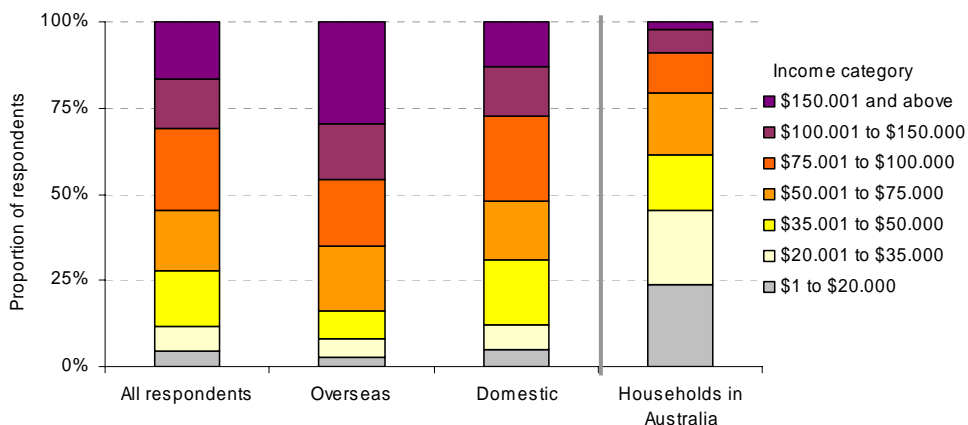
The income distribution of visitors to the Kimberley showed that a much larger proportion of independent travellers were on household incomes above \$100,000 per year than below \$35,000 (Figure 7). Less than one-third of independent travellers were on household incomes below \$50,000.

Figure 7 also contains a comparative household income distribution for Australia (as per Australian Bureau of Statistics, census 2001). A visual comparison indicates that the income distribution of respondents is skewed towards higher income categories than that of the Australian population. The median household income category was \$75,001–100,000 as compared to the national median of \$35,001–50,000.

International visitors tended to be on higher incomes than domestic visitors, with 30% of international respondents stipulating a household income above \$150,000 per annum.

Figure 7: Household income of independent travellers; by origin

- Notes: (1) Only for respondents who nominated income; fewer than 10% declined to do so.
 (2) Household income is combined household income for travellers within one vehicle and may therefore over-estimate income where travellers do not share a household
 (3) National comparison approximated from ABS Census 2001; weekly household earnings

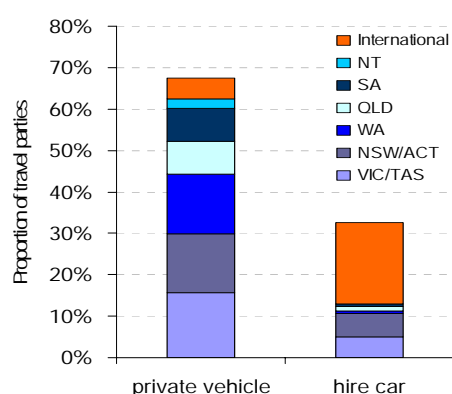


4 ACTIVITY PROFILE OF INDEPENDENT TRAVELLERS

4.1 Travel characteristics

The majority of respondents travelled in private vehicles (67%). Sixty per cent of those travel parties who had a hire car were from overseas, but many interstate visitors from Victoria and New South Wales/the ACT also hired vehicles (Figure 8).

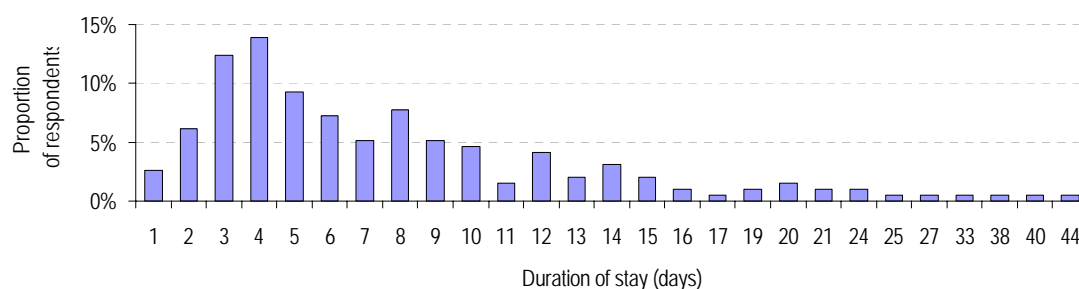
Figure 8: Extent of car hire, by origin



Independent travellers typically spent two to ten days in the North Kimberley (Figure 9). Some respondents spent up to six weeks in the region. Mean duration of stay was eight days; median duration of stay was six days (Table 7).

Figure 9: Duration of stay

Note: Does NOT including days spent in urban centres and other areas of the Kimberley prior to or after travel in the North Kimberley region



Domestic travellers tended to stay longer than international travellers and older travellers tended to stay longer than younger travellers.

Table 7: Mean and median duration of stay in the North Kimberley

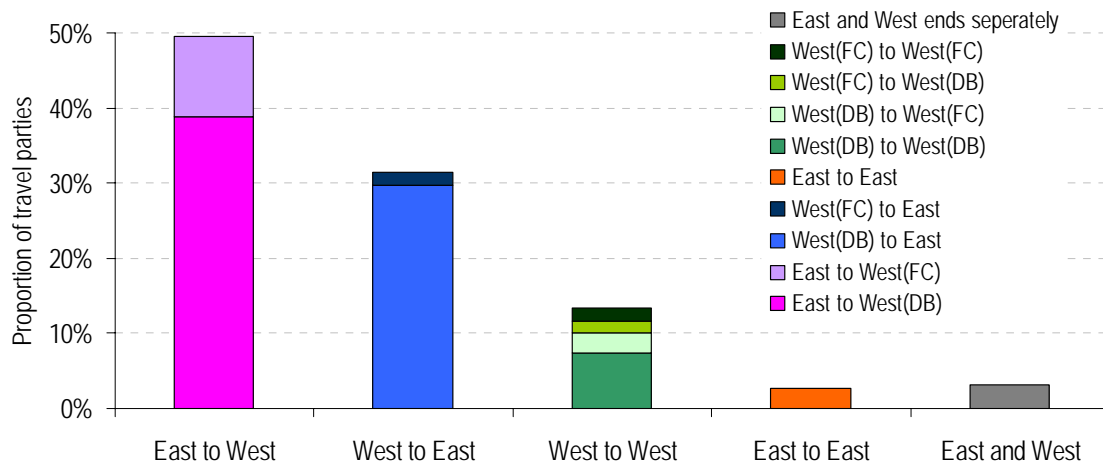
Note: This does NOT include time spent in towns and other areas of the Kimberley

	Duration of stay (days)	
	mean	median
all travellers	8.0	6
domestic	8.3	7
international	7.1	5
young	5.2	4
middle	7.4	6
older	9.6	7
mixed ages	8.1	6

A vast majority of respondents (79%) travelled the length of the Gibb River Road (past the Kalumburu turnoff). The most popular direction for travel on the Gibb River Road was east to west (Figure 10), with 36% of respondents driving from Kununurra/ Wyndham to Derby and a further 10% ending up in Fitzroy Crossing. Respondents travelling from Derby to Kununurra were 27%. Only 12% explored the western side of the North Kimberley. The others either explored the eastern end only or connected both ends via the Great Northern Highway.

Figure 10: Direction of travel

Note: Distinction is made at the western end of the Gibb River Road between Derby (DB) and Fitzroy Crossing (FC)



4.2 Visitation of sites and locations

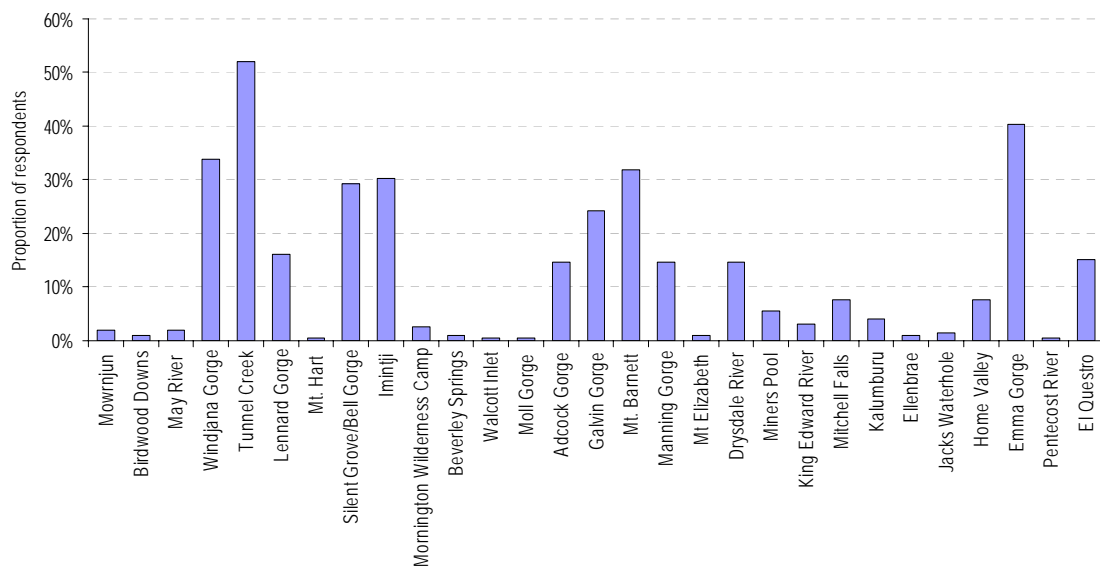
Across the North Kimberley, Tunnel Creek emerged as the site most visited by independent travellers for day visits. It was visited by more than 50% of respondents (Figure 11).

The second most popular site was Emma Gorge near the eastern end of the Gibb River Road. Other key sites for day visits included Windjana Gorge, Bell Gorge and Galvin Gorge.

Imintji, Mt Barnett Roadhouse, Drysdale River Station and El Questro were visited to refuel vehicles and restock supplies.

Some sites, including Adcock Gorge and Jacks Waterhole, were not officially open to visitors. However, as the data show, some tourists visit these locations/sites anyway.

Figure 11: Day visits to sites



From the data where respondents stayed overnight, an aggregate of visitor nights was calculated for various sites (Figure 12). El Questro was the place with most visitor nights. Of the total 1296 visitor nights spent by respondents in the region, 20% were spent at El Questro (56% of respondents stayed there overnight).

Bush camping was very popular amongst independent travellers. 38% of respondents camped in bush camps at least once during their stay in the North Kimberley and spent 16.5% of total visitor nights there and rated second in terms of total visitor nights.

Mornington Wilderness Camp, in its first year of operation, attracted approximately 10% of visitor nights and 25% of respondents stayed there for at least one night.

Of travel parties, 9% stayed overnight at Home Valley Station, which was also in its first year of operation as a tourist business under new management—after a period of years of being vacant.

In terms of overall visitation—combining overnight stays and day visits—Windjana Gorge emerged as the location most frequented by independent travellers, followed by Silent Grove/Bell Gorge and El Questro (Figure 13).

Figure 12: Overnight visitation at sites/locations

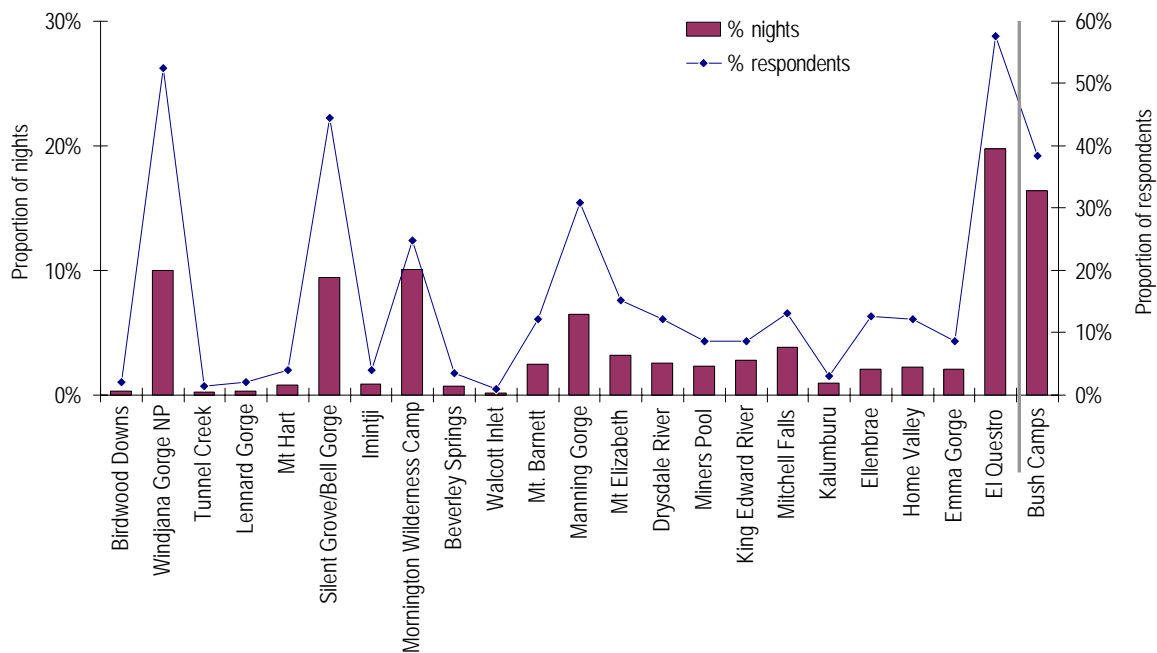
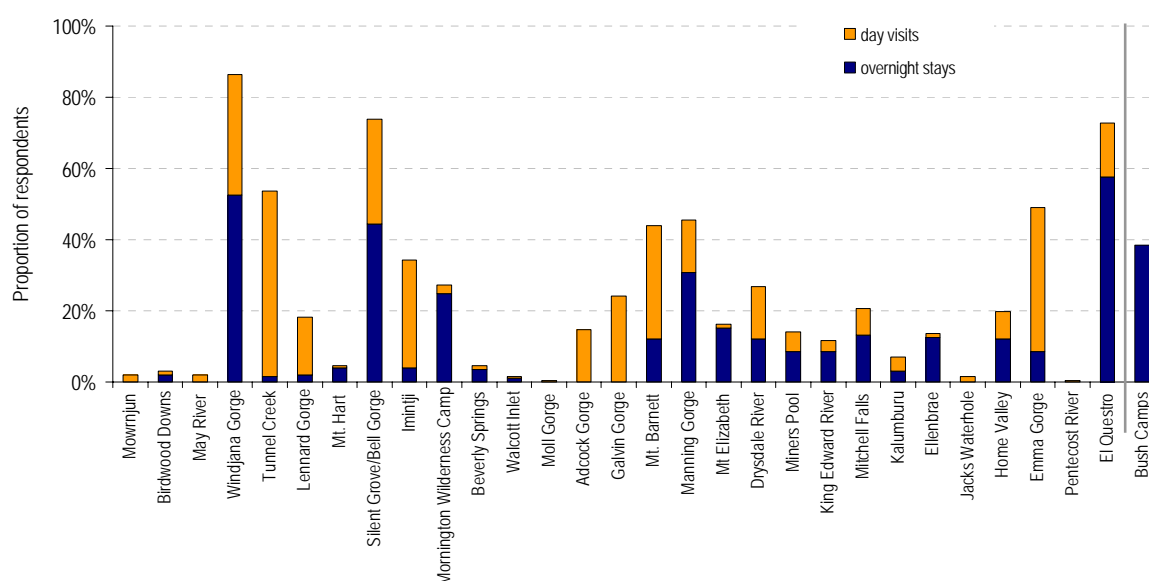


Figure 13: Combined day and overnight visitation of sites/locations



4.3 Visitor satisfaction

Asked about their level of satisfaction, 55% of respondents indicated that they were extremely satisfied with the experience of the North Kimberley (Figure 14). A further 37% of respondents were satisfied. Victorians and Western Australians were most enthusiastic about the North Kimberley.

Only about 7% of respondents were indifferent about their experience and a very small minority of respondents (2%) were dissatisfied.

Respondents were asked to rate the elements of the tourism product on a five-point ordinal scale from ‘very bad’ to ‘very good’. ‘Landscape/natural features’ received an exceedingly high rating, with 86% of respondents rating this element as “very good” (Figure 15). This indicates that the experience or respondents in relation to this element tended to match or indeed exceed expectations.

Respondents also largely saw their expectations met and/or exceeded in relation to an ‘adventure’ or ‘wilderness’ experience.

A different picture emerges for the element entitled ‘roads’. Among all the destination elements, it received the lowest rating, with only 61% of respondents rating the roads as ‘good’ or ‘very good’, and 22% of respondents rating them as ‘bad’ or ‘very bad’.

This would seem of concern in the context that travellers hold very high expectations in relation to the ‘Gibb River Road / Four Wheel Driving’. Indeed, there is no conflict to that effect. Many respondents commented that they were indeed attracted to bad road conditions and did not want road conditions improved because the rough road was an important part of their experience. Roads, and specifically the Gibb River Road, are a critical component of the North Kimberley destination, which is why this aspect is further in detail in section 7.2 of the report.

Figure 14: Satisfaction of independent travellers with North Kimberley; by origin

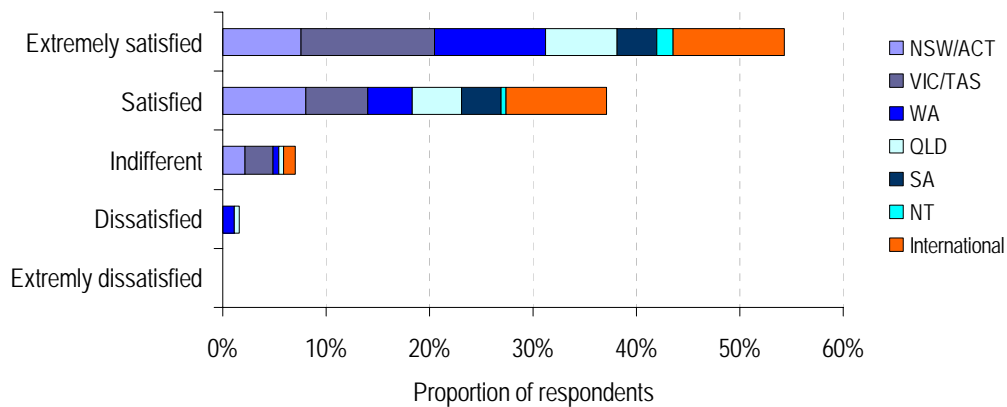
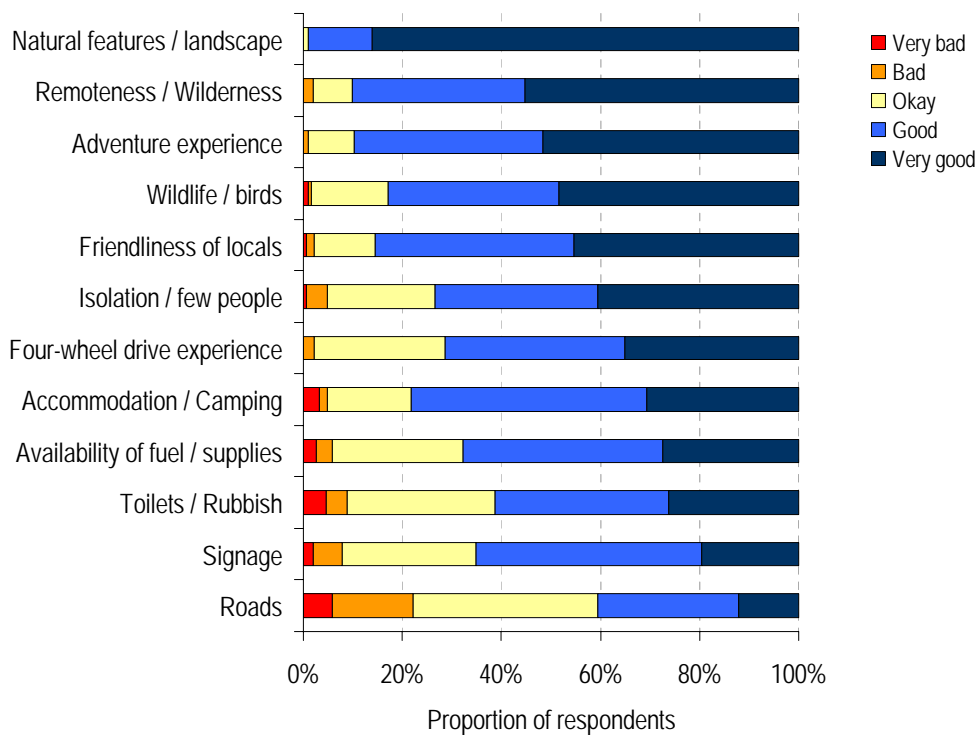


Figure 15: Rating of elements of the tourist product



5 BENEFITS AND IMPACTS OF INDEPENDENT TRAVELLERS

5.1 Traveller spending

The way in which tourists contribute to a destination's economy is through the purchase of goods and services the destination has to offer.

The survey established an indicative picture of tourist spending in the North Kimberley as well as distribution of spending on items. It is important to note that these spending estimates did *not* include spending in urban centres prior to entering the Gibb River Road since the study was strictly focussed on spending in the remote area defined as North Kimberley. The data presented therefore provide a partial picture of tourist spending.

On average, travel parties spent \$1047 in the North Kimberley. This is equivalent to \$427 per traveller (Table 8). Domestic travellers tended to spend more than international travellers (Table 9). Retirees spent significantly more than non-retired travel parties. Spending tended to be higher for respondents on higher incomes and older travel parties. Domestic travellers, young travellers and those on low incomes tended to spend relatively less on accommodation and more on tours (Table 10).

Table 8: Mean spending; by items

	Spending (\$) per	
	travel party	person
Accommodation	\$ 336.02	\$ 137.19
Food	\$ 124.59	\$ 50.87
Fuel	\$ 234.10	\$ 95.58
Supplies	\$ 98.51	\$ 40.22
Tours	\$ 180.37	\$ 73.64
Other	\$ 73.40	\$ 29.97
TOTAL	\$ 1,047.00	\$ 427.47

Table 9: Mean spending; by visitor segments

Note: ** difference between retired and non-retired is statistically significant at 5% level using Mann-Whitney U Test for post hoc comparison

	Mean spending (\$) per		
	travel party	person	person per day
By origin			
International	862	340	48.29
National	1229	501	60.40
By workforce status			
Retired**	1531	726	79.34
Partially retired	1546	409	57.55
Non retired	1026	414	53.14
By income (grouped)			
up to \$35,000	743	355	38.60
\$35,001 to \$100,000	1146	475	58.37
\$100,001 and above	1369	529	71.45
By age category (grouped)			
young (<=29)	634	270	52.07
middle age (30-54)	981	451	61.08
older (>=55)	1402	666	69.39
mixed ages	1245	400	49.15

Table 10: Distribution of expenses; by visitor segment

	Distribution of expenses (%)						Sum
	accommodation	meals	fuel	supplies	tours	other	
By origin							
International	33.1%	13.4%	22.0%	5.7%	14.7%	11.2%	100%
National	26.5%	11.4%	23.1%	10.0%	20.5%	8.5%	100%
By workforce status							
Retired	33.8%	8.8%	18.9%	8.8%	20.7%	9.0%	100%
Partially retired	33.1%	18.1%	21.2%	9.8%	11.7%	6.1%	100%
Non Retired	24.4%	12.3%	24.7%	9.7%	19.9%	9.0%	100%
By income (grouped)							
up to \$35,000	15.5%	5.9%	36.7%	12.3%	23.3%	6.3%	100%
\$35,001 to \$100,000	28.1%	9.7%	24.4%	10.0%	19.2%	8.7%	100%
\$100,001 and above	30.1%	16.6%	17.7%	7.8%	19.3%	8.6%	100%
By age category (grouped)							
young (<=29)	15.2%	11.3%	28.6%	11.1%	23.4%	10.5%	100%
middle age (30-54)	26.7%	11.3%	24.7%	10.8%	13.6%	12.9%	100%
older (>=55)	25.5%	9.0%	23.0%	9.4%	22.8%	10.3%	100%
mixed ages	32.1%	15.2%	20.8%	8.5%	19.3%	4.2%	100%

5.2 Tourist impacts

The community and landholders identified a number of negative impacts and concerns about tourism (Section 1). The questionnaire asked people to self-report the frequency with which they did things that have the potential to cause impacts on the environment and on the community. The question had been worded carefully (Question 14 in [Appendix 1](#)) to minimise the moral hazard that people face in admitting to doing things they know are not etiquette, and which typically leads to under-reporting of such activities.

The results are shown in Figure 16. A vast majority of respondents (78%) indicated that they went to the toilet in the bush. Of the respondents who went more than once during their travel through the North Kimberley, about one-third indicated they did so at least twice per day.

Twelve per cent of travellers reported that they camped outside licensed camping areas once during their travel—the report further refers to this as bush camping. An additional 17% bush camped more than once; many respondents did so regularly.

Fourteen per cent of respondents indicated that they had lit camp fires outside designated areas. Within that group, two thirds of respondents did so at least twice.

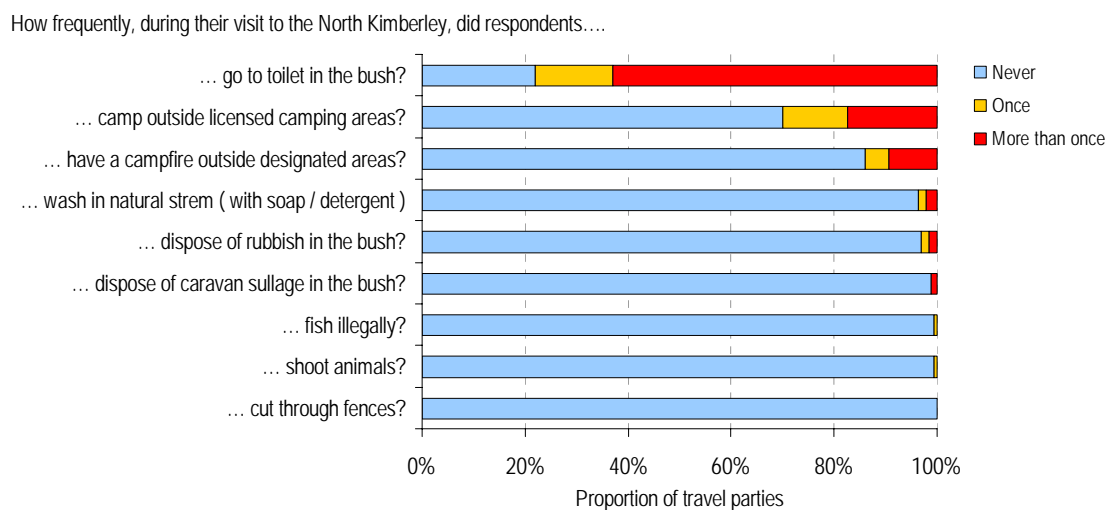
Four per cent of respondents said they had disposed of rubbish in the bush. An equal number used soap and detergent in natural streams. There were also incidences of people discarding caravan sullage in the bush and single self-reported incident of illegal fishing and shooting (of a feral cat).

The extent of self-reporting appears realistic at face value, based on the vast majority of respondents indicating going to the toilet in the bush. Triangulation confirmed that the reporting of unlicensed camping is consistent with the diary-based bush camp information (Figure 12).

The results thus support the observations by the regional community of the frequent use of bush camps by travellers and human faeces and toilet paper found in the bush.

However, 97% of respondents assert that they did not litter—and some respondents commented that they picked up rubbish and toilet paper that had been left behind by other campers/travellers.

Figure 16: Self-reported frequency of adverse activities by independent travellers



6 COMPARATIVE VISITOR ANALYSIS

6.1 The tourist market – a comparison with whole-of-Kimberley

The Road User Study (KDC and DT, 1999) refers to the Western Australia Travel Survey (WATS) from 1995 and 1996. While almost a decade old and referring to the whole-of-Kimberley, the data still provides a useful reference point for this survey. The more recent 2002 Research Review (WATC, 2002) provides more recent data on travellers to the Kimberley, but is limited to domestic travellers.

The WATS found that Western Australians made up around 43% of visitors to the region during 1995–1996. This is significantly higher than the 16% of Western Australians respondents recorded in this survey.

Overseas visitors represented 7% of visitors in 1995 and 14% in 1996 (WATS). This survey recorded 22% of international travellers.

The mean length of stay in the Kimberley by domestic visitors in 1996 was recorded as 8.7 nights and in 2002 as 8.4 nights (WATC, 2002). This survey found that independent domestic travellers spent on average 8.3 days in the North Kimberley alone, which would indicate that the total length of stay of these independent travellers in the whole-of-Kimberley is longer than the domestic mean for the Kimberley.

The WATS data recorded 44% of interstate visitors (but only 15% of intrastate visitors) being 55 years and older while the majority of overseas visitors were in the 18–34 years age group. Our survey findings are consistent in that 37% of domestic respondents were 55 years and older, and 59% of international respondents were between 17 and 39 years of age. The 2002 WATC study recorded 29% of domestic visitors as younger than 34 years of age; 30% in the age group 35 to 44 years; and 41% in the age group 45 years and older.

Private vehicles were found to be the most common form of transportation within the Kimberley, followed by bus/coach and rented vehicle—with 54%, 10% and 5%, respectively. Twenty-nine per cent of visitors came to the Kimberley by air (WATS). The 2002 WATC study recorded 48% of domestic visitors using private vehicles, and 33% arriving by air. By definition, all survey respondents in our survey were self-drive—with one-third of respondents travelling in a hire car, which was rented in either Broome or Kununurra, or further afield.

WATC (2002) reported 32% of domestic visitors to the region had an annual household income of \$36,000–\$77,999; with 38% of visitors with annual income of \$78,000 or above. Our study findings were consistent, with 40% of overall visitors being in the annual income categories of \$35,000–\$75,000 and about 50% in income categories of \$75,000 and more.

Daily spending and overall trip spending of domestic travellers to the North Kimberley reported in this study (\$60.40 per visitor day, and \$501.32 per person per trip) was below the WATC estimated mean destination spending for domestic visitors to the Kimberley of \$102 per person per day and \$1,047 per person per visit (WATC, 2002). This was to be expected as the North Kimberley is a subregion within the Kimberley tourist region and the spending estimates from this study therefore portrayed a partial profile of spending, which did not include, for example, car hire, purchase of supplies, accommodation and gifts purchased in urban centres outside the case study region.

6.2 The tourist market – a comparison to the Gulf of Carpentaria

The majority of self-drive tourists to the North Kimberley were domestic tourists from across Australia, and tended to be between 40 and 65 years of age and relatively well off. They were adventure travellers who visited the region for

its intrinsic landscape characteristics and liked to get 'off-road'. They moved about while they were in the region.

These characteristics contrast the tourist market quite markedly from that in other savanna destinations, specifically the Gulf of Carpentaria, which was portrayed in Greiner et al (2004).

The tourists to Karumba and Normanton, the key tourist destinations in the Gulf, are almost exclusively domestic (95%), with large sections of visitors coming from southern states (retirees) and intrastate Queensland (families, travel groups). The vast majority of tourists are return visitors. They come predominantly for the fishing and the weather, and to a much lesser extent for the savanna landscape of the Gulf.

Tourists to the Gulf tend to stay (in one place) for long periods of time. Average duration of

stay in Normanton/Karumba is 20 days, with the large retiree segment staying on average 10.5 weeks. Because of this, retirees account for 37% of visitor nights in commercial accommodation even though they constitute only 10% of visitors to the Gulf. Caravan parks were the preferred type of accommodation. Visitors tended to be on low incomes, specifically retirees, which resulted in low spending.

Table 11 shows that tourist spending profiles between the Gulf and the North Kimberley are quite similar—despite the fact that regional centres were not included in the North Kimberley data. Daily spending per visitor is slightly higher for the North Kimberley than for the Gulf—between about \$39 to \$79 per person per day as compared to \$30 to \$62. Higher spending on fuel explains much of the difference.

Table 11: Comparison between destinations of daily visitor expenses; by visitor segment

Note: (*) Values for Normanton/Karumba for year 2002/03; category 'other' for Normanton/Karumba contains alcohol

	Distribution of expenses (\$ per traveller per day)						Sum
	accommodation	meals	fuel	supplies	tours	other	
By origin							
International	15.97	6.48	10.61	2.75	7.10	5.38	48.29
National	15.99	6.89	13.98	6.05	12.38	5.12	60.40
By workforce status							
Retired	26.84	6.95	15.00	6.98	16.38	7.17	79.34
Partially retired	19.03	10.39	12.22	5.64	6.74	3.53	57.55
Non Retired	12.94	6.55	13.13	5.18	10.57	4.77	53.14
By income (grouped)							
up to \$35,000	5.96	2.28	14.16	4.75	9.00	2.44	38.60
\$35,001 to \$100,000	16.40	5.67	14.23	5.82	11.20	5.05	58.37
\$100,001 and above	21.50	11.85	12.65	5.54	13.75	6.15	71.45
By age category (grouped)							
young (<=29)	7.89	5.89	14.88	5.79	12.16	5.45	52.07
middle age (30-54)	16.33	6.91	15.10	6.57	8.29	7.88	61.08
older (>=55)	17.72	6.27	15.97	6.50	15.81	7.13	69.39
mixed ages	15.78	7.47	10.20	4.19	9.47	2.05	49.15
Comparison: Visitors to Normanton/Karumba (*)							
Retirees	9.47	1.54	4.43	6.09	6.66	2.09	30.30
Couples	11.62	5.11	4.08	4.37	21.20	4.43	50.81
Families	12.56	4.51	4.78	2.60	12.91	4.59	41.94
Travel groups	12.83	5.81	5.51	3.01	7.34	10.05	44.54
Singles	35.61	4.94	2.63	5.00	7.94	5.50	61.63

6.3 Tourist impact on the host community

No quantitative survey was conducted to estimate the tourist impact on residents and the community in the North Kimberley. However, on the basis of the research undertaken by Yuco Consultants (2003) and Greiner and Larson (2004) is reasonable to assume that a similar picture, in principle, would emerge to that found for Normanton/Karumba by Greiner et al. (2004) and shown in Figure 17.

Residents in the Gulf of Carpentaria perceive highly positive effects in terms of the local employment and business activity generated by

tourist spending. Certainly, businesses in the North Kimberley are equally harnessing the economic opportunities provided by tourism. However, the flow-on government spending in the region has been identified as missing in the North Kimberley.

The community derives a net social benefit from tourism. Social interactions with visitors and the fact that businesses and local government cater for visitors with increased product range and services were perceived as benefits. Issues that feature as negative in the Gulf, such as congestion of favourite fishing spots and demands placed by a predominantly retiree visitor market on health services, did not feature in the North Kimberley.

Figure 17: Perceived impacts of tourism on the resident population in the Gulf of Carpentaria

Source: Greiner et al, 2004



The Gulf community rated tourism as highly detrimental to elements of the environment, specifically in relation to the impact of recreational fishing on the fish stocks in rivers and estuaries. They also perceived that tourists had a negative impact on the availability of the fresh water (by wasting it on washing boats, etc) and that rubbish and sewage strained the local infrastructure. For the North Kimberley, the environmental issues related to litter, human faeces, spread of weeds, fire, and others, as identified earlier. Hercock (1999) proposed several indicators of environmental impact that might be relevant to the North Kimberley.

Overall, given the non-extractive nature of the environmental issues associated with tourism in the North Kimberley and the small extent of environmental harm caused by independent travellers, it could be expected that the environmental impact would rate rather lower in extent compared to the Gulf of Carpentaria.

6.4 Self-drive tourism—a Northern Territory perspective

The Northern Territory conducts an annual tourist monitor to analyse the size, composition and trends of tourism in the NT. It seems useful to contrast the North Kimberley independent travellers with the self-drive market in the NT (NT Tourist Monitor 2002/03). The Tourist Monitor distinguishes between fly-drive tourists (those who arrive by air and hire a car) and drive-drive tourists (those who enter the NT by car and continue to drive the vehicle around the region). The following provides an overview of the NT self-drive market.

It is estimated that 72% of interstate visitors to the NT self-drive in comparison to 34% of international visitors. This equates to 261,000 and 143,000 self-drive tourists, respectively. The trend in interstate self-drive has shown a slight decline over past years, contrasted by growth in international self-drive.

An increasing proportion (currently about 40%) of interstate self-drive tourists are fly-drive. Interstate visitors from Victoria/Tasmania and NSW/ACT have a higher share for fly-drive while visitors from South Australia and Western Australia tend to be drive-drive.

Interstate fly-drive tourists stay for an average 6.4 nights, compared to 8.0 nights for drive-drive tourists. Mean daily spending per tourist is estimated to be \$132 and \$95, respectively. International fly-drive tourists stay on average 4.9 nights spending \$151 per day, while drive-drive tourists stay 6.0 nights and spend \$106 per day. Fly-drive tourists typically spend more on accommodation (and prefer to stay in hotels/motels) than drive-drive tourists, who prefer to stay in caravan parks.

The international self-drive market is predominantly European, with key countries being Germany and the UK. About 20% of the drive-drive international visitors are from New Zealand. Approximately 50% of interstate drive-drive visitors use four-wheel drives (but just over half of those actually go four-wheel driving). About 15% of fly-drive visitors hire four-wheel drives.

The key sources of information for four-wheel-drive tourists are books, magazines and guides (42%), followed by word-of-mouth (20%).

The North Kimberley independent travellers share many socio-demographic features with the NT self-drive market. The key distinguishing feature is that the North Kimberley market represents the adventure spectrum of the self-drive market: it is a four-wheel drive market in a destination which offers few luxuries and where word-of-mouth is the key to attracting additional visitors.

Tourist spending in the North Kimberley is well below the NT values but excludes items such as car hire, major supply and fuel purchases, and the destinations offers very little hotel and motel-style accommodation and few souvenirs.

7 DISCUSSION

This section complements the discussion of tourism-related issues in the North Kimberley provided by Greiner and Larson (2004). That report dealt with the relationship between pastoral lessees and tour operators, Aboriginal participation in tourism—which has since been the focus of another study by the KLC (2004)—and concluded with an integrated and holistic view of community benefits from tourism.

In this report, the focus of discussion is on issues associated with the Gibb River Road, bush camping and infrastructure provision. The discussion is based on data presented earlier in the report and provides various estimates, for example of the traffic volume related to independent travellers along the middle section of the Gibb River Road and the aggregate extent of bush camping.

7.1 Tourist traffic on the Gibb River Road

Anecdotally, the Gibb River Road has seen a significant increase in the volume of traffic, which, supposedly, is generated predominantly by tourists. The perceived increase is not clearly evident from official traffic counts, which estimate vehicle movements on the Gibb River Road at 42,000 for 2003/04 (Greiner and Larson, 2004). It is important to note that the permanent traffic counter is at the Derby end of the Gibb River Road, about 9.5 kilometres from the intersection with the Derby Road.

Data from July/August 1999 suggest that there is more traffic at the Derby end of the Gibb River Road (131 vehicles per day) than at the Wyndham end of the road (82 vehicles per day). Average daily vehicle numbers past the Kalumburu turn-off were about 60 in either direction (KDC and DT, 1999).

From the results of the present survey—in combination with camper counts at Silent Grove/Bell Gorge—it should be possible to provide an estimate of the independent tourist

traffic in the middle section of the Gibb River Road. Traffic can be calculated on the basis of the following assumptions:

- All campers at Silent Grove/Bell Gorge drive the length of the Gibb River Road; and
- The camping profile of respondents is representative of all independent travellers along the Gibb River Road during 2004.

Of the survey respondents who travelled the length of the Gibb River Road, 48% stayed at Silent Grove/Bell Gorge for at least one night (35% for one night, 10% for two nights, and 3% for three or four nights). This equated to 75 travel parties spending a total of 101 nights at the camp sites.

CALM recorded 10,386 camper nights at Silent Grove/Bell Gorge during 2004. Taking into consideration mean size of travel party (2.47 persons) and mean duration of camping at Silent Grove/Bell Gorge (1.37 nights), the estimated number of travel parties camping there during 2004 was 3,122.

Adjusted by the proportion of respondents camping at Silent Grove/Bell Gorge, the total number of independent travel parties past Silent Grove/Bell Gorge was approximately 6,536 for the 2004 tourist season (or just over 16,000 tourists).

This estimate can be equated to the number of vehicles driven by independent travellers along the middle section of the Gibb River Road. A total of 6,536 vehicles is equivalent to an average of 36 vehicles per day for the duration of the tourist season (180 days) – and 66 vehicles per day during the peak month of July, which relates well to the North Kimberley Road User Study estimates (KDC and DT, 1999).

It is important to re-iterate that this estimate does *not* include other users of the Gibb River Road, including tour operators, people from local communities and stations, and business and service providers. Nor does it account for independent travellers covering the same piece of road multiple times.

7.2 Condition of the Gibb River Road

The Gibb River Road forms a vital aspect of the attraction of the North Kimberley to the current visitor market.

According to the North Kimberley Road User study (KDC and DT, 1999), the Gibb River Road was made up of:

79.6 km of sealed road,
383.2 km of paved (gravel) road,
143.5 km of formed (gravel) road, and
41 km of unformed road.

The road traverses a number of rivers—with river crossings impassable after rain—and negotiates several steep and windy jump-ups.

Since 1999, the road has seen major improvements including improvements to road safety of some critical sections and improved drainage allowing extended use of the road in the wet season. Several sections of the road were sealed and additional sections were paved.

During the 2004 dry season, the gravel sections of the road were graded five to six times. Average improvement and maintenance costs have been in excess of \$2 million per annum (Greiner and Larson, 2004).

Travellers can obtain updates on road closures and conditions on the Internet (www.exploroz.com/InfoPages/RoadConditions_WA.asp or www.sdwk.wa.gov.au/our_shire/road_report.html). It is generally recommended that vehicles have high clearance and are robust and well maintained, and preferably four-wheel drive. Towing of caravans is not advised. A maximum to 60 kilometres per hour is deemed to be a safe travel speed.

Road conditions were rated least favourably by respondents in their assessment of the elements of the North Kimberley tourist product (Figure 15). However, this assessment needs to be reviewed in the context of (1) absolute rating, (2) the comments that respondents added, and (3) the variety of roads and tracks that respondents used on their travel.

Table 12 provides a numerical representation of the rating of road conditions. It shows that a

relative majority of respondents rated roads as 'okay' and almost twice as many respondents rated roads as 'good' or 'very good' than 'bad' or 'very bad'.

Table 12: Rating of road conditions

Rating	Respondents	
	Number	Proportion
Very bad	11	5.8%
Bad	31	16.3%
Okay	71	37.4%
Good	54	28.4%
Very good	23	12.1%

The comments volunteered by respondents in relation to road condition are summarised in Table 13.

Table 13: Respondent commentary on Gibb River Road

Assessment and comments	Count
very bad - towing campervan	1
bad - but as expected	8
bad - but keep as is	4
okay - as good as or better than expected	15
okay - too easy/not rough enough	4
good - better than expected	16

These comments provided ample support for the attraction to the current visitor market of the Gibb River Road as a 'rough' road. One respondent who rated the road as 'bad' summed up the sentiment of numerous respondents by saying that this "added to the adventure—so wouldn't change anything".

In relation to other roads, out of 15 respondents who went to the Mitchell Plateau 13 described the track from the Kalumburu Road to the National Park as either "terrible", "shocking" or "very rough". Most of these respondents suggested that improved maintenance on the track would be desirable.

Plate 9: Structural road work



Plate 10: Grading



Plate 11: Corrugations



Plate 12: Pentecost River crossing



Twenty respondents suggested that ongoing maintenance, specifically grading, was required on the Gibb River Road. There was a tenor, though, that this should not result in an improvement of the road overall. Respondents further commented on sealing of the Gibb River Road. One respondent suggested that the road should be sealed while 22 respondents pleaded for the road not to be sealed.

Importantly, respondents drew a direct connection between road condition and visitor numbers and argued that further improvements would lead to a loss of the adventure/wilderness experience.

In summary, there was an overwhelming desire by the adventure travellers to the North Kimberley that the Gibb River Road should remain unsealed and maintained in a condition no better than that encountered by travellers during the 2004 tourist season. At the same time, improvements to tracks to and within National Parks were considered wishful.

There is a tension between the demands of the regional community and businesses, specifically the graziers—who prefer a smooth road to minimise travel time, wear and tear on vehicles, and commercial transportation costs—and a majority of tourists and tour operators, who see the Gibb River Road as part of a North Kimberley wilderness and adventure experience and therefore like to keep the road rough.

Ongoing gradual improvements of the road run the risk of inadvertently changing the character of the Gibb River Road and making it less attractive to adventure travellers. They would also result in better accessibility for standard travellers and people who travel with caravans. This would further reinforce a loss of appeal to the adventure spectrum of independent travellers.

During the consultation process for this research several locals of the North Kimberley reported increasing sightings of travellers in sedans and vehicles towing caravans.

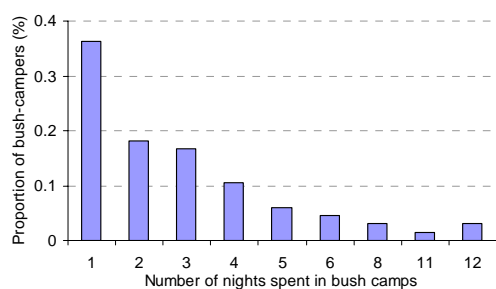
7.3 Bush camping

The prevalence of bush camping (ie. camping in unauthorised areas) has been identified by the regional community and landholders as a key concern for them. Greiner and Larson (2004) provided evidence of tours camping illegally. However, it is commonly attributed to independent travellers. It was found to be extensive in the North Kimberley Road User Study (KDC and DT, 1999).

This survey provides further proof. One third of respondents indicated that they stayed in bush camps at least once during their travel through the North Kimberley. It is therefore important to explore who the bush campers are in more detail.

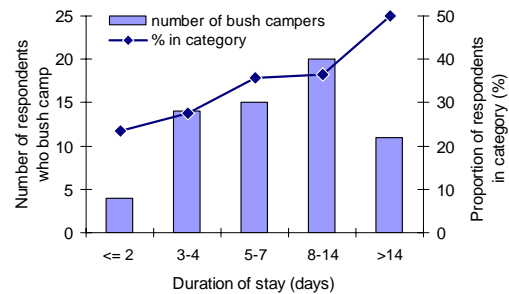
Among bush campers, 36% camp bush for one night only while the majority does so repeatedly: 35% camp bush on two or three nights and 29% for four or more nights (Figure 18).

Figure 18: Number of nights spent bush camping



Bush camping is not restricted to travellers who stay for longer periods of time, but is more prevalent among them. About 50% of respondents who stayed in the North Kimberley for more than two weeks engaged in bush camping (Figure 19).

Figure 19: Bush camping and duration of stay



Bush camping is more prevalent among travellers from within Australia, with 88% of bush campers being Australians.

Plate 13: Bush camping (1)



Plate 14: Bush camping (2)

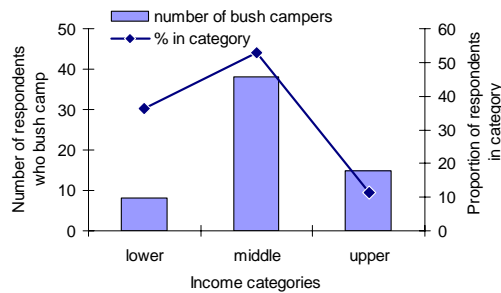


Bush camping is not directly related to income and therefore affordability of accommodation or paid camping. While only 10% of respondents on high household incomes bush camp, bush camping is more prevalent with respondents in

middle income categories than lower income categories (Figure 20).

There is no detectable link to whether travellers are retired—16% of bush campers are.

Figure 20: Bush camping and income



What seems to be emerging from this data is that bush camping is a philosophy. It forms part of the expectations and actions of adventure travellers who define the tourist market in the North Kimberley.

This conclusion was supported by the various comments volunteered by respondents on the questionnaires. They saw ‘roughing it’ as an essential part of their adventure/wilderness experience. Fourteen respondents noted that they would like to see more bush camping opportunities along the Gibb River Road.

Assuming that the vehicle estimate provided in Section 7.1 is valid, then it is possible to calculate the number of nights that independent travellers in the North Kimberley spent in bush camps. There were on average 2.47 passengers in a vehicle and respondents who travelled the length of the Gibb River Road spent on average 9.9 nights in the North Kimberley. This equates to an estimated 160,000 visitor nights. Of those, approximately 16.4% of nights were spent in bush camps, equivalent to approximately 26,000 visitor nights.

This number was lower than the 36,000 visitor bush camping nights estimated by the 1999 North Kimberley Road User Study (KDC and DT, 1999)—but the above estimate was a partial

estimate in that it took into consideration only those visitors who travelled the length of the Gibb River Road.

Travellers can be under no illusion that bush camping is in breach of an unwritten code of conduct—they receive advice to that effect from multiple sources. Road side signage, information brochures and maps advise travellers about appropriate behaviour in remote areas (Figure 21). However, bush campers exploit a lack of monitoring and enforcement—there are very few stories of illegal campers being moved on.

Figure 21: Traveller education about code of conduct

- (a) Roadside signage, Gibb River Road (available at either end and at the Kalumburu Road turnoff)



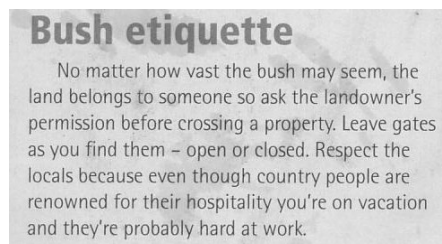
- (b) Derby Visitor Centre Guide to the Gibb River Road (2005 edition)

REMEMBER

- Always carry sufficient food and water for emergencies as they do happen.
- Land on either side of the Gibb River and Kalumburu Roads is privately owned cattle country.
- Camp in designated areas.
- Carry out all rubbish.
- Cash is necessary - as minimal credit card and eftpos facilities available.

Enjoy your adventure through the amazing Kimberley Outback.

- (c) HEMA Regional Map: The Kimberley (2005 edition)



Bush camping is considered by landholders to be the cause of many environmental and business management issues—including accidental bush fires, introduction and spread of weeds, and disruption to cattle mustering. However, they are resigned that due to the vastness and ruggedness of areas bush camping cannot be (entirely) controlled and are favouring an educational approach.

One strategy involves the use of station-specific signage in an effort to raise traveller awareness of the land tenure situation, engender co-operation from travellers for land management and prevent unwanted behaviour.

From the consultations undertaken for this research and the previous research (Greiner and Larson, 2004) it seemed that landholders—even those not in tourism—were generally embracing of tourism and travellers. There was also a perception that visitors to the region from adjacent towns such as Derby and Kununurra tended to be the ones who were most disrespectful of landholders rights and responsibilities and—along with people from local Indigenous communities—left most litter behind. This perception corroborates the research finding by Hercocock (1999) in remote areas of the Kimberley.

7.4 Basic amenities along the Gibb River Road

Basic facilities and services, such as roadside stops, seating, garbage bins and public toilets are sparse along the Gibb River Road. Principally—the only public facilities exist at March Fly Glenn. However, visitors to National Parks and visitors and customers of tourist businesses can use amenities provided there.

Respondents were asked whether they thought there was a need for additional basic facilities and services along the Gibb River Road, including bush camping areas, toilets, rubbish bins and sullage collection points, as well as the ongoing maintenance and management of such facilities.

Plate 15: Station sign announcing boundary



Plate 16: Advice for visitors to Adcock Gorge



Plate 17: Instructions to close the cattle gate



Plate 18: Shire of Derby West Kimberley sign warning against bush camping at May River



Plate 19: Public toilet and day rest facilities at March Fly Glen

Note the lack of maintenance at the time of observation in May 2004



Plate 20: Imintji store provides public toilets



Plate 21: New rubbish cage at the Kalumburu Road turnoff



Plate 22: Day rest area with amenities along the Great Northern Highway



A clear majority of respondents (60%) indicated that they did not see a need for additional basic facilities and services in the North Kimberley (Table 14).

Table 14: Expressed preference for status quo on facilities and services

Need for additional basic facilities/services?	Need for additional basic facilities/services?	
	Yes	No
All	40.0%	60.0%
By origin		
International	30.8%	69.2%
National	42.5%	57.5%
By workforce status		
Retired	40.0%	60.0%
Partially retired	22.2%	77.8%
Not retired	41.1%	58.9%
By income (grouped)		
up to \$35,000	45.0%	55.0%
\$35,001 to \$100,000	41.6%	58.4%
\$100,001 and above	33.3%	66.7%

A majority of respondents commented that they thought the level of infrastructure and service provision was entirely adequate for the North Kimberley as an adventure/wilderness destination. They equated a relative scarcity of amenities with a lack of mass tourism and pleaded to “keep the destination as it is”. As one respondent put it: “there are plenty of holiday options for people wanting facilities”.

International respondents tended to see less of a need for additional services and facilities than did domestic respondents. Respondents on higher incomes also tended to see less of a need than respondents on lower incomes—though none of these differences proved statistically significant.

Providing additional rest stops and amenities is not a simple question of political will and finances. New rest stops need to be considered under the 2002 Roadside Stopping Place Policy, which stipulates that (the Western Australian Department of) Main Roads “maintains the existing network of parking bays and provides additional bays when distances between appropriate rest opportunities (which includes

towns and commercial service centres) exceeds the guidelines of 40 kilometres for rural areas and 60 kilometres for remote areas”.

This recognises that additional rest areas may prevent tourists from staying in facilities provided in National Parks and on cattle stations.

Even though the North Kimberley is vast, there would be very few—if any—locations along the Gibb River and Kalumburu Roads that would qualify for additional rest stops. The policy thus effectively prevents Main Roads from pursuing additional rest stops if current rest opportunities are less than 120 km apart.

7.5 Financial contribution by tourists to the provision of basic amenities: concepts and feasibility

Respondents were asked whether they thought it fair that the cost of provision of basic infrastructure and services, and the costs associated with their maintenance, be raised from visitors.

The overwhelming majority of respondents (75%) supported the application of the ‘user pays’ concept in the context of the provision of tourist amenities (Table 15).

Table 15: Support for ‘user pays’ for basic infrastructure and services

Is it fair to raise costs from tourists?	Is it fair to raise costs from tourists?	
	Yes	No
All	74.7%	25.3%
By origin		
International	84.6%	15.4%
National	71.9%	28.1%
By workforce status		
Retired	71.4%	28.6%
Partially retired	87.5%	12.5%
Not retired	74.8%	25.2%
By income (grouped)		
up to \$35,000	65.0%	35.0%
\$35,001 to \$100,000	73.3%	26.7%
\$100,001 and above	83.0%	17.0%

International respondents and those on higher incomes tended to embrace the concept most readily. The lowest level of support—but still 65% in favour—was from low-income respondents.

There are multiple ways in which destinations can ask visitors to make a financial contribution to the facilities and services, including roads and environmental management. Concepts that people are most familiar with are that of a visitor pass or a camping pass.

These concepts were hypothetically introduced in the visitor survey with the intention of estimating the potential revenue, which the North Kimberley could expect to derive from the introduction of a visitor pays measure.

The principal options provided were (1) an annual visitor pass to the region—as a one-off payment per vehicle, (2) a 7-day camping pass to the region, and (3) an accommodation levy as an alternative option.

A visitor pass applies to all visitors to an area and is issued on a per vehicle basis for a stipulated period of time (commonly a calendar year). Visitor passes apply in some National Parks such as the Flinders Ranges and Kosciusko National Parks and Tasmania has a whole-of-state visitor pass to National Parks.

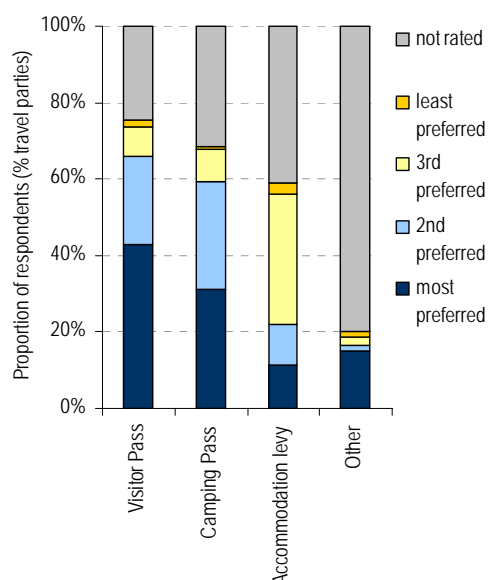
In contrast, a camping pass applies only to visitors who camp and is issued on a per-person or per-vehicle basis for a specified number of nights. Many National Parks issue camping passes or have per-night camping fees.

An accommodation levy is the equivalent to a bed tax, whereby people staying in a region/location are charged an additional amount above the commercial rate by the accommodation providers on a per-guest per-night basis. The tax revenue is passed on to a local/regional administration unit for the purpose of, for example, environmental management.

Respondents were asked to rate the appeal of the different concepts. They could also provide additional ideas of their own.

Figure 22 shows that the idea that was most frequently rated as well as best supported by respondents was that of a visitor pass. It was the mechanism of choice for 43% of respondents, equivalent to 57% of respondents who rated the instrument. The idea of a camping pass was the 2nd most preferred contribution mechanism, with 31% of respondents nominating it as their preference and a further 28% as their 2nd preference.

Figure 22: Preference for user-pays concepts for visitor contribution



There was a clear link between those respondents who rated the instruments and those who supported the ‘user pays’ concept in principle. The large majority of respondents who rejected the ‘user-pays’ principle declined to rate any of the concepts. Many of them commented that the introduction of charges might deter travellers from visiting the North Kimberley as it was already an expensive destination to get to and around.

Of those respondents who rated the payment mechanisms the majority also provided an estimate as to what they thought would be a

‘fair’ price for the destination to ask for either of the product alternatives. Table 16 summarises the findings.

Table 16: Willingness to pay for visitor or camping pass

	Visitor pass	Camping pass
Number of responses	106	91
Minimum value offered	\$5	\$10
Maximum value offered	\$500	\$300
Median	\$30	\$50
Mean	\$44.91	\$61.85
St.error	\$51.85	\$45.02

A wide range of amounts were provided, ranging from \$5 to \$500 in value. The willingness to pay for a camping pass was somewhat higher than for a visitor pass, with median amounts of \$50 and \$30, respectively, and mean amounts of \$62 and \$45, respectively.

The amount of potential revenue can be approximated on the basis of a number of assumptions, as demonstrated in Table 17.

These estimates are purely speculative. Not only do they extrapolate further on the basis of estimated of tourist traffic along the Gibb River Road (Section 7.1), they are further based on untested assumptions regarding the willingness of travellers to make such a payment. The purpose of the exercise is purely to gain an appreciation of the size of potential revenue to be able to comment on potential financial viability.

Assuming the independent visitor traffic estimate is correct and assuming also that 90% of visitors would purchase a visitor pass at a value of \$30 per vehicle (Scenario 1), the revenue of such a measure would be \$175,000.

Table 17: Hypothetical regional income from imposing a visitor contribution

Assumptions	Scenario 1 Visitor pass	Scenario 2 Visitor pass	Scenario 3 Visitor pass	Scenario 4 Camping pass	Scenario 5 Camping pass
Number of tourist vehicles / year	6500	13000	13000	6500	13000
Proportion of vehicles purchasing	90%	90%	75%	35%	35%
Amount charged per vehicle	\$30	\$50	\$50	\$60	\$60
Potential income for region	\$175,500	\$585,000	\$487,500	\$136,500	\$273,000

Scenario 2 assuming that the model might have underestimated independent traffic across the Gibb River Road by a factor of two and 75% of travel parties would purchase a visitor pass at a value of \$50 per vehicle. The resulting hypothetical revenue would be \$585,000. Scenario 3 assumes higher price elasticity of demand, resulting in fewer visitors paying the levy and therefore reduced revenue.

In addition to the previously mentioned caveats, it is also important to note that these revenue estimates do not take into consideration additional revenue generated from other road users, including tour operators.

Estimated hypothetical revenue for similar scenarios is explored in scenarios 4 and 5 for the concept of a camping pass, with hypothetical revenue estimated at \$136,500 and \$273,000, respectively.

It would appear that none of the scenarios has the potential to generate the kind of revenue required to fund additional infrastructure as well as maintain, monitor, enforce and administer the scheme. The principal reasons are the small visitor market and the low charges considered.

Further serious questions about the feasibility of tourist-pay schemes emerge when one considers the specific conditions applicable in the North Kimberley and the Western Australia policy framework.

The Gibb River and Kalumburu Roads are public roads with many different kinds of users. While the issue of differential charges is conceivably easy to resolve, it would appear that state legislation entrenches property rights

in relation to free use of public roads and does not provide for public toll roads. Only private landholders and CALM can implement road user charges.

The Gibb River and Kalumburu Roads adjoin land which is held in a variety of tenures (Greiner and Larson, 2004) and managed by the State, pastoral leaseholders, tourism business operators, and Aboriginal communities and organisation. Changes to road management would impact on all stakeholders and require careful consideration and comprehensive public discussion and consultation.

The implementation of a camping pass—on a fee for service basis—looks similarly infeasible. It would trigger the Western Australia Caravan Parks and Camping Grounds Act 1995. The Act stipulates that only licensed camping grounds can charge a fee. It imposes standards which seek to safeguard health and safety of users.

Thus, if camping fees applied for managed bush camps, these camps would in all likelihood look like camping areas in National Parks or on stations. This then raises the question whether travellers would see managed bush camps as satisfying their bush camping expectations or whether they would still seek to camp illegally.

The same legislation applies in the case that landholders wanted to charge bush campers a fee for camping in non-designated areas on their land.

A suite of operational and administrative aspects would also require clarification prior to the implementation of a visitor-pays system. Practicalities include the questions: Who would

collect the money? Who would make decisions as to how to spend the money? How would the scheme be monitored and compliance enforced?

A number of rangers would be required to patrol the Gibb River and Kalumburu Roads, equipped with vehicles and other necessary tools, which would make either scheme expensive and possibly generate visitor discomfort with a high level of policing.

The concepts also required that the fee would need to be readily collected at either end of the Gibb River Road, including the junction of the Geikie Gorge road and the Gibb River Road. Administrative expenses could possibly be kept low if existing visitor information centres and National Parks rangers collected the fees and sold the visitor or camping passes. However, this additional task might put undue burdens on centre and CALM staff during peak tourist season and require additional staffing.

The third concept explored, an accommodation levy, is suitable for some situations of (preferably) few and large accommodation providers. The levy would need to serve a clear purpose and its introduction would require a legislative/planning basis. Any levy is highly controversial, as the case of a Great Ocean Road Levy in Victoria has demonstrated. In the context of the North Kimberley it is not a suitable measure due the complex administration, the large share of camping and specifically since it could further aggravate the extent of bush camping.

Given the conceptual complications, legislative impediments, and uncertain financial and administrative dimensions, the idea of a tourist-pays system to support regional amenities and management needs to be rejected – unless a completely different concept can be conceived.

A voluntary payment mechanism would be legally feasible – and some travellers might want to purchase a ‘friends of the Gibb River Road’ badge. However, a small market, low anticipated adoption (ie. few travellers purchasing), resulting low revenue and high administrative costs would render such a

scheme both unviable and ineffective in terms of addressing the tourism management issues in the North Kimberley.

In summary, it appears futile to be pursuing this line of investigation further. The introduction of additional amenities and/or a tourist charge system could conceivably generate unintended adverse consequences, including new amenities drawing visitors away from regional tourist businesses, reduced visitor numbers, increased bush camping, and reduced experience value of the North Kimberley as a tourist destination.

The North Kimberley offers a nature-based tourist product with unique landscapes and ecosystems, accessible to the self-drive traveller by rough roads. The destination thus appeals to adventurous independent travellers. Sparse amenities fit that destination profile nicely. The combination of these aspects defines the North Kimberley as a special destination. There are no compelling reasons for changing either aspect of that special tourism product, neither from a tourism perspective nor from an ecosystem health point of view.

Impacts from bush camping and going to the toilet in the bush do not, in general, threaten ecosystem relationships and the functioning of natural systems in this savanna environment (Hercocock, 1999).

7.6 Other elements of the tourist experience

As evident from Figures 14 and 15, respondents displayed a high degree of satisfaction with their overall experience of the North Kimberley and virtually all elements of that experience. In addition to a quantitative rating, respondents also volunteered many comments, which provide useful feed-back and information for destination management.

Encounters with local people formed an important part of the experience that travellers have. It emerged from the comments that some of the best—as well as some of the worst—experiences were about encounters with local

people, specifically at tourist locations and in visitor centres.

Several respondents expressed disappointment with the number of other tourists they encountered—while isolated bush camp experiences featured among the stand-out experiences.

A few respondents specifically commented on the large number of tours and tour groups being “noisy” and “taking over” or “swamping” places of interest. Others expressed surprise at the number of campervans and caravans they had encountered.

Respondents shared the frustration with local people about litter and toilet paper they saw and encountered in the region. Both items were repeatedly commented on by respondents – however, some respondents noted that less litter was visible along the Gibb River Road than in other parts of the country. Some bush campers noted that they took away not only their own rubbish but also cleaned up after other travellers and removed toilet paper.

The community commonly attributes roadside litter to tourists. However, the perceived causality was not corroborated by the survey data. Only a few respondents (2%) said that they disposed of rubbish in the bush—while on the other hand some bush campers noted that they removed rubbish and toilet paper left behind by other campers.

The North Kimberley community has turned litter along the Gibb River Road into a catalyst for community engagement and collaboration through the Kimberley Kleanup, which is held in November each year and attracts growing numbers of volunteers.

Last year’s Kimberley Kleanup removed approximately 40 cubic meters of rubbish from along the roadside, with aluminium cans, toilet paper, food packaging, tyres and vehicle paraphernalia being amongst the top rubbish items collected (www.kimberleycleanup.com.au/2004stats.htm)

Plate 23: Volunteers in action as part of the Kimberley Kleanup



Plate 24: Volunteers with rubbish at the Kalumburu Road turnoff



Plate 25: Presentations and prizes at Mount Elizabeth Station



Plate 26: Locals partying after the cleanup



8 CONCLUSIONS

This research focused on a particular aspect of the North Kimberley tourism fabric. It dealt with the majority tourist market: the self-drive tourists. Based on what was previously known about tourism in the North Kimberley, and the survey-based data documented in the earlier sections of this report, this section seeks to answer the research questions, which are outlined in the Introduction.

1. Who are the self-drive tourists? Where do they come from? Why do they come? Where do they go and what do they do while in the region?

The independent travellers to the North Kimberley regions are predominantly middle-aged Australians, who travel in their own vehicle and whose household incomes tend to be above that of the Australian population in general. The international travellers are almost exclusively European, in their twenties and thirties, and most travel in hire cars. About one-fifth of travellers—both domestic and international—are repeat visitors.

The single most important drawcard is the North Kimberley landscape, its natural features and ecology. But travellers also come specifically to ‘do the Gibb River Road’ and have a four-wheel-drive experience. These expectations were very much couched within the context of adventure and wilderness experience.

Survey respondents stayed in the North Kimberley for an average of eight days, but a relative majority of travellers stayed for three to four days. A few stayed for several weeks. More respondents drove the Gibb River Road from east to west than from west to east.

Most visitor nights were spent at El Questro (20%), followed by bush camps (16%) and Mornington Wilderness Camp, Windjana Gorge and Bell Gorge (approximately 10% each). The most popular sites for day visits were Tunnel Creek (52% of respondents visiting) and

Windjana Gorge (35%) in the west and Emma Gorge (40%) in the east. Only a minority of travellers progressed north on the Kalumburu Road and go on to visit the Mitchell Plateau (7.6%).

Travellers were overwhelmingly satisfied with their experience in the North Kimberley. The high level of satisfaction extended to all aspects of the tourist product. Interestingly—even though road conditions received the least satisfactory rating—‘bad’ roads contributed positively to the overall experience.

2. What are the economic benefits tourists generate and the (environmental) costs?

The survey established that independent travellers spent less money per person per day in the North Kimberley than visitors typically spend in the Kimberley or in the Northern Territory. Respondents spent on average \$51 per visitor day—ranging from \$39 for travellers on low incomes to \$70 for retired travellers. It must be noted that these estimates did *not* include any spending by travellers outside the study area, which means estimates did not include car hire and expenses in urban centres such as Broome, Derby, Kununurra and Wyndham, where travellers fuelled up, stocked up on supplies, and possibly stayed in hotel/motel-type accommodation and ate out in restaurants. Specifically the fact that international respondents spent less (\$48 per person per day) than domestic respondents (\$60 per person per day) needs to be interpreted in the context that international travellers predominantly hire their vehicles, at a base rate of approximately \$150 per day.

However, travellers spent more per person per day than did visitors to the Carpentaria Shire in North Queensland during 2002/03. Specifically, retired travellers in the North Kimberley spent about double the daily amount than retired visitors in the Carpentaria Shire—which, as a destination, provides visitors with town-based infrastructure and services.

The population of the North Kimberley is predominantly Aboriginal. Yet there is little involvement of the Aboriginal community with tourism and therefore few economic benefits from tourism flow to Aboriginal communities. A recent scoping study (KLC, 2004) documents the aspirations of the North Kimberley Traditional Owners in relation to land management in general and to how they are seeking to maximise direct and indirect benefits from tourism.

One of the negative aspects that the community and landholders mentioned about tourists was their propensity to bush camp, i.e. camp overnight in areas within pastoral leases, roadside reserves or conservation areas, which were not designated camping areas. The survey results supported this observation with 38% of respondents reporting that they spent at least one night in a bush camp. Sixteen per cent of total visitor nights were spent in bush camps. On the basis of survey results, this might equate to as many as 26,000 bush camping nights along the Gibb River and Kalumburu Roads during 2004.

Bush camping forms part of the adventure and wilderness experience that travellers are seeking in the North Kimberley. It is not primarily a question of affordability, specifically since travellers tend to be on high incomes and camping in National Parks or on stations is inexpensive. In the absence of strict enforcement of unlicensed camping the practice is unlikely to change.

The vast majority of travellers went to the toilet in the bush at least once during their travel. Travellers in general did not mind this and relatively few stipulated a need for additional public toilets. However, apart from the visual impact of unburied human waste and toilet paper, the only concern is in relation to human health. According to the literature, the environmental impact would be low given the climatic conditions and the long off-season for tourists.

This research found that—compared to a destination such as the Gulf of Carpentaria, where tourists cause substantial negative environmental impacts—the impacts of independent travellers in the North Kimberley appeared minor and that education of travellers would hold the key for a reduction of impacts.

3. How can tourism infrastructure and management assist in maximising the net benefit of tourism to communities and people along the Gibb River Road?

Basic public infrastructure

There are very few public amenities along the Gibb River Road where tourists can go to the toilet or dispose of waste. In fact, the only public toilet is at March Fly Glen and two public rubbish cages are near Windjana Gorge and, installed in 2005, at the turnoff of the Kalumburu Road. However, travellers can use the facilities provided at tourist businesses and on stations if they visit and/or stay there. As of 2005, there are also arrangements in place between local government and some land holders who dispose of traveller rubbish.

The issue of providing additional public amenities is not simply a question of political will and financial resources. State policies require minimum distances of additional roadside stops of 60 km from service centres and tourist businesses so as to prevent rest areas and amenities taking away customers from regional businesses.

The traveller survey established that a clear majority of respondents considered the level of basic infrastructure and service provision they found in the North Kimberley during 2004 entirely adequate. Respondents equated a relative scarcity of amenities with a lack of mass tourism and pleaded to “keep the destination as it is”. As one respondent put it: “there are plenty of holiday options for people wanting facilities”.

The regional community holds a perception that tourists should be contributing financially to the provision of public infrastructure and share the costs associated with management and maintenance. Survey respondents were, in principle, willing to make such a contribution.

The study hypothetically explored the suitability of either a visitor pass (compulsory levy for travellers of the Gibb River Road) or camping pass (compulsory fee imposed on bush campers) to generate revenue to support basic infrastructure provision and management. Neither concept appeared able to generate sufficient funds to support a comprehensive user-pays scheme due to the low overall visitor numbers to the region and the low fee/levy amounts considered. Traveller numbers might decline if the demand for travelling the region was price sensitive to the introduction of a levy or fee.

Furthermore, neither concept proved conceptually convincing due to the geographical conditions and the diverse tenure situation, which was quite unlike the situations where such measures typically apply. Quite apart from the legislative/policy environment being adverse to a fee or levy, it was difficult to envisage a straight-forward way of collecting the levy/fee and enforcing the concepts. It was further found that the concepts could have unintended negative consequences, such as enticing more bush camping, and could adversely affect the reputation of the region as a friendly destination and the viability of tourist businesses along the Gibb River Road.

The Gibb River Road

The current state of the Gibb River Road—and its reputation as a rough road—acts as a barrier to the type of mainstream traffic (trucks, sedans, caravans), which can be encountered on the Great Northern Highway. At the same time, it provides a key attraction to adventurous independent travellers. The Gibb River Road is

a crucial element of the tourist product, which the North Kimberley has to offer.

There was an overwhelming desire expressed by the survey respondents that the Gibb River Road should remain unsealed and maintained in a condition no better than that encountered by travellers during last season. Certainly, the state of the road during 2004 had very broad acceptance by travellers.

There was a tension between the demands of the regional community and businesses, specifically the graziers—who preferred a smooth road to minimise travel time, wear and tear on vehicles, and commercial transportation costs—and a majority of tourists and tour operators, who wanted to experience the Gibb River Road as part of a North Kimberley wilderness and adventure experience and therefore preferred to keep the road (somewhat) rough.

Ongoing gradual improvements of the road run the risk of inadvertently changing the character of not only the Gibb River Road but of the entire North Kimberley as a destination. If accessibility to mainstream travellers was provided, the volume and type of tourism in the North Kimberley would irreversibly change, which would bring a suite of new opportunities but also challenges.

There was no pressure evident to seal the Gibb River Road. However, exploration and mining developments in areas of the North Kimberley could change that situation.

Private infrastructure

Greiner and Larson (2004) identified grazing lessees as the principal providers of tourism facilities and services along the Gibb River Road. During the survey year there was also one shop (Imintji) and the Mt Barnett Roadhouse which provided services to independent travellers and tour operators.

Since the North Kimberley Road User Study was conducted in 1999, there was significant private investment into the provision of new tourist facilities and services. Infrastructure additions occurred on cattle stations—both

through expansion of existing facilities and new entrants—and on Aboriginal-held land—specifically the safari camps provided at Imintji and Marunbabidi, which cater predominantly to the tour market.

The traveller survey clearly identified El Questro as the focal point of tourism along the Gibb River Road in terms of overnight stays. It also provided evidence that new additions to the tourist market are readily adopted by travellers. Mornington Wilderness Camp and Home Valley Station commenced tourist operations in the 2004 tourist season and attracted a significant proportion of respondents as customers.

In summary, this research emphasised the findings of earlier research by Yuco consultants (2003) and Greiner and Larson (2004) that an integrated regional planning approach is required in the North Kimberley. Issues of visitor management, land management, infrastructure development and road maintenance/improvement are intrinsically interwoven. Unless issues are considered in a holistic context, well-intended actions by one decision maker could easily have unplanned long-term consequences.

Incremental growth and change in the absence of an appropriate management framework pose the key threats to the region. This research provides the region with valuable information—based on systematically collected data—for consideration by decision makers and input into evidence-based planning.

The North Kimberley offers a nature-based tourist product with unique landscapes and ecosystems, accessible to the self-drive traveller by rough roads. The destination thus appeals to adventurous independent travellers. Sparse amenities fit that destination profile nicely. The combination of these aspects defines the North Kimberley as a special destination. There are no compelling reasons for changing either aspect of that special tourism product, neither from a tourism perspective nor from an ecosystem health point of view.

A vision for the North Kimberley, planning and the development of a future management framework could be positively influenced by the adoption of a broader perspective—namely considering the region's assets in the context of the whole-of-Kimberley, Western Australia, Australia's tropical savannas and beyond.

The research focused on one particular aspect of tourism in the North Kimberley. Anecdotally, key growth areas of tourism in the region are marine tourism along the North Kimberley coastline and fly-in tourism. Very little is known about these forms of tourism, the activities, the tourists, their benefits or impacts. In the absence of such information it is impossible to assess the benefits and costs of these forms of tourism to the region and its community, and it is difficult to design and implement policy and management frameworks.

The research also focused on only one area within the Kimberley region. Valuable insights could be gained from a study of travellers along the Great Northern Highway in relation to possible consequences of enabling accessibility of the Gibb River Road to mainstream traffic. Further, a majority of tourism appears to be focussing on the East Kimberley and its variety of attractions. A comprehensive understanding of the net benefits and management issues associated with tourism in that region greatly assist broader regional planning and management.

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10 APPENDIX 1: THE TRAVELLER QUESTIONNAIRE

Return completed survey to: CSIRO * REPLY PAID 79986 * Aitkenvale BC QLD 4814 Page 1

Where did you pick up this form? Please advise.....

1. **Where is your place of residence?** Please tick relevant answers and provide additional information.

- ₁ Australia → post code:
₂ Overseas → country:.....

2. **When did you travel the Gibb River Road?** Please advise and tick your entry and exit points.

From date (dd/mm/yy) to date (dd/mm/yy)

- Entry from: _{A1} Kununurra/Wyndham Exit to: _{B1} Kununurra/Wyndham
_{A2} Derby/Broome _{B2} Derby/Broome
_{A3} Fitzroy Crossing _{B3} Fitzroy Crossing

3. **What is your vehicle set-up?** Please tick relevant answers.

- _{A1} hire _{B1} Four-Wheel Drive _{C1} Trailer
_{A2} personal _{B2} Sedan _{C2} Caravan
_{B3} Motorhome/Campervan _{C3} Boat
_{B4} other (specify).....

4. **What age are the members of your travel party?** Please indicate number of persons in each age group.

<=16	17-29	30-39	40-54	55-64	>65

5. **Are you retired?**

- ₁ yes
₂ no

6. **What brought you to the North Kimberley?**

Please rate your reasons for visiting in ORDER of PRIORITY. Write priorities in the circles provided:
 1=most important, 2=2nd most important and so on (as many as relevant).
 You may add additional categories.

- _A Business or work
_B Visiting family or friends
_C Been there before and wanted to come back
_D Four-Wheel Driving; The Gibb-River-Road experience
_E Gorges, waterfalls and scenery
_F Fishing
_G Rock paintings
_H Adventure
_I Remoteness/wilderness
_J Isolation/few people
 Other, please specify

7. **What were your key sources of information prior to travel?** Please rate in ORDER OF PRIORITY.

- _A Travel agent
_B Internet/WWW
_C Travel guide(s); please specify

10. **How satisfied are you with your North Kimberley experience OVERALL?**
Please tick one appropriate box.

<i>Well below expectations</i>	“Okay”	<i>Way above expectations</i>
<i>Extremely dis-satisfied</i>		<i>Extremely satisfied</i>
<input type="checkbox"/> _2.....	<input type="checkbox"/> _1..... <input type="checkbox"/> _0.....	<input type="checkbox"/> _1..... <input type="checkbox"/> _2

11. **What was your most POSITIVE experience?** Please *explain*.

.....

.....

12. **What was your most NEGATIVE experience?** Please *explain*.

.....

.....

13. **Please rate the following aspects of the tourist product of the North Kimberley and comment on your experience?** Please *tick and explain*.

	Very bad	Bad	Okay	Good	Very good	
Natural features/landscape.....	<input type="checkbox"/> _2	<input type="checkbox"/> _1	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	.....
Wildlife/birds.....	<input type="checkbox"/> _2	<input type="checkbox"/> _1	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	.....
Accommodation/Camping.....	<input type="checkbox"/> _2	<input type="checkbox"/> _1	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	.....
Toilets/Rubbish.....	<input type="checkbox"/> _2	<input type="checkbox"/> _1	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	.....
Road(s).....	<input type="checkbox"/> _2	<input type="checkbox"/> _1	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	.....
Signage.....	<input type="checkbox"/> _2	<input type="checkbox"/> _1	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	.....
Friendliness of locals.....	<input type="checkbox"/> _2	<input type="checkbox"/> _1	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	.....
Availability of fuel/supplies.....	<input type="checkbox"/> _2	<input type="checkbox"/> _1	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	.....
Adventure experience.....	<input type="checkbox"/> _2	<input type="checkbox"/> _1	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	.....
Four-Wheel drive experience.....	<input type="checkbox"/> _2	<input type="checkbox"/> _1	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	.....
Remoteness/Wilderness.....	<input type="checkbox"/> _2	<input type="checkbox"/> _1	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	.....
Isolation/few people.....	<input type="checkbox"/> _2	<input type="checkbox"/> _1	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	.....
Other.....	<input type="checkbox"/> _2	<input type="checkbox"/> _1	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	.....
Other.....	<input type="checkbox"/> _2	<input type="checkbox"/> _1	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	.....
Other.....	<input type="checkbox"/> _2	<input type="checkbox"/> _1	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	.....

14. Tourist facilities and services in the North Kimberley are sparse.
How often during your trip to the North Kimberley were you forced to.....? Please *tick*.

	Never	Once during entire trip	Twice	Once	Twice/more per day
... dispose of rubbish in the bush.....	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5
... go to toilet in the bush.....	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5
... have a campfire outside designated areas.....	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5
... wash in natural stream (with soap/detergent).....	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5
... dispose of caravan sullage in the bush.....	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5
... camp outside licensed camping areas.....	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5
... cut through fences.....	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5
... shoot animals.....	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5
... fish illegally.....	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5
... Other (<i>specify</i>).....	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5

10. **What do you consider the key areas for improvement of the tourist product in the North Kimberley?**

Please *explain*.

.....

11. The provision of additional basic facilities and services along the Gibb River Road (such as bush camping areas, toilets, rubbish bins, sullage collection points) and the maintenance, cleaning and management of such sites will require financial resources, which the small regional community cannot afford. Visitors will need to make a financial contribution if they want these additional facilities and services.

Do you see a need for these additional basic facilities and services?

- _{A1} yes → *specifically*.....
- _{A2} no → *please explain why not*.....

Do you think it is fair that the costs of these facilities and services be raised from visitors?

- _{B1} yes → *specifically*.....
- _{B2} no → *please explain why not*.....

12. **If a visitor contribution was to be introduced, what would be the most effective way to administer it?**

Please *rate* in ORDER OF EFFECTIVENESS, place number in circles (1=most effective; 2=2nd most effective; etc).

- 1 Purchase a visitor pass to the North Kimberley region**
 Similar to Flinders Ranges or Kosciusko National Parks: Pay a one-off amount per car. Receive car sticker valid for calendar year and up-to-date regional information package. No additional camping facilities provided but day-time rest stops with toilets/rubbish/sullage.
 → **What would you consider a 'fair' price for a visitor pass?** \$
- 2 Purchase a camping pass to the region**
 Similar to many National Parks: Pay amount depending of length of stay in region. Pass to be displayed for camping in Shire-provided areas (which are controlled and managed by Rangers).
 → **What would you consider a 'fair' price for a 7-day camping pass?** \$
- 3 Pay an accommodation levy at each homestead and licensed camping ground**
 A specified amount per camp/room per night would be added to your accommodation bill and forwarded to the shire councils. Free camping would be vigorously pursued by Rangers.
- Other, please specify and explain**.....

13. **In what category would you place your total annual gross household income?**

(Please *tick one box only* - For non-family groups, please add all pre-tax incomes - \$AU)

- | | |
|--|---|
| <input type="checkbox"/> ₁ \$ 1 to \$20,000 | <input type="checkbox"/> ₆ \$ 100,001 to \$150,000 |
| <input type="checkbox"/> ₂ \$ 20,001 to \$35,000 | <input type="checkbox"/> ₇ \$ 150,001 and above |
| <input type="checkbox"/> ₃ \$ 35,001 to \$50,000 | <input type="checkbox"/> ₈ don't know |
| <input type="checkbox"/> ₄ \$ 50,001 to \$75,000 | <input type="checkbox"/> ₉ prefer not to specify |
| <input type="checkbox"/> ₅ \$ 75,001 to \$100,000 | |

14. **Are there any comments you would like to make, in relation to this survey or in general?**

.....

Thank you very much for your time and collaboration!