



The Economic Significance of Trekking on the Kokoda Track, PNG in 2012



Report to the
KOKODA TRACK AUTHORITY
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Managing the Track with Trust, Respect and Pride
www.kokodatrackauthority.org

Acknowledgements

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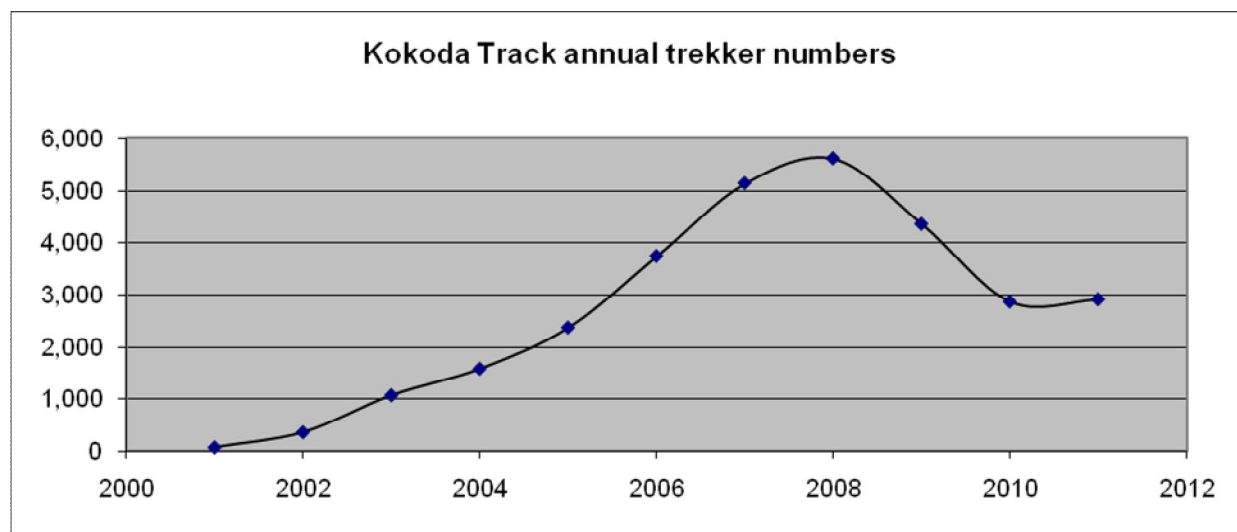
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Introduction

The Kokoda Track is the single most important experience for Australians visiting PNG. Between 2005 and 2010, PNG received on average more than 32,000 arrivals from Australia. Business (work-related) trips accounted for the majority of trips (61%) with pleasure/holiday trips accounting for around 26% of trips, and the remainder was visiting friends and relatives (9%) and other purposes (4%). Tourism from Australia generates on average more than \$100 million in expenditure annually in PNG, making it a significant sector of the PNG economy.

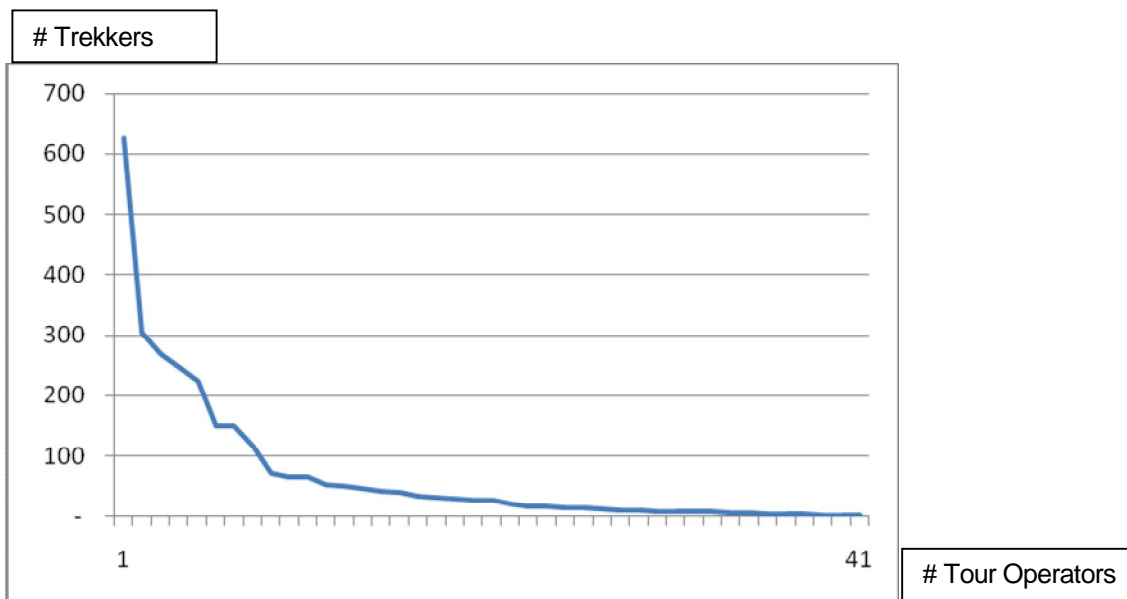
Over the same period 2005 to 2010, an average of just over 4000 Australians per annum trekked the Kokoda Track. Trekking numbers did vary substantially over that period, due in part to negative media exposure towards the end of the 2009 trekking season following the plane crash on the Kokoda Track and the deaths of four trekkers as well as the broader tourism impacts of the Global Financial Crisis and tourism market saturation (see Figure 1).

Figure 1 – Annual Trekker numbers 2000 to 2011.



Data from the KTA indicated that the Kokoda Track trekker numbers peaked in 2008 at 5,621 and then declined to 2,871 in 2010 then recovered slightly to 2,916 in 2011. The substantial growth in trekker numbers and growth in tour operators over the last decade has been attributed to greater awareness and respect of the military service and sacrifice of all those who served in PNG during World War II. The growth in tour operators has been substantial, supported by the introduction of a licensing system and associated code of conduct for tour operators. However, approximately half of all tour operators holding a license in PNG are currently not conducting tours due to problems accessing the Australian market for trekking. The 40 tourism operators in PNG employ local guides and porters as well as purchasing local food, equipment, transport and accommodation services. The scale of tour operations on the Track varies widely, with 80% of trekkers joining one of the top ten tour Australian based operators, and a “long tail” of smaller PNG based tour operators taking the remaining 20% of trekkers (Figure 2).

Figure 2 – Tour Operators and Trekker Numbers in 2011



Camping in Villages along the Kokoda Track and Significant Historical Site of Butch Bisset’s Death on the Kokoda Track | Photos by Rob Burdock



Purpose of this Study

The purpose of this report is to analyse the revenue and expenditure of tour operators and trekkers on the Kokoda Track and demonstrate its economic importance to the PNG and Australian tourism economy, the local economies along the track and the peoples of the Owen Stanley Ranges.

Study Method

Data on visitor arrivals, expenditure, activities and duration of stay in PNG is not available from the National Statistical Office of PNG, so some variables will need to be interpolated from the revenue and expenditure patterns of Kokoda Trekking Tour Operators (TOs) based in Australia. Whilst the collection of primary data from the trekkers would be the optimal research approach for this project, the timeframe and budget did not allow for such an approach.

Hence, secondary data provided by the KTA and TOs in Australia will be employed as the basis for estimation of:

- Total direct economic value (TDEV) of Trekking Tourism on the Kokoda Track in 2011
- The proportion of TDEV accruing to the PNG economy
- The proportion of TDEV accruing to villages along the Track
- The proportion of TDEV retained in the Australian economy

Data will be obtained from Tourism Research Australia for Australian arrivals to PNG which will include estimates of arrival numbers, expenditure, purpose of travel and other relevant variables.

The top ten Australian Trekking Operators licensed to access the Kokoda Track by the KTA were contacted to participate in an interview in relation to their package tour costs, client numbers in 2011 and the distribution of expenditure to service providers in PNG (including villages along the Track) and Australia. One operator declined to be interviewed and two others were unable to be contacted during the study period, resulting in responses from seven operators and a response rate of 70 per cent. These seven operators account for 58 percent of all trekkers on the Track in 2011, and as such can be considered as representative of the majority trekking operations.

Their responses formed the basis for estimating of the direct economic value of trekking on the Kokoda Track in 2011, as well as projections under future visitation scenarios.

In order to forecast the economic impacts of changes in trekking tourist arrivals over the next ten years, which has shown both significant growth and decline in the last decade, scenarios of 10, 20 and 30 percent change (both increase and decrease) were tested. These will be based on the Total Direct Economic Value [TDEV] in 2011 as a base year, adjusted to take account of cost inflation.

In accordance with the forecasting methods used by Tourism Research Australia, TDEV will also include the value of subsidised services provided to visitors. In the case of the KTA, this will include the proportion of the total budget in 2011 allocated to management of the Track and other services that support trekking. In addition, revenue to international airlines and fees accruing to the PNG government through visa fees will be included in TDEV.

Findings

The average duration of treks in 2011 was nine days and the average cost was \$3889.

Table one provides a breakdown of expenditure per trekker by TOs in PNG. The highest expenditure items were porters (including tour leaders, cooks and medics), internal air transport and pre- and post-trek accommodation. Table 2 estimates expenditure in PNG by the trekkers themselves, with highest expenditure on personal porters at an average cost of \$546, post-trek food and beverage \$80 and expenditure on souvenirs of \$156 after their trek. About 41 percent of trekkers use a personal porter, as recommended and arranged by the TOs.

Table 1 – Average Tour Operator Expenditure per Trekker in 2011

Item	Expenditure (AUD)
Pre-trek accommodation	175
Air transport within PNG	206
Accommodation on the Track	90
Food supplies	155
Equipment	49
Porters	462
Post-trek accommodation	200
Bus transport	24
TOTAL	1361

Table 2 – Average Trekker Expenditure in 2011

Item	Expenditure (AUD)
Return airfares from Australia	1,500
PNG Visa	50
Spend on Track	30
Personal Porter	546 (nb *41% of trekkers take a personal porter)
Post-trek food and beverage	80
Post-trek Souvenirs	156
Total	2040

Total Direct Economic Value of Trekking in PNG

TDEV accruing to the PNG is estimated using the total trekker numbers in 2011 multiplied by total travel operator expenditure per trekker, plus trekker expenditure on the trip (including airfares). In accordance with the forecasting methods used by Tourism Research Australia, TDEV will also include the value of subsidised services provided to trekkers.

TDEV also includes the expenditure of the KTA. In 2011 AUD70,000 was paid to landowners Wards and AUD18,000 paid in Track Maintenance payments.

The Ward payments are a 'dividend' to the communities as a percentage of total trek permit fees collected.

Trek permits are about AUD150 per trekker (half price for students). Total revenue for the KTA in 2011 is approximately AUD420, 000, of which AUD 88,000 was returned directly to landowners/communities in cash and/or provision of services and facilities. KTA Management costs are approximately AUD265,000 (wages, salaries, rent, track maintenance, board fees and office utilities) and the Tourism Promotional Authority PNG spends a further AUD50,000 a year on promotional activities.

TDEV is based on:

- Total trekker numbers of 2,858 in 2011.
- Average Tour Operator expenditure per trekker in PNG of AUD1,361

- Total direct TO expenditure of AUD3,889,738
- Average Trekker expenditure of AUD2040 (including international airfares)
- Total direct Trekker expenditure of AUD5,830,320
- Average direct Trekker expenditure in PNG of AUD540 (excludes international airfares)
- Total direct Trekker expenditure in PNG of AUD1,543,320
- Net KTA expenditure AUD88,000
- **Total Direct Economic Value of trekking on the Kokoda Track to PNG in 2011 is AUD9,808,058**
- **The highest expenditure was on international airfares of AUD4,432,876**

Tour Operator Revenue

In terms of revenue to Australian based TOs in 2011, there was:

- 2,105 trekkers in 2011.
- Average cost per trekker was AUD 3,889.
- **Total revenue to Australian Tour Operators on the Kokoda Track in 2011 of AUD8,186,345.**

In terms of revenue to PNG based TOs in 2011:

- 753 trekkers in 2011.
- Average cost per trekker was AUD2,500.
- **Total revenue to PNG Tour Operators on the Kokoda Track of AUD1,882,500**
- **Therefore, total revenue generated for TOs in 2011 was AUD10,068,845.**

Total Direct Expenditure in the Villages on the Track

Average nights on the track was nine days and accommodation costs on track was AUD10 per night. Hence total accommodation expenditure on accommodation in villages along the Track was AUD257,220

Expenditure by trekkers of food and beverage along the track is AUD30 per trekker. Hence total expenditure of food and beverages along the Track was AUD85,740.

As previously noted, expenditure by trekkers on personal porters, as recommended and arranged through the TOs was significant. It is assumed that most of this expenditure paid to porters (estimated at AUD462 per porter) also accrues to villages and landholders along the Track, even though the porters may be living in Port Moresby. This being the case, TOs generate AUD1,320,396 in payments for porters from villages along the Track and trekkers generate another AUD63AUD541,362 in payments for porters from villages along the Track. Porter expenditure includes food for porters along the track and a domestic flight to return them to Port Moresby at the end of each trek. It is estimated that 75% of porters originate from Koiari villages, so that proportion of total expenditure accruing to villages was AUD1, 396,319 in 2011.

As previously estimated, the KTA allocated AUD 88,000 in Ward payments and track maintenance payments to villages on the Track.

Hence total direct expenditure accruing to villages on the track was AUD 1,827,059.

Sensitivity Analysis

As previously noted, annual trekker numbers have varied widely between 2001 and 2011 from a low of 78 in 2001 to a peak of 5,621 in 2008. Average annual trekker numbers 2001 to 2011 was 2,740. However, removing the low of 78 trekkers in 2001 as an 'outlier' in the dataset, the ten-year average is 3,006 trekkers.

Using the ten-year average as a baseline, sensitivity analysis of a 10, 20 and 30 percent increase/decrease in trekker numbers and the impact on TDEV is depicted in Table 3.

As is shown in Table 3, trekker numbers are expected to vary between 2,104 and 3,908 under the -30% to +30% scenarios. Assuming KTA net expenditure remains constant at AUD55,000, TDEV ranges from AUD4,008,386 to AUD 7,398,162.

Table 3 – Sensitivity Analysis of an Increase/Decrease in average trekker numbers and TDEV

Percent Increase (+)/Decrease (-)	Change in trekker numbers (+/-)	TDEV (+/-) in AUD
+30	3908	7,398,162
+20	3607	6,832,753
+10	3306	6,266,984
-10	2706	5,139,564
-20	2405	4,573,975
-30	2104	4,008,386

Summary

This research has demonstrated the economic significance of the Kokoda Track for the PNG economy and for villages along the Track, based on existing data and tour operator information. Whilst a survey of trekkers would provide primary information on direct expenditure on Kokoda treks by Australians, data from tour operators did provide a good indication of the Total Direct Economic Value generated in 2011.

The top ten tour operators in PNG in 2011 accounted for 81% of trekkers, hence the data obtained from this sample is in all probability representative of the population of trekkers in 2011.

Seven of the top ten operators participated in the research, with one operator declining to participate and one unable to be contacted. All TO data provided is confidential and stored in a secure location, and only the aggregated data is presented in this summary. A number of issues were raised during the TO interviews that were pertinent to this research, including:

- The high proportion of small, unprofessional TOs undermining the quality and experience provided by the larger TOs
- The limited availability of locally produced fruit and vegetables, other food and beverage and souvenirs along the Track.
- The risks of operating along the Track without adequate emergency communications, medical services and insurance cover.
- The limited availability of camping areas in villages during busy trekking periods.
- The need for all TOs to operate in a culturally and socially responsible way.
- The need for the Track to remain a challenge and kept in its natural form.

This feedback has a bearing on the management of the Track as well as the levels of TDEV that can continue to be generated in the future.

Total Direct Economic Value of trekking on the Kokoda Track in 2011 is estimated at AUD15,275.374. This estimate is based on the expenditure of TOs, trekkers (on treks and international airfares), as well as expenditure by the KTA in 2011

Approximately one-third (36%) of the TDEV of trekking accrues to PNG including 12% to the Villages along the track, estimated at AUD1,827.059 in 2011. Importantly, this figure includes the expenditure of TOs and trekkers on porters, local guides and leaders, a proportion of whom are presumed to originate from villages along the Track. It is also estimated that some 41% of trekkers choose to use a personal porter, hence any increase in the engagement of personal porters would result in a substantial increase in both TDEV and income for the villages along the Track.

Australian based TOs retain approximately one third (35%) of TDEV in Australia, over and above their expenditure in trek operations in PNG. Finally, it is unknown as to the use of international airlines by trekkers in 2011, but about one third (29%) of TDEV accrues to international airline such as Qantas and Air PNG (see Table 4).

Table 4 - Summary of TDEV

Expenditure	AUD
Australian based TO expenditure in PNG	2,864,905
PNG based TO expenditure in PNG	1,024,833
Trekker expenditure in PNG	1,543,320
KTA expenditure in PNG	88,000
Expenditure retained in Australia	5,321,440
International Airline expenditure	4,432,876
TDEV to PNG	5,521,058 (36%) (includes 1,827,059 [12%] in Villages)
TDEV to Australia	5,321,440 (35%)
TDEV to International Airlines	4,432,876 (29%)
TDEV	15,275,374

Limitations and Recommendations

This study was based on secondary data obtained from the KTA and Tour Operators which relied on the recall and estimates of respondents with respect to their revenue and expenditure. Thus the study has the usual limitations with respect to recall bias.

It is recommended that future studies obtain primary data from the trekkers themselves, in addition to a more detailed survey of tour operators, airlines and government authorities associated with trekking tourism in PNG.