

Tourism Satellite Account 2002 Fiji Islands



The contribution made by tourism to the Fiji economy

August 2008

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Preface

Tourism has continued to grow in Fiji. It has generated increased awareness as it impacts the economy and employment and as a consequence has socio-cultural and environmental implications. However, unlike the output-defined industries like manufacturing and construction that get measured as sectors in their own right in National Accounts, the demand-driven tourism industry does not get measured. To be able to better understand the true size and value of the tourism industry so as to increase economic growth and create more and better jobs, hard figures that are internationally comparable and reliable needed to be produced. So therefore, compiling a Tourism Satellite Account (TSA) by the Fiji Islands Bureau of Statistics (FIBOS) is an important step towards understanding the economic size and strength of tourism in Fiji. The TSA is an extension of the core system of national accounts: satellite accounts are an important recommendation of the international standards, the System of National Accounts 1993.

TSA 2002 was compiled under the guidelines that were approved by the United Nations Statistical Commission in 2000 and that which were published by the World Tourism Organization (WTO). The TSA project was implemented by the FIBOS and funded by the New Zealand Aid (NZ Aid) and the Fiji Government. The report complements a 1995 TSA (also funded by NZ Aid) released by the Ministry of Tourism and Transport (MOTT) in November 2006. Technical expertise was provided by Statistics New Zealand. Fiji's TSA follows very closely the TSA methodology adopted by Statistics New Zealand.

TSA 2002 will assist policy making at national level as it provides numerical information in adequate details on expenditures on tourism products, tourism supply, tourism employment etc. Business community that provides tourism products could have a better understanding of their contribution towards the national economy. This is important for them to enhance their contribution in the attempts to gain positive benefits from tourism to improve the living standards of people in the Fiji.

This project highlights how important tourism is for Fiji. The continued improvement of statistics relating to tourism will be highly beneficial eg migration statistics, hotel statistics, balance of payments etc. It would therefore be in the interest of the Government to develop a program of improvement across all of these areas of statistics contributing to the compilation of the TSA. This program should be on-going and be permanently based in the FIBOS as opposed to having it done as a project on an ad hoc basis as the case is now.

To all of you who have helped compile this publication, I extend to you my sincere gratitude.

Your comments and suggestions on this publication are welcome.



T I Bainimarama
Government Statistician

Message from the Consultant

The development of the 2002 Tourism Satellite Account (TSA) was prompted by recognition of the potential usefulness to Fiji of additional statistics on tourism, particularly at the macro-economic level. Fiji has a much larger tourism sector in relative terms than many other countries that also have TSA accounts.

The 2002 and 1995 TSA are both as consistent with the National Accounts as far as possible, and therefore comparable with each other. A comparison of both TSAs shows tourism's impact on the economy as being similar which indicates Fiji's tourism industry is quite resilient and recovered quickly from the downturn in 2000.

The Fiji TSA was first mooted at the Fiji Tourism forum in 1999, and was incorporated into the National Strategic Development Plan of 2003-05. The Bureau of Statistics organised economic surveys in 2002 in order that a TSA could be developed for that year.

In 2004, Statistics New Zealand was approached by the Fiji Bureau of Statistics to assist with the development of a TSA methodology and the incorporation of survey data into the TSA estimates. As lead consultant, I would like to acknowledge the technical contributions made by other Statistics New Zealand Staff to this project. Rodney Lewington and Alana Tipping for their initial planning and assessment work, Dr Tantri Tantirigama for his technical input and methodology development work, and Keith Sykes for coordinating the inputs of the various agencies involved. I would also like to thank various staff from the Bureau, particularly including Nilima Lal, Ronald Bali and Navilini Singh. This has been a time consuming project and due to the patience and effort from all concerned we have been able to bring it to a successful completion.

Chase O'Brien
Senior Statistician
Macro Economic Statistics Development
Statistics New Zealand

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The Officer in-charge of the TSA 2002, Ms Navilini Singh wishes to thank the following people without whose assistance the TSA 2002 project would not have been completed:

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Ratu Timoci Bainimarama
Ms. Nilima Lal
Mr Ronald Bali

Pacific Financial Technical Assistance Centre

Mr Micheal Andrews

In New Zealand –

The NZAID

New Zealand Statistics, in particular:

Mr Rodney Lewington
Ms Alana Tipping
Mr Keith Sykes
Dr Tantri Tantirigama
Mr Chase O'Brien

Cover photographs:
Courtesy of Fiji Visitors Bureau

Standards

Percentages

Percentages are, in a number of cases, calculated using data of greater precision than published. This could result in slight variations.

Rounding procedures

On occasion, figures are rounded to the nearest thousand or some other convenient unit. This may result in a total disagreeing slightly with the total of the individual items shown in tables. Where figures are rounded, the unit is, in general, expressed in words below the table headings, but where space does not allow this, the unit may be shown as (000) for thousands, etc.

Values

All values are shown in Fiji dollar denoted by \$, except where otherwise stated.

Source

All data are compiled by the Consultant and the, the Officer in-charge of the TSA 2002 at the Fiji Islands Bureau of Statistics, except where otherwise stated.

Symbols

The interpretation of the symbols used throughout this report is as follows:

- - nil, zero or less than thousand
- ... not applicable

Abbreviations

COE	Compensation of Employees
FIBOS	Fiji Islands Bureau of Statistics
FSIC	Fiji Standard Industrial Classification
FTE	Full-time Equivalent
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
HIES	Household Income and Expenditure Survey
IFE	Income from Employment
IO02	Input-output table for 2002
IVS	International Visitors Survey
MOTT	Ministry of Tourism and Transport
NZAID	New Zealand Aid
OECD	Organization of Economic Co-operation and Development
SNA93	System of National Accounts 1993
TPR	Tourism Product Ratio
TSA	Tourism Satellite Account
TSA 2002	Tourism Satellite Account 2002
VAT	Value Added Tax
WTO	World Tourism Organization

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1 Overview

1.1 Introduction

The role of tourism in Fiji's economy is of significant importance because of its ability to earn foreign exchange, generate employment opportunities and revenue to the government. The TSA compiled for Fiji, numerically measures the size and strength of tourism in the Fiji economy.

The first TSA report was published in November 2006 by the MOTT as a pilot project for 1995. It was seen as a breakthrough in placing the measurement of tourism as an economic phenomenon within the mainstream of Fiji's macroeconomic statistics. It adheres to the guidelines set out by the WTO and the Organisation for Economic Development and Co-operation (OECD) for the compilation of TSAs.

The 2002 year was selected for the next TSA as this corresponds with other FIBOS surveys and data collections such as the Household Income and Expenditure (HIES) and the Establishment Surveys. This allowed a high quality estimate to be produced for 2002. The 2002 TSA is comparable with the 1995 study and allows for the analysis of the influence of tourism on the Fijian economy over time.

The total tourism expenditure is grouped under two main headings:

1. expenditure by international visitors, and
2. expenditure by domestic tourists. The domestic tourist expenditure includes three sub-groups:
 - a. household tourism expenditure,
 - b. government travel expenditure, and
 - c. business travel expenditure.

These tourism expenditures are received by suppliers of tourism products who represent various industries e.g. hotels and other lodging places, recreational and cultural services etc. These receipts are in turn spent on purchase of inputs, which create several rounds of incomes among series of other input suppliers. In other words, there are several rounds of incomes generated because of initial expenditures made by tourists. These are known as backward linkages. The incomes generated because of the initial expenditures are taken into consideration as direct impacts. The incomes generated because of subsequent rounds of spending are taken into consideration as indirect and induced impacts. These indirect and induced effects are assessed with the help of an Input-Output table.

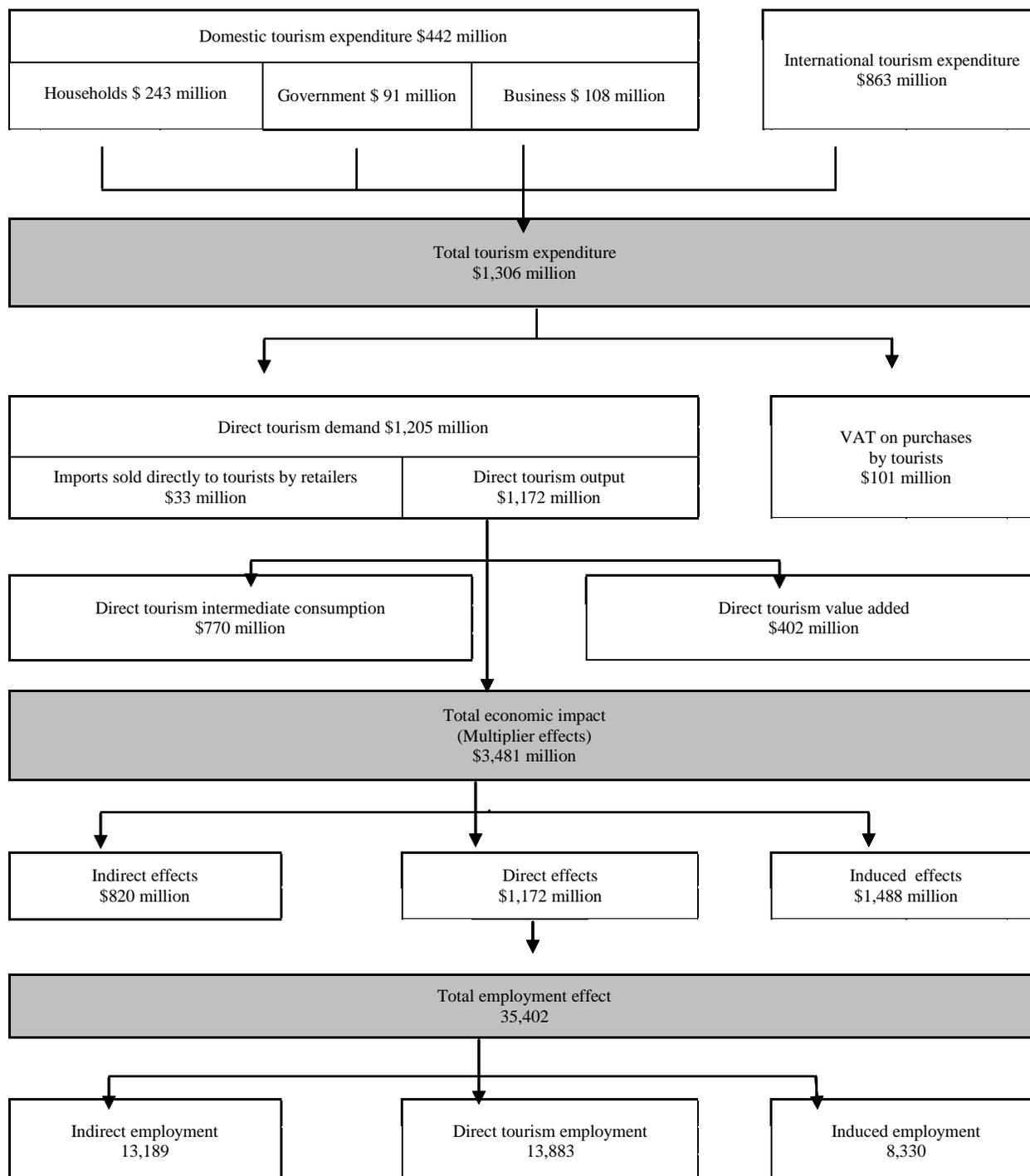
1.2 Highlights

- The total tourist expenditure in 2002 was \$1,306 million (refer Appendix A Table 1).
- Out of the total tourist expenditure, \$863 million (66 per cent) were spent by international visitors (foreign exchange earnings due to tourism in 2002) (refer Appendix A Table 1).
- Expenditures within the Fiji Islands by (refer Table 1):
 - households on tourism activities were \$243 million (19 per cent),
 - government travelers were \$91 million (7 per cent), and
 - business travelers were \$108 million (8 per cent).
- The consumption of tourism characteristic products as a percentage of total supply were (refer Appendix A Table 4):
 - accommodation services 96 per cent,
 - travel agency services 96 per cent,
 - air transport 95 per cent,
 - water transport 90 per cent,
 - food and beverage serving services 78 per cent,
 - sports, recreation and other activities 63 per cent and
 - road transport, motor vehicle hire/rental 58 per cent.
- The value of imported items directly purchased by tourists was \$33 million which represents an import leakage of 3.8 per cent of foreign exchange earnings due to tourism. The import leakage does not include intermediate and capital goods.
- The estimated government VAT revenue from tourism was \$101 million (refer Appendix A Table 1).
- The direct tourism value added was \$402 million (11.2 per cent of the total Gross Domestic Product (GDP) in 2002) (refer Appendix A Table 6).
- Number of salary and wage earners directly employed in tourism industries were 13,883 (direct employment) (refer Table 7). This represents 12.0 per cent of the total salary and wage earners in the Fiji Islands. The total employment (direct, indirect and induced) created by tourism was 35,402 (refer Chart 1).
- The total economic impact including direct, indirect and induced impacts due to tourism in 2002 was \$3,481 million.

1.3 Flows of Tourism Expenditure through the Fiji Economy

Chart 1

Flows of Tourism Expenditure through the Fiji Economy⁽¹⁾⁽²⁾
Year ended December 2002



(1) Totals may not add due to rounding

(2) Tourism expenditure is measured in purchaser prices. Other monetary aggregates are measured in producer prices

1.4 International visitor arrivals to Fiji

Visitors to Fiji from 1995 to 2002 have shown a steady growth except for the year 2000 (Refer Graph 1).

Drop in visitor arrivals in 2000 was approximately 28 per cent compared to 1999. Visitor arrivals dropped soon after the political unrest of May 2000.

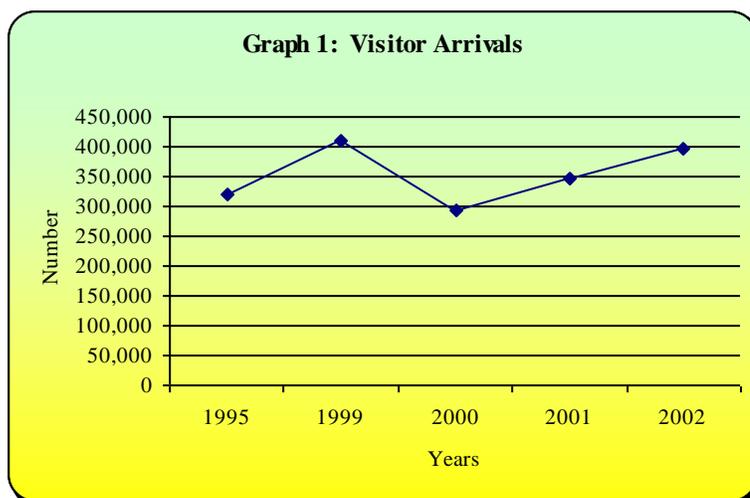


Table 1

**Number of Visitor arrivals by Country of Origin
(1995 and 1999 - 2002)**

	1995	1999	2000	2001	2002	Per cent Change (2002 compared to 1995)
Australia	78,503	118,272	76,883	98,213	123,606	57.45
New Zealand	59,019	72,156	49,470	66,472	68,293	15.71
USA	39,736	62,131	52,534	57,711	58,815	48.01
Canada	10,412	13,552	10,532	10,752	9,802	-5.86
United Kingdom	24,409	40,316	29,215	30,508	43,393	77.77
Continental Europe	30,968	28,371	22,506	20,917	21,654	-30.08
Japan	45,300	37,930	19,674	20,411	26,382	-41.76
Taiwan	789	784	610	776	922	16.86
Malaysia	334	319	277	304	316	-5.39
South Korea	5,475	1,489	3,386	8,143	6,992	27.71
Rest of Asia	4,773	6,694	5,863	8,263	11,128	133.14
Pacific Islands	17,461	26,090	21,534	23,608	24,051	37.74
Others	1,316	1,851	1,586	1,936	2,505	90.35
Total	318,495	409,955	294,070	348,014	397,859	24.92

Despite significant decreases in the number of tourist arrivals from Continental Europe and Japan, there has been an increase in the number of visitor arrivals of 25 per cent in 2002 when compared to 1995 due to significant increase in visitor numbers from Australia, United States of America, United Kingdom and the Rest of Asia (Refer Table 1).

1.5 2002 Results Compared with 1995 Results

The 2002 TSA results are broadly in line with the 1995 estimates.

The growth in direct value added from tourism was broadly in line with the overall GDP growth over the period (refer Table 2).

The relative contribution of tourism to the Fijian economy has changed little from 1995 to 2002, since there was definitely a downturn in tourism in 2000 due to the political crises. The 2002 figures indicate that by 2002 the Fijian tourism industry had recovered.

Employment relating to tourism grew slightly more than the national average from 1995 to 2002.

Table 2

2002 Results Compared with 1995 Results

	1995	2002	Per cent Change
<i>\$F million</i>			
Total Tourism Expenditure	979	1,306	33
Total Tourism Economic Impact	2,299	3,481	51
All industry GDP	2,525	3,603	43
Direct tourism value added	265	402	52
<i>Number of Total Salary and Wage Earners</i>			
Total Tourism Employment Effect	31,110	35,402	14
Total Economy Employment	107,380	115,902	8

Note: Totals may not add due to rounding off

2 Direct Impacts of Tourism

2.1 Direct tourism demand

The direct tourism demand is composed of four types of tourists:

1. international visitors
2. households tourists,]
3. government travelers, and] Domestic tourists
4. business travelers]

The demands by the four types of tourists are classified under nine products of which eight products are tourism-characteristic products and one is tourism-related product.

Tourism-characteristic products are:

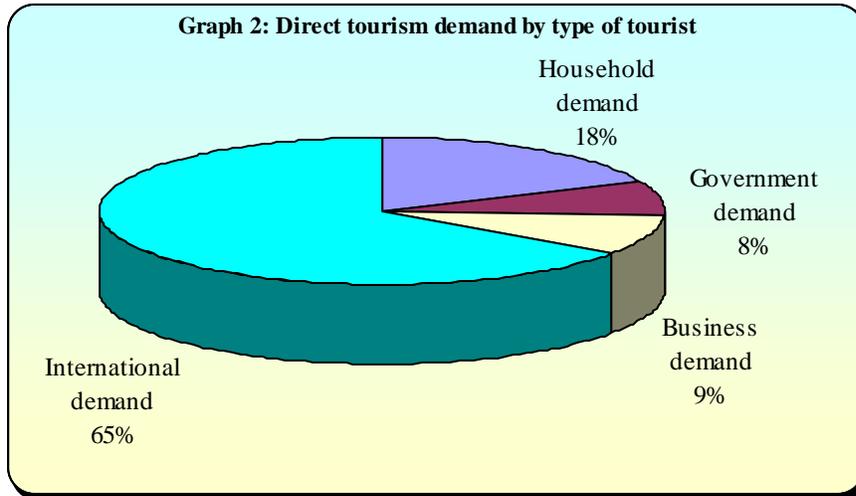
1. Accommodation services
2. Food and beverage serving services
3. Road transport
4. Motor vehicle hire/rental
5. Air transport
6. Water transport
7. Travel agency services
8. Sports, recreation and other activities

Tourism-related products is

1. Retail sales

(Refer to Appendix A Table 1 for more details. Detailed product descriptions are given in Appendix D.)

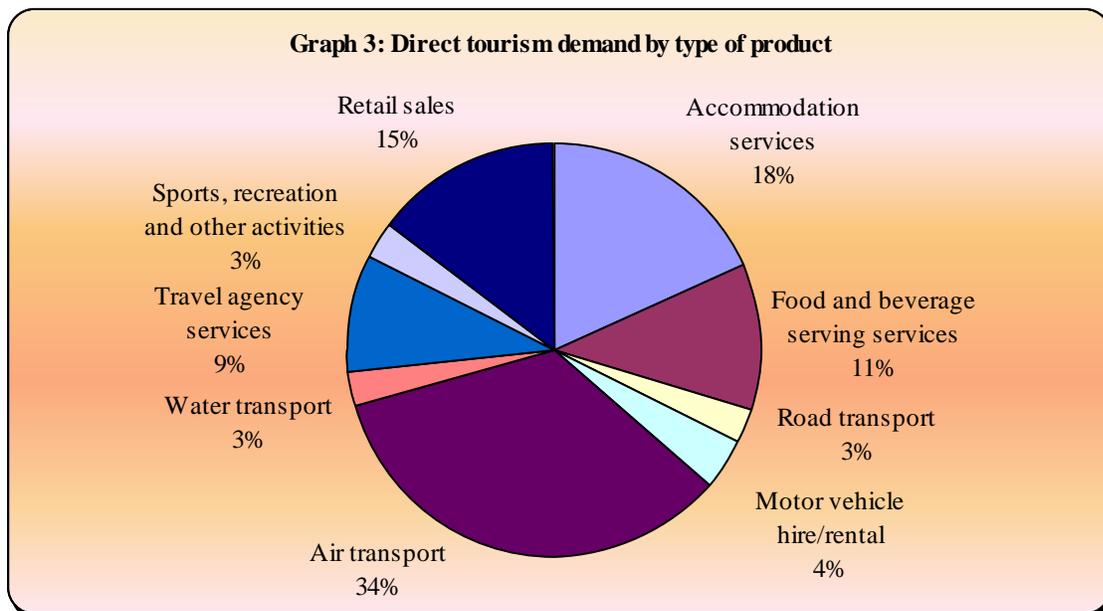
2.2 Tourism demand by type of tourist



The largest contributor to direct tourism demand was international visitors with \$785 million (65 per cent) followed by household demand with \$221 million (18 per cent), business demand with \$108 million (9 per cent) and Government demand with \$91 million (8 per cent).

2.3 Direct tourism demand by type of product

Most important products in terms of tourist demand were air transport and accommodation services. These two products alone accounted for approximately 52 per cent of total demand i.e. 34 per cent demand for air transport and 18 per cent for accommodation (Refer Graph 3).



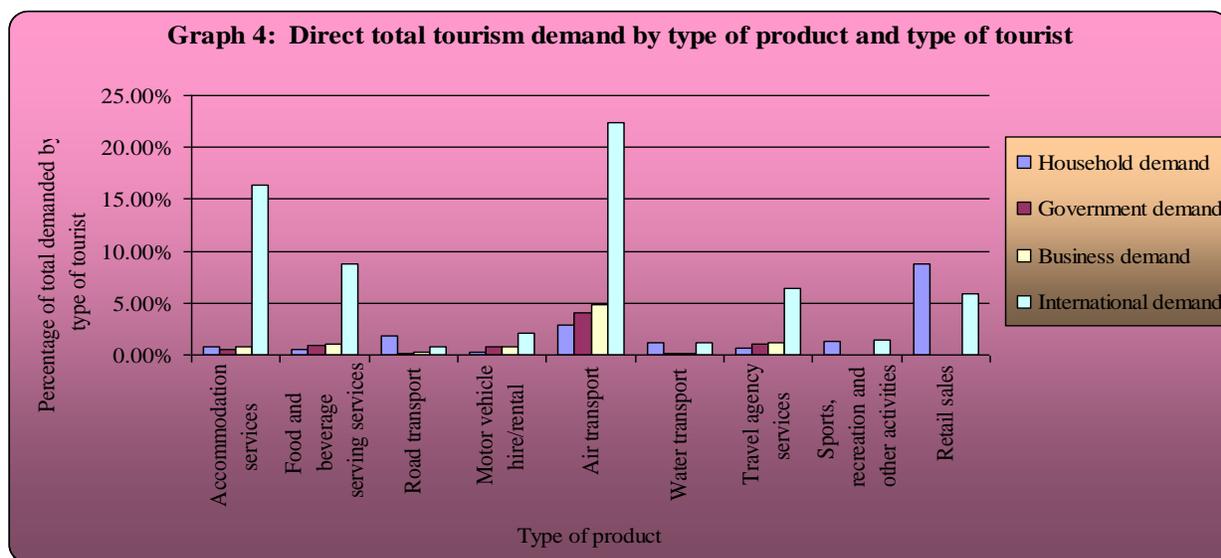
2.4 Direct tourism demand by type of product and type of tourist

2.4.1 Total tourism demand by type of product and type of tourist

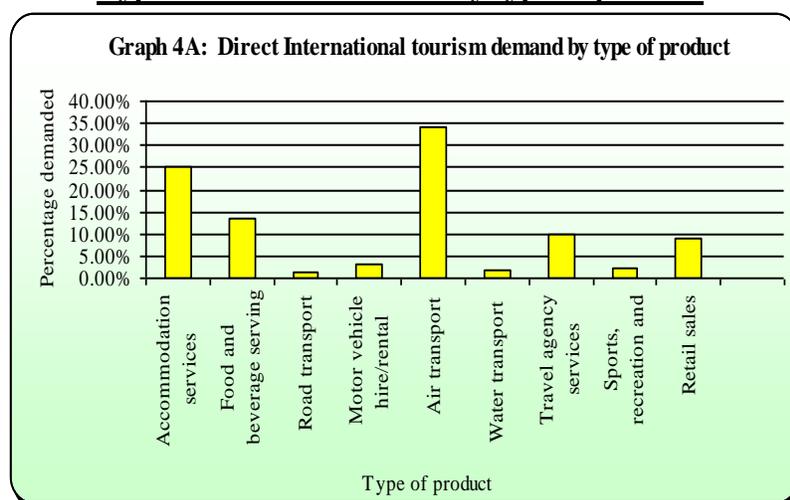
Air travel was the most highly used product. The highest users of air travel were international tourists followed by business tourists, then Government tourists and then household tourists. Household tourists also used land transport as an important mode of their domestic travel.

Demand for accommodation and food & beverages were mainly from international visitors. This implies that either the households, government and business tourists were mainly on day-visits or they stayed with friends and relatives.

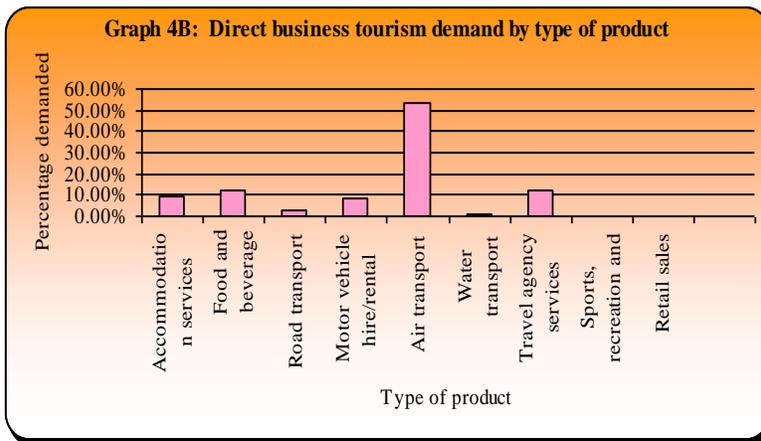
Demand for retail sales were mostly from household tourists followed by international tourists. Purchase of fuel for motor vehicles is a major contributor in the case of household tourists.



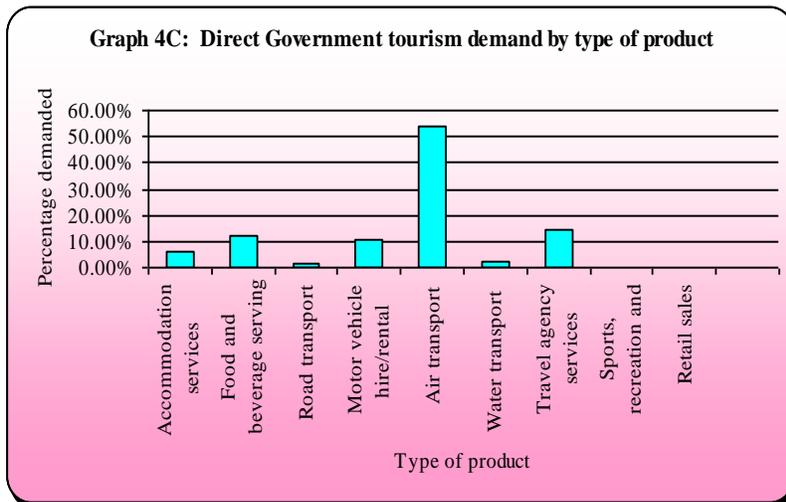
2.4.2 Types of tourism demand by type of product



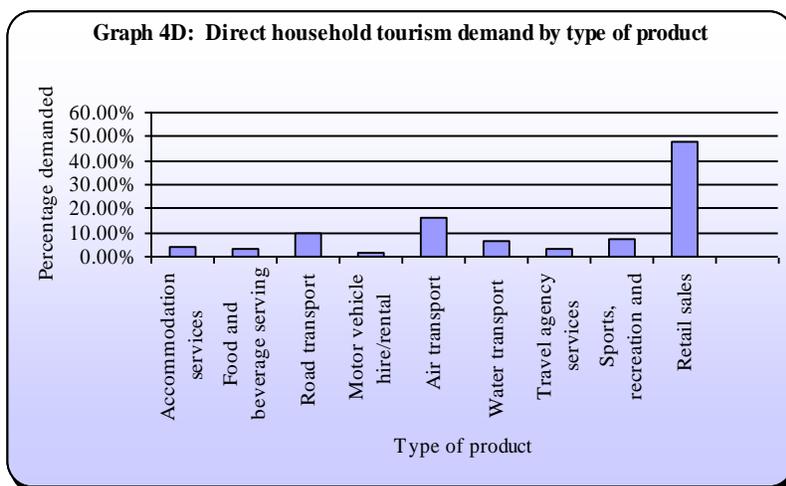
Of their total demand international tourists' highest demand was for air transport (34.3 per cent), followed by accommodation (25.1 per cent), food and beverage service (13.4 per cent), travel agency (9.9 per cent), retail sales (9.1 per cent), motor vehicle hire/rental (3.1 per cent), sports, recreation and other activities (2.1 per cent), water transport (1.8 per cent) and road transport (1.1 per cent).



Of their total demand business tourists' highest demand was for air transport (53.8 per cent), followed by travel agency (12.4 per cent), food and beverage service (12.3 per cent), accommodation (9.1 per cent), motor vehicle hire/rental (8.7 per cent), road transport (2.7 per cent) and water transport (0.9 per cent). Retail sales and sports, recreation and other activities had zero demand.



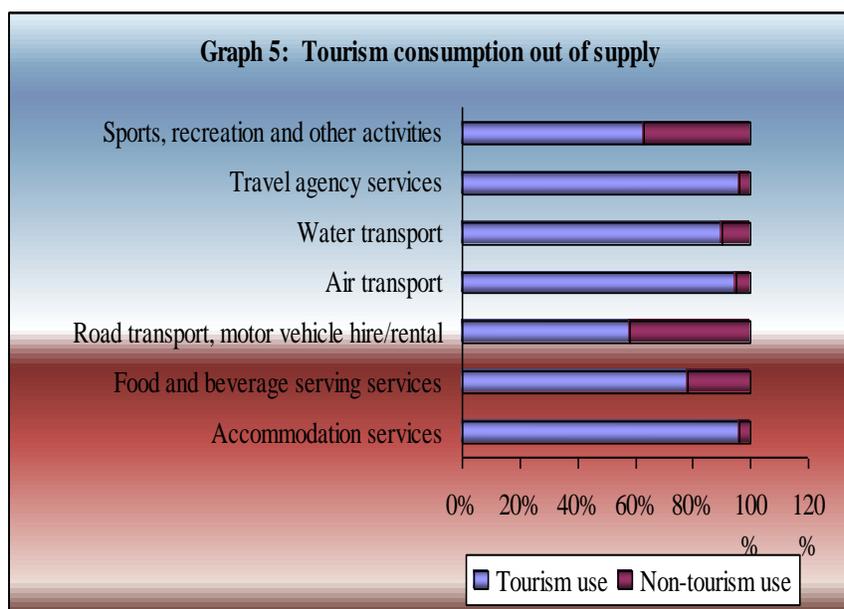
Of their total demand Government tourists' highest demand was for air transport (53.9 per cent), followed by travel agency (14.2 per cent), food and beverage service (11.8 per cent), motor vehicle hire/rental (10.4 per cent), accommodation (6.3 per cent), water transport (2.2 per cent), and road transport (1.1 per cent). Retail sales and sports, recreation and other activities had zero demand.



Of their total demand household tourists' highest demand was for retail sales (48.0 per cent), followed by air transport (16.0 per cent), road transport (10.1 per cent), sports, recreation and other activities (7.1 per cent), water transport (6.6 per cent), accommodation (4.0 per cent), travel agency (3.4 per cent), food and beverage service (3.2 per cent), and motor vehicle hire/rental (1.6 per cent).

2.5 Tourism demand and total supply

Tourism Product Ratio (TPR) provides an indication of the percentage use of products by tourists, out of the total supply of the products available for sale. Calculation of TPR was carried out by dividing the total demand by the total supply of each product. Calculated TPRs are given in Appendix A, Table 4.



The main products that had been consumed by tourists were: accommodation services and travel agency services (96 per cent) followed by air transport (95 per cent), water transport (90 per cent), Food and beverage serving services (78 per cent), sports, recreation and other activities (63 per cent) and road transport, motor vehicle hire/rental (58 per cent). The TPR shows how important a particular product is in terms of serving foreign and domestic tourists. In this

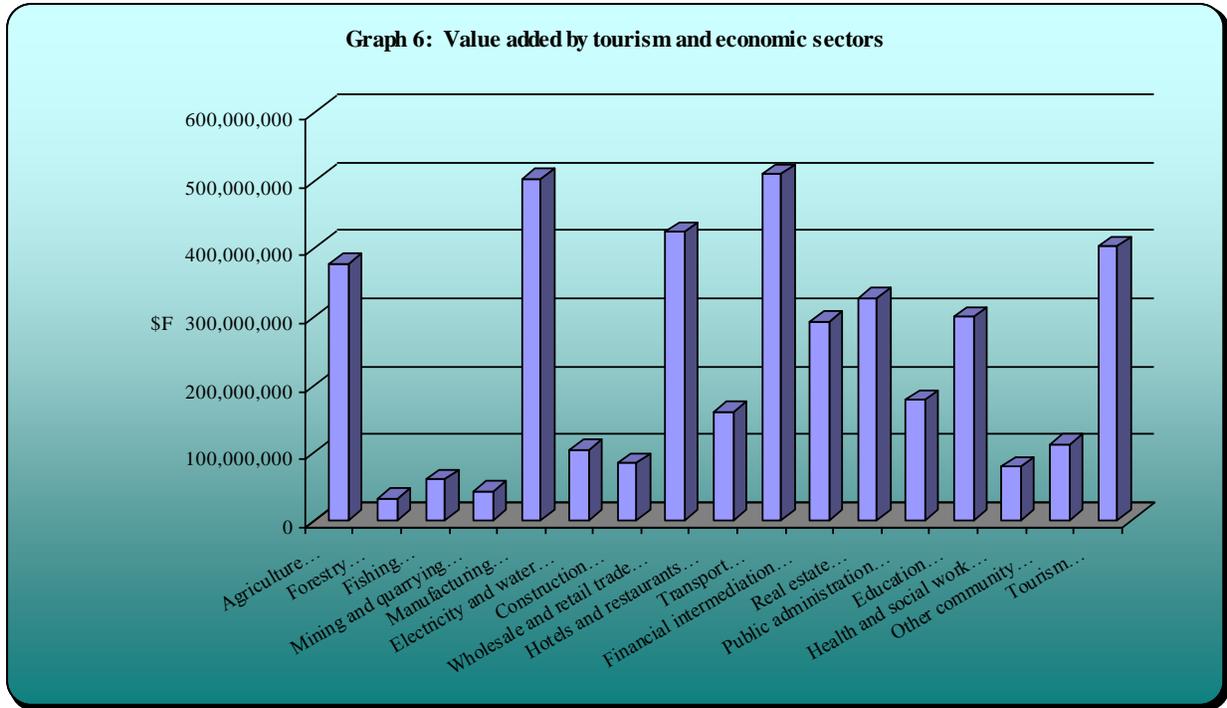
context 95 per cent of air transport services provided by Fiji air carriers were used by tourists whilst only 5 per cent were used by non-tourism eg for cargo transport purposes.

2.6 Direct tourism value-added and contribution to GDP

2.6.1 Industry contributions to total value added

Direct tourism value added is the contribution of industries involved in the supply of tourism products to the total GDP of Fiji. The estimated direct tourism value added was \$402 million, which was 11.2 per cent of all industry GDP. Refer Appendix A Table 6 for further details.

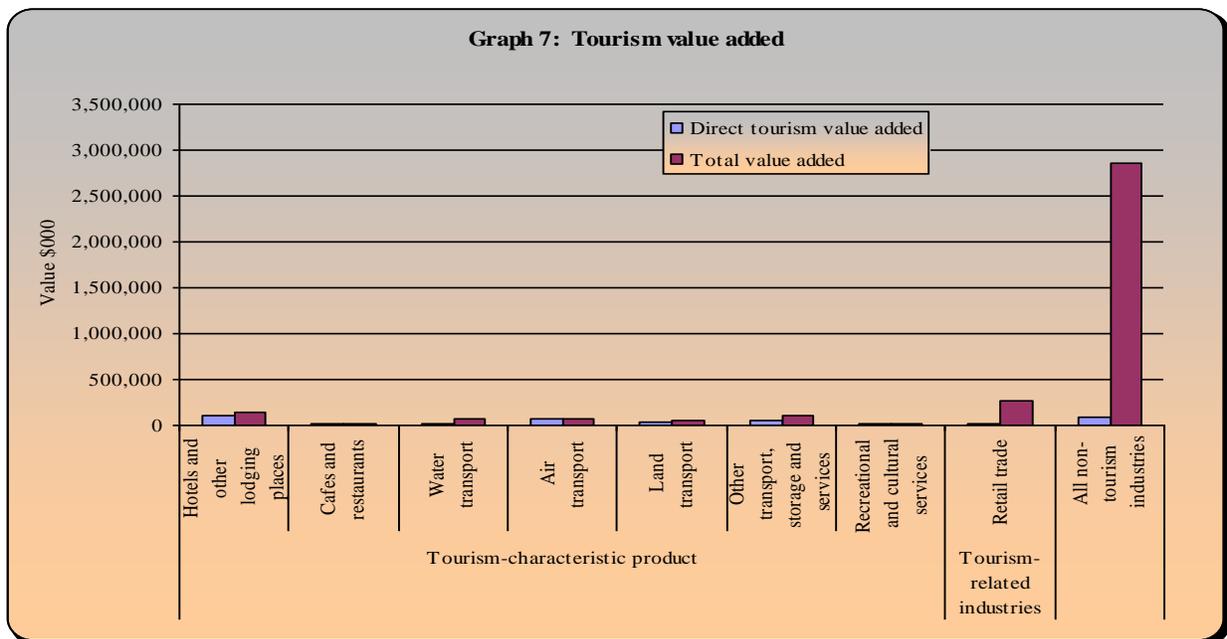
Graph 6 that follows shows industry contributions, including tourism, to the total VA.



2.6.2 Tourism value added

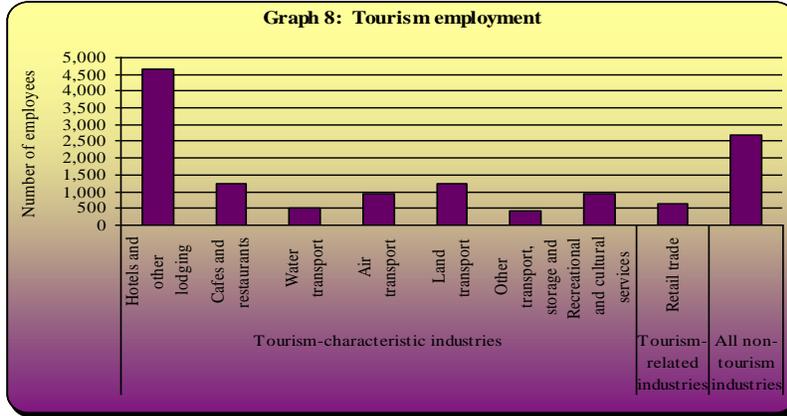
The highest contributors to tourism value added were hotels and other lodging places and air transport.

Graph 7 shows contribution of tourism value added to total value added by tourism-characteristic and related products.

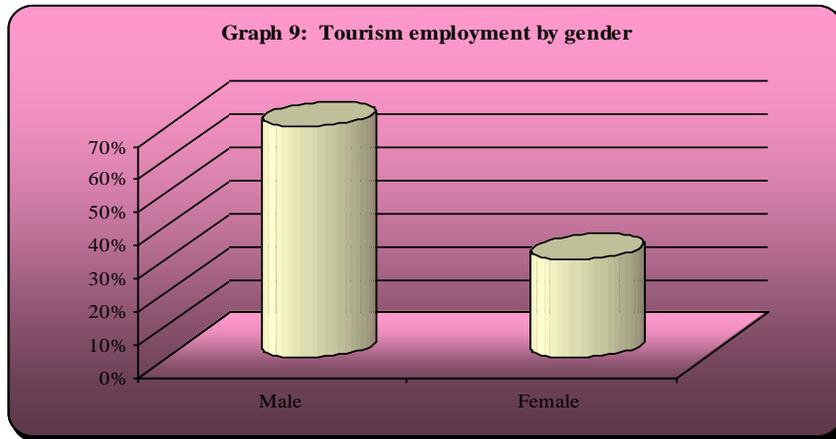


2.7 Direct employment in tourism

The employment in tourism is classified into salary and wage earners. Salary and wage earners are sub-divided into gender (refer to Appendix A Table 7). The total number of persons employed in tourism was 13,883, which, represents 12.0 per cent of the total employment of salary and wage earners in Fiji in 2002.

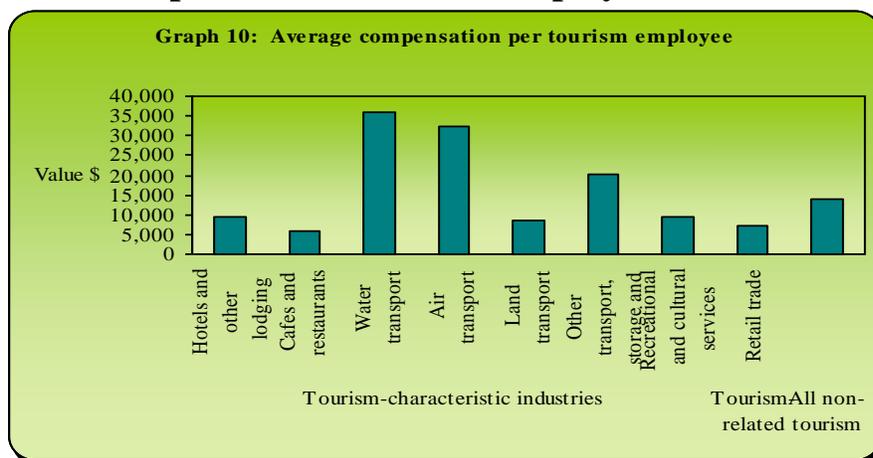


On average, majority of tourism employees (66 per cent) were wage earners. The most important industry in terms of direct employment in tourism was hotels and other lodging places. Cafes and restaurants and land transport are other industries that are estimated to have more than 1,000 employees directly related to tourism.



70 per cent of tourism employment was represented by males with dominance being in the various transport industries. 30 per cent of tourism employees were therefore female. Refer Appendix A Table 7.

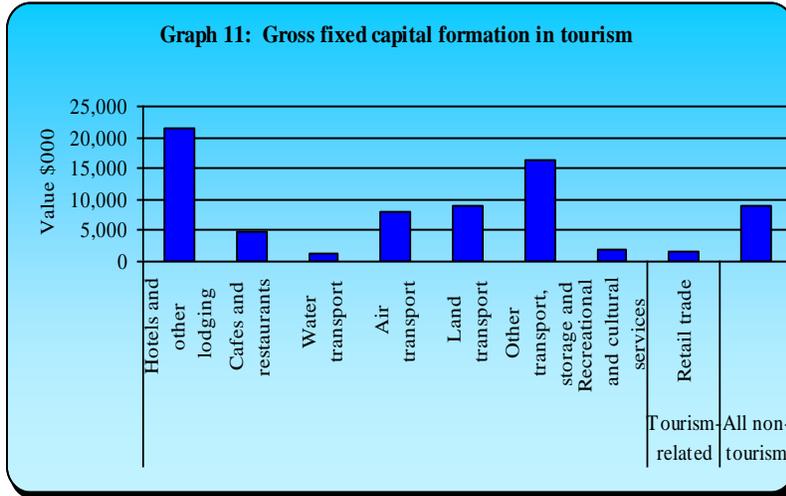
2.8 Compensation of tourism employees



This is an indication of the income received by households by supplying labor inputs to the operation of tourism industries. It also enables a comparison of industries based on the average compensation per tourism employee to be made. Average compensation per tourism employee

indicates the average wage of a particular industry. The total compensation of tourism employees was \$181 million which was 11.7 per cent of the national total. In other words the persons employed in the tourism sector had been able to receive approximately 11.7 per cent total labor income of the country. There are differences in terms of average compensation, or the average wage among different industries. Further details can be obtained from Appendix A Table 7.

2.9 Gross fixed capital formation



The hotels and other lodging places recorded the highest gross fixed capital formation with \$21 million worth of new additions which indicates a significant effort by the industry to expand accommodation capacity in 2002 to accommodate the increasing number of visitor arrivals (refer Appendix A Table 8).

2.10 Import Leakage

Import leakage refers to the amount spent on imports, for the supply of tourism products, as a percentage of foreign exchange revenue earned due to tourism. The three types of imports required are:

- final goods and services, or directly consumable items such as foreign liquor, cigarettes, film rolls,
- intermediate inputs or raw materials such as flour, meat, fuel, and
- capital goods and services such as machinery and equipment, buses and coaches.

Due to lack of comprehensive data, only the amount spent on imported final goods and services was estimated. This gives an indication of the amount spent by both domestic and international tourists to purchase imported items from retailers.

The total import of goods and services directly purchased by tourists in 2002 was \$33 million. This is approximately 3.8 per cent of the total foreign exchange earnings due to tourism in 2002. In other words the economy had lost 3.8 per cent of foreign exchange earnings due to the import of final goods and services for tourists' consumption. Actual import leakage could be much higher if intermediate inputs or raw materials and capital goods and services were also taken into consideration.

Compared to 1995 when the leakage was approximately 20 per cent of the tourism earnings, one would conclude that the leakage by 2002 had dropped considerably. This however is not correct since the 1995 estimate is considered high. The IVS report for 2002 says that spending by tourists

on 'shopping' was only \$72m. This is basically the only category where retailers are selling to tourists except possible for some miscellaneous expenses such as petrol. The actual purchases from retailers would be less than this (and also VAT has to be taken off). Also much of the spending is on goods produced locally such as handcrafts, not imports. The actual spending from retailers on imported goods will be much, much lower than the IVS figure of \$72m. An estimate of around \$20m is not unreasonable.

3 Multiplier analysis

3.1 Introduction

TSA is able to measure direct effects, i.e. effects of initial spending by tourists. Industries involved in the supply of tourism products have to purchase inputs. Suppliers of these inputs have to spend part of their income to purchase further inputs and so on. Therefore, the initial spending leads to several rounds of spending which are called backward linkages or indirect impacts. Further, employees in tourism spend part of their income on purchase of goods and services for their own use. A part of income received by suppliers of such goods and services is paid to another set of employees and they spend part of their income on further purchases for their use, and so on. In other words, the initial income directly received by employees in tourism creates several rounds of income/spending. These are known as induced effects.

The indirect and induced effects are called multiplier effects since they cover all effects initiated by the first round of spending by tourists. Since TSA focuses only on direct effects, further analysis is required to investigate multiplier effects. The most comprehensive method of investigating multiplier effects is to use the Input-Output table technique. The 1995 multipliers were used in the 2002 TSA since these are the only ones available at present. Multipliers generally do not move much over short time periods and have been assumed to be valid for the 2002 estimates.

It should be noted that the number of industries identified in the 2002 supply and use tables are different from the number of industries used in the TSA: the 2002 supply and use tables comprised 35 industries out of which only 5 industries are used in the TSA. These five industries, namely, hotels and restaurants, air transport, water transport, road transport and tourist goods industries cover all of the tourism-characteristic and tourism-related products.

3.1.1 Type I and Type II multipliers

Type I multiplier takes into account the direct and indirect effects. Type II multiplier is able to capture, in addition to direct and indirect effects, the effects of incomes received by employees in the tourism industries which are known as induced effects

3.2 Multiplier effects of tourist spending in the Fiji Islands

3.2.1 Output multipliers

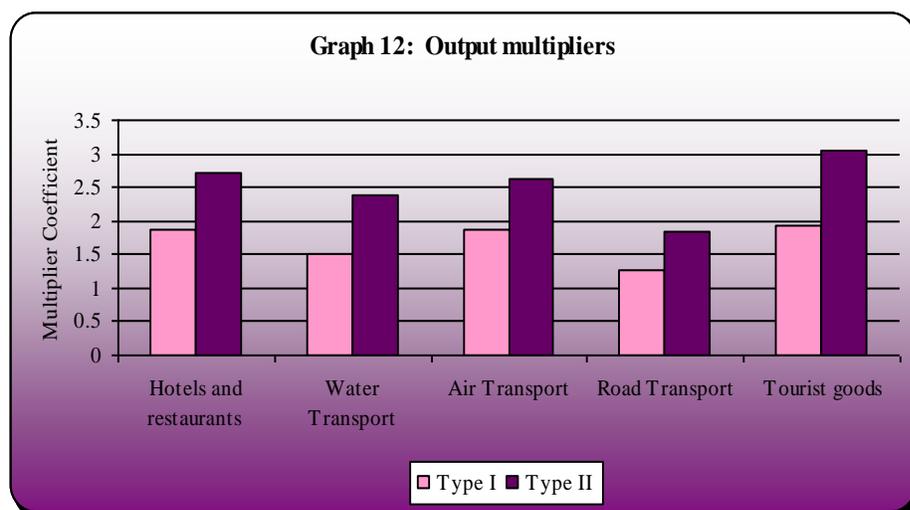
Table 3

Output multipliers

		Hotels and restaurants	Water Transport	Air Transport	Road Transport	Tourist goods	Total Tourism sector
Output multipliers	Type I	1.87	1.50	1.88	1.26	1.94	1.70
	Type II	2.73	2.37	2.61	1.84	3.05	2.97

All the tourism characteristic industries have low Type I multiplier effects, but high Type II multiplier effects. This is because type I multipliers take into consideration direct and indirect effects whilst type I plus induced effects give type II multipliers.

The Transport industries generally have lower multipliers than Accommodation and Tourist goods industry. This may be due to the high reliance on imported fuel of these industries.



Tourism output multiplier Type I applied to total tourism industries was 1.7. This means that each additional one dollar spending on tourism products created \$1.70 worth of output in all industries. Based on the estimated direct tourism output, the output that had been created due to direct and indirect effects multiplier Type I

was \$1,992 million. If induced effects multiplier Type II is also taken into consideration, then \$3,481 million worth of output was created.

Note: The multiplier based estimates in Chart 1 were calculated using the 'total Tourism sector' multiplier. While the five industry multipliers may be of interest, they were not used directly in Chart 1 estimates.

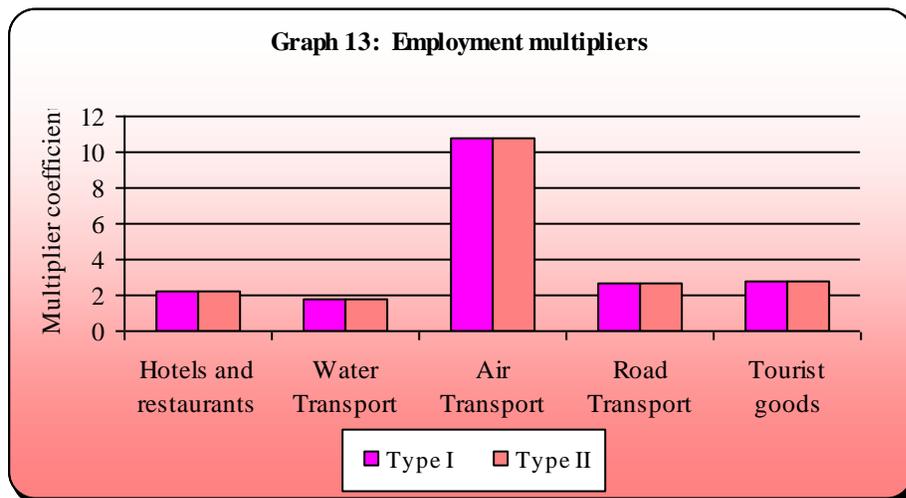
3.2.2 Employment effects

Table 4

Employment multipliers

		Hotels and restaurants	Water Transport	Air Transport	Road Transport	Tourist goods	Total Tourism sector
Employment multipliers	Type I	1.60	1.30	6.47	1.61	1.49	1.95
	Type II	2.17	1.83	10.74	2.62	2.82	2.55

Tourism employment multiplier Type I applied to total tourism industries was 1.95. This means that one additional person employed in the tourism sector led to the creation of 1.95 worth of employment in Fiji. Based on the estimated direct tourism employment, the employment that had been created due to direct and indirect effects multiplier Type I was 13,883. If induced effects multiplier Type II is also taken into consideration, then 35,402 employments were created.



Tourism is a labor intensive industry which is the reason for it having high employment multipliers. Air transport industry had shown very high of both Type I and Type II multipliers. For example one additional person employed in the air transport industry could create a total of 6.47 employment

opportunities as per multiplier Type I and 10.74 employment opportunities as per multiplier Type II.

3.3.3 Income effects

Table 5

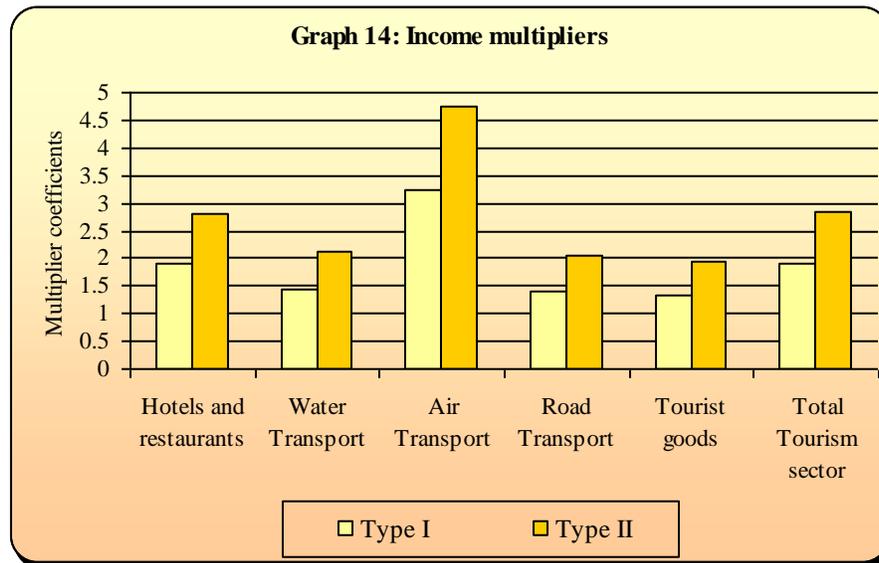
Income multipliers

		Hotels & restaurants	Water Transport	Air Transport	Road Transport	Tourist goods	Total Tourism sector
Income multiplier	Type I	1.90	1.43	3.22	1.40	1.33	1.89
	Type II	2.80	2.11	4.75	2.06	1.96	2.84

Tourism income multiplier Type I applied to total tourism industries was 1.89. This means that an income of \$1 from employment led to the creation of \$1.89 of income throughout the economy.

Based on the estimated direct tourism income, the income that had been created due to direct and indirect effects multiplier Type I was \$323 million. If induced effects multiplier Type II is also taken into consideration, then \$486 million income was created.

As in the case of employment multipliers, the highest income multipliers were found in the air transport industry which showed 3.22 Type I and 4.75 Type II income multipliers.



Appendix A: Detailed Results

Refer Appendix C for Methodology used to obtain the Detailed Results given in Tables 1 to 8 of this Appendix.

Table 1

Tourism Expenditure

By type of product and type of tourist⁽¹⁾⁽²⁾
Year ended December 2002

Type of Tourist Type of Product	Domestic demand			International demand	Total demand
	Household demand	Government demand	Business demand		
	\$000				
Tourism-characteristic products					
Accommodation services	8,924	5,764	9,867	196,910	221,465
Food and beverage serving services	7,057	10,811	13,353	104,936	136,157
Road transport	22,205	1,045	2,874	8,961	35,085
Motor vehicle hire/rental	3,519	9,513	9,426	24,631	47,089
Air transport	35,247	49,229	58,235	269,565	412,276
Water transport	14,498	2,000	1,000	13,911	31,409
Travel agency services	7,500	13,000	13,457	77,699	111,656
Sports, recreation and other activities	15,728	0	0	16,596	32,324
Total tourism-characteristic products	114,678	91,362	108,212	713,209	1,027,461
Tourism-related products: retail sales	105,829	0	0	71,700	177,529
Total tourism demand by type of tourist excluding VAT	220,507	91,362	108,212	784,909	1,204,990
VAT paid on purchases by tourists	22,051	0	0	78,491	100,542
Total tourism expenditure by type of tourist	242,558	91,362	108,212	863,400	1,305,532

(1) Individual figures may not sum to stated totals due to rounding.

(2) All values are in producer prices.

Table 2

Fiji Islands System of National Accounts Production Accounts

By industry⁽¹⁾⁽²⁾

Year ended December 2002

	Tourism-characteristics industries							Tourism-related industries		
	Hotels and other lodging places	Cafes and restaurants	Water transport ⁽³⁾	Air transport	Land transport	Other transport, storage and services aligned to transport	Recreational and cultural services	Retail trade	All non-tourism industries ⁽⁴⁾	Total
	\$000									
All Industry GDP	...	...	...	...	...	...	...	...	...	3,602,795
Contribution to GDP from production	138,535	21,438	69,128	67,805	47,998	109,310	19,297	264,266	2,865,019	3,602,795
<i>Equivalent to: Total output</i>	304,805	76,086	87,870	432,066	142,432	249,887	51,615	561,441	5,939,456	7,845,658
<i>Less: Intermediate consumption</i>	166,270	54,648	18,742	364,261	94,434	140,577	32,318	297,175	3,074,437	4,242,863
Components of GDP										
Compensation of employees	62,483	10,318	31,490	31,795	25,129	46,442	10,586	86,782	1,241,373	1,546,400
Consumption of fixed capital	22,885	2,245	3,986	15,772	12,913	10,421	4,014	30,401	318,643	419,279
Gross operating surplus	53,166	8,875	33,651	20,238	9,956	52,447	4,697	147,083	1,305,003	1,637,116

(1) Individual figures may not sum to stated totals due to rounding.

(2) All values are in producer prices.

(3) Includes General Government Transport

(3) Includes informal land transport

Table 3

Sales Analysis
By type of product and industry⁽¹⁾⁽²⁾
 Year ended December 2002

Product	Tourism-characteristic industries						
	Hotels and other lodging places ⁽³⁾	Cafes and restaurants	Water transport	Air transport	Land transport	Other transport, storage and services aligned to transport	Recreational and cultural services
	\$000						
Sales of tourism-characteristic and tourism-related products							
Accommodation services	230,674	19	-	-	-	-	-
Food and beverage serving services	100,693	74,458	-	-	-	-	-
Road transport, motor vehicle hire/rental	-	-	-	-	141,431	-	-
Air transport	-	-	-	431,849	-	-	-
Water transport	-	-	34,899	-	-	-	-
Travel agency services	4,454	88	-	-	-	111,656	-
Sports, recreation and other activities	-	-	-	-	-	-	51,615
Total tourism-characteristic and tourism-related products	335,821	74,565	34,899	431,849	141,431	111,656	51,615
Sales of domestically produced non-tourism related products	64,179	1,521	52,971	217	2,001	138,231	-
Total industry output⁽³⁾	400,000	76,086	87,870	432,066	143,432	249,887	51,615

(1) Individual figures may not sum to stated totals due to rounding.

(2) All values are in producer prices.

Table 4

Derivation of Tourism Product Ratios⁽¹⁾⁽²⁾
Year ended December 2002

Product	Total demand (from Appendix A Table 1)	Total supply (from Appendix A Table 3)	Tourism product ratio⁽³⁾
	\$(000)		
Tourism-characteristic products			
Accommodation services	221,465	230,693	0.96
Food and beverage serving services	136,157	175,151	0.78
Road transport, motor vehicle hire/rental	82,174	141,431	0.58
Air transport	412,276	431,849	0.95
Water transport	31,409	34,899	0.90
Travel agency services	111,656	116,198	0.96
Sports, recreation and other activities	32,324	51,615	0.63
Total tourism-characteristic products	1,027,461	1,181,836	

(1) Individual figures may not sum to stated totals due to rounding.

(2) All values are in producer prices.

(3) Obtained by dividing Total Supply by Total Demand

Table 5

Derivation of Tourism Industry Ratios

Year ended December 2002

Product	Tourism-characteristic industries						
	Hotels and other lodging places	Cafes and restaurants	Water transport	Air transport	Land transport	Other transport, storage and services aligned to Transport	Recreational and cultural services
	\$000						
Tourism-characteristic and tourism-related products							
Accommodation services	221,447	18	-	-	-	-	-
Food and beverage serving services	78,276	57,881	-	-	-	-	-
Road transport, motor vehicle hire/rental	-	-	-	-	82,174	-	-
Air transport	-	-	-	412,276	-	-	-
Water transport	-	-	31,409	-	-	-	-
Travel agency services	4,280	85	-	-	-	107,292	-
Sports, recreation and other activities	-	-	-	-	-	-	32,324
Total tourism-characteristic and tourism-related products purchased by tourists	304,003	57,984	31,409	412,276	82,174	107,292	32,324
Total industry output	400,000	76,086	87,870	432,066	143,432	249,887	51,615
Tourism industry ratio⁽¹⁾	0.76	0.76	0.36	0.95	0.57	0.43	0.63

(1) Obtained by dividing total tourism-characteristic products purchased by tourists by total industry output

Table 6

Derivation of Tourism's Direct Value Added⁽¹⁾⁽²⁾

Year ended December 2002

	Tourism-characteristics industries							Tourism-related industries	All non-tourism industries	Total
	Hotels and other lodging places	Cafes and restaurants	Water transport	Air transport	Land transport	Other transport, storage and services aligned to transport	Recreational and cultural services	Retail trade		
	\$000									
Tourism industry ratio⁽³⁾	0.76	0.76	0.36	0.95	0.57	0.43	0.63	0.07	0.03	...
Direct tourism value added⁽⁴⁾	105,287	16,338	24,710	64,699	27,498	46,933	12,085	18,499	85,951	402,000
<i>Equivalent to</i> : Tourism output	231,654	57,984	31,409	412,276	81,601	107,292	32,324	39,301	178,184	1,172,024
<i>Less</i> : tourism intermediate consumption	126,367	41,646	6,699	347,577	54,103	60,358	20,239	20,802	92,233	770,025
Total industry GDP	...	...	...	...	...	...	...	...	...	3,602,795
Contribution to GDP from production as a percentage of total industry GDP	...	...	...	...	...	...	...	...	...	11.2 per cent
Components of direct tourism value added										
Tourism compensation of employees	47,487	7,864	11,256	30,339	14,397	19,940	6,630	6,075	37,241	181,229
Tourism consumption of fixed capital	17,393	1,711	1,425	15,049	7,398	4,474	2,514	2,128	9,559	61,651
Tourism gross operating surplus	40,407	6,764	12,028	19,311	5,704	22,519	2,941	10,296	39,150	159,119

(1) Individual figures may not sum to stated totals due to rounding.

(2) All values are in producer prices.

(3) Tourism industry ratios are sourced from Appendix A Table 5

(4) Calculated by multiplying the tourism industry ratios with the total value added given in Appendix A Table 2

Table 7

Direct Tourism Employment and Compensation of Employees

By industry⁽¹⁾
Year ended December 2002

	Tourism-characteristic industries							Tourism-related industry	All non-tourism industries	Total
	Hotels and other lodging places	Cafes and restaurants	Water transport	Air transport	Land transport	Other transport, storage and services aligned to transport	Recreational and cultural services	Retail trade		
Total employment	Number									
Salary earners										
Male	806	196	642	381	904	882	566	1,209	26,298	31,884
Female	414	98	131	76	185	185	283	621	12,316	14,309
Total	1,220	294	773	457	1,089	1,067	849	1,829	38,614	46,193
Wage earners										
Male	3,284	794	740	440	1,041	1,009	193	4,904	35,477	47,882
Female	1,696	537	150	86	215	215	97	2,533	16,300	21,827
Total	4,979	1,331	891	526	1,256	1,223	290	7,437	51,777	69,709
Total employment in Fiji	6,199	1,625	1,664	983	2,344	2,291	1,139	9,266	90,391	115,902
Tourism Industry Ratio⁽²⁾	0.76	0.76	0.36	0.95	0.57	0.43	0.63	0.07	0.03	
Tourism employment⁽³⁾										
Salary earners										
Male	612	149	230	364	518	379	355	85	789	3,480
Female	314	75	47	73	106	79	177	43	369	1,284
Total	927	224	276	436	624	458	532	128	1,158	4,764
Wage earners										
Male	2,496	605	265	420	596	433	121	343	1,064	6,343
Female	1,289	409	54	82	123	92	60	177	489	2,775
Total	3,784	1,014	318	502	719	525	181	521	1,553	9,118
Total tourism employment	4,711	1,238	595	938	1,343	983	713	649	2,712	13,883
Tourism employment as a percentage of total employment	...	...	...	...	...	...	...	...	...	12.0 per cent
	\$000									
Tourism compensation of employees⁽⁴⁾	47,487	7,864	11,256	30,339	14,397	19,940	6,630	6,075	37,241	181,229
Average compensation per tourism employee⁽⁵⁾	10,080	6,350	18,926	32,339	10,718	20,276	9,294	9,366	13,733	13,054

(1) Tourism industry ratio row is sourced from Appendix A Table 5

(2) Calculated by multiplying the tourism industry ratio by total employment.

(3) Tourism compensation of employees row is sourced from Appendix A Table 6.

(4) Calculated by dividing the tourism compensation of employees by tourism employees

Table 8

Gross Fixed Capital Formation

By industry⁽¹⁾
Year ended December 2002

	Tourism-characteristic industries							Tourism-related industry	All non-tourism industries	Total
	Hotels and other lodging places	Cafes and restaurants	Water transport	Air transport	Land transport	Other transport, storage and services aligned to transport	Recreational and cultural services	Retail trade		
Total capital Formation	\$(000)									
Land Development and Improvement	733	134	596	0	22	6,342	19	169	2,919	10,935
Buildings	13,948	2,400	245	0	383	9,813	978	8,350	45,270	81,386
Plant & machinery	5,796	1,093	563	71	2,508	1,317	761	2,271	150,778	165,158
Furniture, Fixtures and Office Equipment	3,999	2,066	578	1,732	1,322	5,123	363	4,902	35,409	55,494
Transport Vehicles and Related Equipment	1,630	350	1,609	6,662	11,399	12,876	674	5,048	40,047	80,296
Other Capital Formation	2,168	214	0	0	5	2,770	420	1,542	26,405	33,525
Total capital Formation	28,274	6,256	3,591	8,465	15,639	38,242	3,215	22,282	300,828	426,793
Tourism industry ratio⁽²⁾	0.76	0.76	0.36	0.95	0.57	0.43	0.63	0.07	0.03	
Tourism capital formation⁽³⁾										
Tourism Land Development and Improvement	557	102	213	0	13	2,723	12	12	88	3,720
Tourism Buildings	10,600	1,829	87	0	219	4,213	612	584	1,358	19,504
Tourism Plant & machinery	4,405	833	201	68	1,437	565	477	159	4,523	12,668
Tourism Furniture, Fixtures and Office Equipment	3,039	1,575	207	1,653	757	2,200	227	343	1,062	11,062
Tourism Transport Vehicles and Related Equipment	1,239	267	575	6,357	6,531	5,529	422	353	1,201	22,474
Tourism Other Capital Formation	1,648	163	0	0	3	1,189	263	108	792	4,166
Total tourism gross fixed capital formation	21,488	4,768	1,284	8,078	8,960	16,419	2,014	1,560	9,025	73,595

(1) Individual figures may not sum to stated totals due to rounding.

(2) Tourism industry ratio row is sourced from Appendix A Table 5

(3) Calculated by multiplying the tourism industry ratio with "capital formation by type" ie to obtain the tourism land development and improvement, the tourism industry ratio is multiplied by the total land development and improvement eg $733 * 0.76 = 557$

Appendix B: Conceptual Framework

1 Definitions

Tourism Satellite Account 2002 (TSA 2002) has been based on the methodology produced by the World Tourism Organisation (WTO) in its publication *Tourism Satellite Account (TSA) – Recommended Methodological Framework*, and approved by the United Nations Statistical Commission. Reference has also been made to the methodological publications of the Organisation for Economic Co-operation and Development (OECD). These organisations have worked alongside each other to produce guidelines for the completion of TSAs. While they differ slightly in their recommended treatment of some conceptual issues, they generally take a similar approach, based upon concepts in the international standard *System of National Accounts 1993* (SNA93). Definitions used have been based on the recommendations of the WTO, with some modification for Fiji purposes.

1.1 Tourist

A tourist is any person traveling to a place other than their usual environment for less than 12 months and whose main purpose is other than the exercise of an activity remunerated from within the place visited.

It should be noted that not all travelers (persons moving from one place to another) are tourists. They must also be traveling to places outside their usual environment (defined below) for a limited time. The 12-month time limit is analogous with the SNA93 definition that a person staying in a country for longer than 12 months is a resident. A place becomes part of a tourist's usual environment after the tourist has spent more than 12 months there.

The following types of persons are not considered tourists:

- persons such as travelling salespersons for whom travel is an intrinsic part of their job
- persons who travel for the purpose of being admitted to, or detained in, a residential facility, such as a hospital, prison or long-stay care
- persons travelling as part of a shift to a new permanent location
- persons undertaking military duties
- persons travelling between two parts of their usual environment.

Fiji's TSA covers only tourists who travel to or within the Fiji Islands. These are classified as either international or domestic tourists.

1.2 International tourist

An international tourist is a person who travels to a country other than that in which they have their usual residence, and outside their usual environment. While travelling, they do not stay in any one place for more than 12 months.

For the purposes of a TSA, international tourists are made up exclusively of inbound travellers (non-residents travelling in the Fiji Islands). Although some countries treat

international students staying less than 12 months as tourists, Fiji's TSA did not take that segment into consideration as the number was considered to be insignificant.

1.3 Domestic tourist

A domestic tourist is a Fiji resident who travels outside their usual environment within the Fiji Islands. While travelling, they do not stay in any one place for more than 12 months. Domestic tourists are further broken down according to household tourists, government or business travellers.

- A **household tourist** is one whose purpose of visiting is other than the carrying out of a business activity.
- A **government traveller** is an employee of a central or local government sector enterprise whose purpose of travel is the carrying out of an official activity and whose expenses are met either in full or in part by the government.
- A **business traveller** is an employee of a private sector enterprise whose purpose of travel is the carrying out of a business activity and whose expenses are met either in full or in part by their employer.

1.4 Usual environment

Usual environment is the place or places a person occupies within their regular routine of life (excepting places visited for leisure or recreational activities only).

It is the concept of 'usual environment' that defines a tourist. Tourists must be travelling outside their usual environment for their expenditure to be considered part of tourism demand.

A particular destination will benefit from the goods and services purchased by tourists travelling outside of their usual environment, by the amount spent by the tourist at that location, excluding imports. The important link between usual environment and tourism is that tourists, in purchasing goods and services outside their usual environment, have a positive economic impact on that destination. This benefit would not have occurred without tourism. This is the basis of tourism expenditure and is the reason a TSA excludes expenditure by outbound Fiji travellers on foreign-produced goods and services. In other words, the economic benefits that accrue from these travellers do not benefit the Fiji economy.

However, expenditure by outbound tourists on domestically produced services (for example, international flights on Fiji carriers, Fiji travel agents' booking fees, or travel insurance for outbound trips) is included within the TSA because it is a form of tourism and provides economic benefit to the Fiji economy.

The concept of usual environment is difficult to define because it depends on the nature of the country in question. For this reason, the WTO has not recommended a complete definition. Instead, it suggests possible criteria to be used by countries to establish their own definitions.

In the case of Fiji, for a tourist to be outside their usual environment they must, subject to previously stated exclusions, satisfy at least one of the following conditions:

- be travelling more than 40 kilometres from their residence (one way) and travelling outside the area they commute to for work or visit daily
- be travelling as an international tourist.

1.5 Tourism expenditure

Tourism expenditure is spending by, or on behalf of a tourist before, during and after a trip. This expenditure occurs either on the trip (for example, meals or souvenirs), or is travel related (for example, pre-booked airfares, luggage or other tourism-specific durables). The trip must be taken outside the usual environment of the tourist. This expenditure includes VAT.

Central to the definition of tourism expenditure are the concepts of 'tourist' and 'usual environment', as defined above.

Tourists are defined based on their relationship to their usual environment. Therefore, expenditure on a product may constitute tourism expenditure, depending on who is purchasing the product. Tourism expenditure is defined from the point of view of the tourist.

On-trip tourism expenditure is tourism expenditure occurring during a trip. Off-trip tourism expenditure is expenditure that occurs outside of a trip but relates to goods and services purchased specifically for use while on a trip.

1.6 Direct tourism demand

Direct tourism demand is VAT-exclusive expenditure made by, or on behalf of a tourist, before, during and after a trip. This expenditure occurs either on the trip, or is travel related. The trip must be taken outside the usual environment of the tourist. In other words, direct tourism demand is equivalent to tourism expenditure, excluding VAT.

For a product to be directly demanded (or directly purchased), there must be direct contact between the tourist and the producer of that product. Generally, this direct contact is a direct physical contact (for example, a tourist buys a meal from a restaurant). However, in the case of goods purchased by tourists from retailers, the direct contact concept is expanded to include a strong economic link between tourist and producer. This means that direct tourism demand resulting from a tourist's purchase of a good includes:

- the margin (or 'mark-up') of the retailer selling the good
- the margin charged by the wholesaler
- the amount received by the manufacturer.

In other words, the full (VAT-exclusive) purchase price of the good is included in direct tourism demand.

1.7 Indirect tourism demand

Indirect tourism demand is the value of intermediate inputs used in the production of goods and services sold to tourists. In national accounting terms (refer Glossary), it is the intermediate consumption incurred in producing the goods and services included in direct tourism demand.

Indirect tourism demand results from purchases of inputs by the producer of goods and services sold to tourists (that is, from direct tourism demand). For example, when a visitor buys a meal in a restaurant, the direct tourism demand is the cost of the meal. The meal's indirect tourism demand is generated from the purchase of intermediate inputs used by the restaurant in preparation of that meal – the purchase of meat and vegetables, electricity for cooking, and so on. In reality, several rounds of indirect tourism demands are generated for each direct tourism demand. This is because, at each stage of input purchases, input suppliers have to purchase further inputs to make the output. These are called backward-linkages. Producers of these inputs have no direct relationship with the tourist. Indirect demand is further described under multiplier effects.

2 Valuation basis used in Tourism Satellite Account

Tourism expenditure in TSAs is initially measured in purchasers' prices. Essentially, purchasers' prices are the amounts paid by tourists for products. Producers' prices are the amounts producers receive for selling their products. For this reason, they are exclusive of VAT. All monetary aggregates presented in TSA are in producers' prices, unless otherwise stated.

3 Tourism products

The tourism product ratio

The tourism product ratio is the proportion of the supply of a good or service consumed by tourists. It provides the means of classifying tourism products outlined below.

Classifying products sold to tourists

TSAs make a distinction between three categories of products:

- A **tourism-characteristic** product is one that would cease to exist in meaningful quantity, or for which the level of consumption would be significantly reduced in the absence of tourists. The international practice is that a product is classified as a tourism-characteristic product if at least 25 per cent of its production is purchased by tourists (that is, a tourism-characteristic product has a tourism product ratio greater than or equal to 0.25). However, in the Fiji TSA this was not strictly

followed in order to allow travel agency services, with a TPR of 0.20 to be classified under tourism characteristic category.

- A **tourism-related** product is distinct from a tourism-characteristic product in that tourists consume a smaller proportion of the total supply of the product. According to international practice, for a product to be classified as a tourism-related product, tourists must purchase more than 0 per cent and less than 25 per cent of its production (that is, a tourism-related product has a tourism product ratio that is greater than 0 and less than 0.25).

Note: A tourism-specific product is either a tourism-characteristic product or a tourism-related product.

- A **non-tourism-related** product is a product that is not a tourism-specific product.

A full list of tourism-characteristic and tourism-related products is presented in Appendix D. The criteria for categorising products are derived from the WTOs recommended treatment. When looking at product classifications, the following points are important to consider:

- The main purpose of making the distinction between categories of products is for presentation and analytical purposes. It allows analysis to be specifically focused on the products that make up the majority of tourism expenditure.
- Tourism products are not exclusively consumed by tourists. A non-tourist can consume a tourism-characteristic product. Rather than providing a robust set of products exclusively consumed by tourists, tourism product classifications provide a way of identifying an industry's supply of products consumed by tourists.

4 Industries producing tourism products

The tourism industry ratio

The tourism industry ratio is the proportion of an industry's output consumed by tourists. It provides the means of classifying industries outlined below.

Classifying industries producing tourism products

- A **tourism-characteristic** industry is one where at least 25 per cent of the industry's output is purchased by the tourists (that is, the tourism industry ratio is greater than or equal to 0.25). However, in the Fiji TSA this practice was not strictly followed in order to allow certain important industries such as travel agency to be classified under tourism-characteristic category.
- A **tourism-related** industry is one where the industry is not a tourism-characteristic industry. It is however an industry where a direct physical contact occurs between the industry and the tourist buying its products. As a result, manufacturing and wholesaling industries are not tourism-related industries. In practice, the retail trade industry is the only tourism-related industry.

- A **non-tourism-related** industry is any industry that is not a tourism-characteristic industry or a tourism-related industry. However, a non-tourism-related industry may still sell some of its products to tourists.

The following points relate to the TSA industry classification:

- The industries are consistent with the published industries within the Fiji Standard Industrial Classification 2004 (FSIC). A full list of tourism-characteristic and tourism-related industries is presented in Appendix E.
- It is important to note that the classification of industries outlined above has no effect on the value of direct tourism value-added. This is because direct tourism value-added is determined by the scope of total tourism direct demand, regardless of the classification of the industry. The tourism-characteristic and related industries are identified for extra emphasis in the TSA because they are significantly involved in tourism.

5 Value-added

Value-added is the 'value' that a producer adds to the raw material goods and services it purchases in the process of production. This can be shown as:

	Intermediate inputs (purchased raw materials and services)
plus	Value-added
equals	Output (produced goods and services)

Clearly, the value-added of a business is less than the value of its output.

Gross value-added is made up of several components:

- Compensation of employees – the cost of employing labour used to produce output.
- Operating surplus – the surplus or deficit accruing from production before taking account of any interest or rent payable on financial or tangible non-produced assets borrowed or rented by the enterprise, any interest or rent receivable on financial or tangible non-produced assets owned by the enterprise,
- Net taxes on production and imports – taxes payable (less subsidies receivable) on goods and services when they are produced, plus taxes and duties on imports that become payable (less subsidies receivable) when goods enter the country.
- Depreciation of capital assets used in production (that is, consumption of fixed capital).

Direct tourism value-added

Direct tourism value-added is the value added by producers from the production of goods and services directly sold to tourists. This results in a measure of the contribution of tourism to GDP which is consistent with that measured for other industries in the economy.

Relating direct tourism value-added and tourism expenditure

It is important to distinguish between the two related concepts: total tourism expenditure and direct tourism value-added. The two are not the same and differ in both concept and scope.

Tourism expenditure equals output sold to tourists, plus imported goods directly purchased by tourists. Direct tourism value-added, on the other hand, equals the value of goods and services produced domestically and consumed by tourists, less the value of intermediate inputs required to produce these goods and services.

The relationship between these concepts can be summed up as follows:

	Total tourism expenditure
less	VAT
equals	Direct tourism demand
less	Imported goods purchased by tourists from retailers
equals	Direct tourism output
less	Direct tourism intermediate consumption
equals	Direct tourism value-added

6 Import leakage

Import leakage refers to the amount spent on imported final, intermediate and capital goods as a percentage of total foreign exchange earnings. For example, an import leakage of 4 per cent means, out of total foreign exchange earnings, 4 per cent 'leaked' out of the country due to imports. The higher the import leakage, the lower the economic activity as imports reduces the domestic economic activity.

7 Multiplier effects

7.1 Direct, indirect and induced effects

The total multiplier effects are the summation of direct, indirect and induced effects. Direct effects are the incomes generated through initial spending by tourists. Indirect effects occur when suppliers of final goods and services purchase inputs. Induced effects occur when the employees in the tourism sector spend part of their wages and salaries to purchase goods and services for their use.

This input purchasing process does not end up in the first round, since each input requires further inputs in its production process. For example, the effect of the production of a motor vehicle does not end with the steel, tyres, and other components required. It generates a long chain of interaction in the production process since each

of the products used as inputs needs to be produced and will, in turn require various inputs. The production of tyres, for instance, requires rubber, steel and cloth etc. which in turn require various products as inputs including transport services provided by motor vehicles that necessitates the production of motor vehicles in the first place. One cycle of input requirement requires another cycle of inputs which in turn requires again, another cycle. This chain of interaction goes into infinity.

This multiple cycle of generation of income/expenditure process is applied to induced effects too. For example, producers that sold goods and services to tourism employees pay salary and wages to their employees. They in turn make purchase of goods and services which will create another cycle of wage and salary payments and so on.

7.2 Backward linkages

The links among all supplying sectors that played some role to produce the goods and services required to meet the initial demand are known as backward linkages. Backward linkages arise because of input purchases at each stage of production processes.

7.3 Multiplier coefficients

The multiplier coefficient is the change required in all industries to meet additional demand by one dollar for a particular industry. It is the ratio between change in total gross output and change in demand. For example, the multiplier coefficient of 1.5 shows that \$100 worth of additional demand for hotels and restaurants industry requires \$150 worth of gross output in all industries to meet that demand. On the basis of Input-Output table, several multiplier coefficients could be identified as:

- **Output multiplier** – total of all outputs from each industry required in order to produce one additional unit of output;
- **Employment multiplier** – total increase in employment throughout the economy which results from an increase in final demand for a particular industry which is enough to create one additional employment in that industry; and
- **Income multiplier** – increase in income from employment throughout the economy that results from a change of one dollar of income from employment in a particular industry.

7.3.1 Type I and Type II multiplier effects

When direct and indirect effects are taken into consideration it is known as Type I multiplier effects. Type I multiplier effects plus induced effects are known as Type II multiplier effects.

Appendix C: Methodology

1 Direct tourism value-added

Tourism expenditure and direct tourism value-added (or tourism's contribution to GDP) are the two major economic aggregates derived in the TSA.

Tourism expenditure measures the value of products purchased by visitors, whether purchased before, during or after travel.

Direct tourism value-added measures the value of the output of tourism products by industries, less the value of intermediate inputs used in producing those products. When summed across all industries it shows the direct 'value-added' to the economy by the tourism industry.

Appendix A Tables 1, 2, 3, 4, 5 and 6 detail the main components relating to the measure of direct tourism value-added. This involves the following steps:

- Step 1:** Total output of each tourism -characteristic and -related industry presented in Table 2 was disaggregated into tourism products in Table 3. This gave the total supply of each industry classified by products. The total supply classified by products, excluding retail, was carried on to Table 4.
- Step 2:** Tourism expenditure by type of product and type of tourist was calculated in Table 1. Firstly the international demand estimates were added to the table. Household, government and business expenditure were generally estimated using economic survey data or information from the unpublished 2002 Supply Use tables. Total tourism expenditure is carried on to Table 4.
- Step 3:** Total output of each tourism characteristic and related industry as published by FIBOS is presented in Table 2. This table also shows the components of GDP, i.e. compensation of employees, consumption of fixed capital and gross operating surplus.
- Step 4:** The tourism product ratio for each product is summarised in Table 4. The ratios are obtained by dividing the value of total tourism expenditure (demand) by the total supply.
- Step 5:** Each industry's supply by product given in Table 3 was multiplied by the tourism product ratio to calculate the tourism supply by industry. Table 5 presents tourism supply for tourism-characteristic, related and all other industries.
- Step 6:** Tourism supply in Table 5 was then divided by total output in Table 3 to give tourism industry ratios – the proportion of each industry's total output that is purchased by tourists.

Step 7: The tourism industry ratios were multiplied through each industry's production account given in Table 2 to obtain total tourism value-added. Table 6 presents total tourism value-added resulting from tourism-characteristic, related and all other industries.

The following methodological information on the calculation of direct tourism value-added is ordered according to the steps above.

2 Calculating tourism expenditure

Appendix A Table 1 presents tourism expenditure by type of product and by type of tourist. Expenditure by the four types of tourist was calculated as described in the following sections.

2.1 International tourism expenditure

The main data source for international expenditure was International Visitor Survey – 2002 (IVS 2002). The estimates are grouped into nine Broad Category Expenditure Groups, such as Accommodation, Air/Sea Day Trips and Shopping, etc. The largest broad category expenditure group commodity is Accommodation, which concurs to the TSA Accommodation commodity. The other broad category expenditure group categories do not concord exactly to the TSA commodities, and were classified to the TSA commodities after reviewing the commentary in the IVS report which discussed what activities were included in each group. This commodity analysis was used to break down the BOP travel credits estimates into commodities. BOP Air Transport (excluding freight) is also included in the international tourism expenditure estimate.

2.2 Household tourism expenditure

Original detailed estimates of Household expenditure in the Use table were based on the 2002 Household Income and Expenditure Survey (HIES). The HIES has a detailed breakdown of household expenditure into categories, and this information was converted into TSA commodities. These original HIES based estimates were further modified due to the commodity balancing process.

2.3 Government and Business travel expenditure

Due to the lack of comprehensive data on government and business travel, these components were estimated having considered the proportions of household expenditure and international expenditure in the total tourism expenditure.

3 Production of tourism goods and services

Analysing the production of tourism-characteristic and tourism-related products starts with the production accounts by industry underlying the published national accounts. These are shown in Appendix A Table 2. On the other hand, total sales of tourism characteristic and related products classified by tourism characteristic and related industries are compiled and presented in Appendix A Table 3. Compilation of total sales in Table 3 was carried out using the aggregate sales data and disaggregating

them among products and industries maintaining inter-industry relationships found in the 2002 Supply and Use tables.

4 Balancing tourism expenditure and tourism production

Supply-use balancing¹ is an established and integral process in the compilation of the national accounts. It is used, in the words of the *System of National Accounts 1993*, "for checking the consistency of statistics on flows of goods and services obtained from quite different kinds of statistical sources". The supply-use balancing process applies rigorous examination to diverse data sources, reconciling them in a framework that reduces the error margins implicit in these individual data sources. The supply-use approach provides the best framework to bring the demand and supply sides of the economy into balance. The usual process is to confront supply and demand by product, and perform adjustments so that the value of the supply of each product is equal to the value used. Adjustments are made to either supply or demand, depending on the relative strength of each data source. In doing so, the potential for errors that may result from the use of a single data source, either supply- or demand-based, is reduced.

In the absence of standard supply/use tables, TSA focused on matching total supply found in Table 3 and total demand found in Appendix A Table 1 to maintain a reasonable tourism product ratio for each product. This process required individual judgments, common sense, expertise consultations and referring to tourism product ratios found in TSAs compiled by other countries. The TSA began with carefully examining the demand side and the supply side and making adjustments either to demand, to supply or to both. Final tourism product ratios (TPR) were derived by dividing total demand by total supply for each product. This is presented in Appendix A Table 4.

Once TPRs were derived, total sales of each product classified by industries were multiplied by TPRs to estimate the tourism sales. This was done by multiplying each row of Table 3 by TPR applied to that particular product. (Imports column was treated separately as described in a section below). The result of this exercise is the tourism sales classified by type of product and type of industry and presented in Appendix A Table 5. The tourism industry ratio is the ratio between the total tourism sales in Appendix A Table 5 and total sales Appendix A Table 3 for each industry.

¹ Supply-use balancing entailed:

Supply:

- Industry output from 2002 survey data
- Imports of goods and services

Use:

- Industry intermediate consumption from 2002 survey data
- Household consumption from HIES 2002
- Gross Fixed Capital Formation from 2002 survey data supplemented by other sources
- Exports of goods and services

Total tourism sales are also the tourism output which is presented together with tourism production accounts in Appendix A Table 6. Tourism value-added was derived from the tourism production account information found in Table 6.

A major assumption was made in the compilation of the TSA, relating to the use of the tourism product ratio and the tourism industry ratios. The industry technology assumption is that the input requirements of tourism and non-tourism products are identical for an industry. That is, if 50 per cent of the output of an industry is made up of goods and services sold to tourists, then 50 per cent of its inputs are used to produce those tourism goods and services. This is likely to be a more valid assumption for industries where an industry's products are relatively homogenous (where an industry makes a range of products that are very similar, requiring similar inputs). However, there will be some instances where the assumption is less valid. This is more likely to be the case where an industry has a low degree of tourism specialisation, and a diverse range of products are produced.

An alternate assumption is to relate specific inputs to outputs, ie a product technology assumption. However, this approach is not easily implemented due to the lack of sufficiently detailed product data. Industry data, on the other hand, is far more readily available. Both the industry and product technology assumptions are sanctioned by the WTO.

5 Treatment of imports

Imported items directly purchased by tourists from retailers were estimated as a residual in Chart 1 after all other variables were estimated.

6 Direct tourism employment

Direct tourism employment, in Appendix A Table 7 was derived by applying tourism industry ratios to the number of persons engaged in each industry. This approach produces a value for the number of persons engaged in each industry as a result of tourism. Employees classified as salary earners and wage earners were taken in to consideration in estimating tourism employment. This excludes employees such as working proprietors and self-employed persons. Therefore, care should be taken as estimated number of employees may under-estimate the actual employment.

The total number of employees classified by salary earners and wage earners was not available for 2002. Employee numbers for 2002 were interpolated using employee numbers for 2000 and 2003 found in the Annual Employment Surveys of 2000 and 2003 of FIBOS.

7 Gross Fixed Capital Formation

Gross Fixed Capital Formation was available from the 2002 economic survey data from FIBOS. Results are presented in Appendix A Table 8.

8 Multiplier analysis

The purpose of the multiplier analysis was to examine direct, indirect and induced effects based on the Input-Output table 1995. The 1995 multipliers were applied to the 2002 study. Following steps were followed in estimating multiplier effects.

Step 1: Derivation of Leontief inverse matrices (Type I and Type II)

The Leontief inverse matrices were derived from the inter-industry matrix.

The formula for the Type I Leontief inverse matrix is as follows:

$$L = (I - A)^{-1}$$

Where:

- L = Leontief inverse matrix
- A = Direct requirements matrix – each cell of the IxI matrix divided by column total. IxI matrix is the intermediate demand quadrant of the Input-Output table.
- I = Identity matrix with same dimensions as in the direct requirements matrix

The Type II Leontief inverse matrix was calculated in the same way as the Type I above. But as its purpose was to estimate the flows of money in and out of households and the effect of these transactions upon industries, it was necessary to ‘endogenise the household sector’. Put simply, we treated households as an additional industry by adding an extra row and column into the direct requirements table for ‘compensation of employees’ and ‘household expenditure’ coefficients respectively.

Step 2: Derivation of multipliers and effects

a. Output multiplier

$$\alpha_{\text{Output}(j)} = \sum_i L_{ij}$$

i=number of rows, j=number of columns and i=j.

The Type I output multiplier for a particular industry (j) is defined to be the total of all outputs from each domestic industry required in order to produce one additional unit of output: that is, the column sums (\sum_i) from the Type I Leontief inverse matrix (L_{ij}). Similarly, the Type II output multiplier was calculated as the column sums of Industry rows (excluding compensation of employees) from the Type II Leontief inverse matrix.

b. Employment multiplier

$$\alpha_{\text{Empl}(j)} = \sum_i w_i L_{ij} / w_j$$

The employment multipliers show the total increases in employment throughout the Fiji economy which result from an increase in final demand which is enough to create one additional FTE (full-time equivalent) employment in that industry. In the formula above, 'w' is equal to FTE per \$ of total output for each industry.

This analysis requires Full-Time Equivalent employment (FTE) data. This data is required in the format of the number of FTE's by the 46 industry sectors. Due to the lack of FTE data, total salary and wage earners published by FIBOS were used as a proxy for FTE employment. Note that this data covers only employees and therefore does not cover working proprietors and self-employed persons. Therefore, employment effects for the industries that contain a large number of working proprietors and self-employed persons may be higher than the estimated effects.

c. Income multiplier

$$\alpha_{\text{Income}(j)} = \sum_i v_i L_{ij} / v_j$$

The Type I and Type II income multipliers show the increase in income from employment (IFE) throughout the economy that results from a change of \$1 of income from employment in each industry. In the formula above, 'v' refers to the ratio of IFE/total output for each industry.

Limitations of Multipliers

Care must be taken when interpreting multiplier coefficients because of the following limitations.

1. "Large multipliers" are not the same as "large multiplier effects". The impacts or effects depend on both the size of the multiplier and the magnitude of the "exogenous" stimulus by which the multiplier coefficient is multiplied. Thus, given multiplier effects can be alternatively the result of:
 - large multipliers associated with minimal "expenditures" or
 - small multipliers and substantial "expenditures".
2. Multipliers developed for an industry is representing the industry as a whole but not individual establishments within an industry.
3. Multiplier effects are based on assumptions about the availability of unutilized or under-utilized resources and people to accommodate the effects. Since many resources are already utilized in certain sectors of an economy, multiplier effects tend to ignore or mask (negative) displacement effects. Thus, positive multiplier effects will -presumably in a highly differentiated way- include hidden opportunity costs and substitution effects.

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4. Empirically derived multipliers represent the period for which the underlying relationships have been quantified. Such relationships do not just change ("structurally") over the long-haul but are sensitive to cyclical variations. Particular reference should be made to the tendency that during boom periods (when the economy may run out of resources) multipliers tend to decrease, while spatial efficiencies and local loyalties may enhance the multiplier during downturns.

Further, there are potential changes of multipliers over time due to:

- Change in technology i.e. change from labour intensive to capital intensive technology
 - Increasing (or decreasing) benefits from scale of production ("scale economies")
 - Variations in product mix (within industrial sectors) including entirely new products (or loss of products); the same applies to the coming and going of entire branches of industries or sectors.
 - Relative price changes (as such given that coefficients have a monetary foundation)
 - Input substitutions (in response to price changes or technological change)
5. Multiplier effects do not necessarily occur after the specified exogenous stimulus. Thus, in addition to the difference between short- and long-run multipliers, one may have to consider that multiplier-related behaviours can be based on expectations and may thus occur in advance of the actual stimulus.

9 Differences between 1995 and 2002 methodology

The 2002 TSA estimates have attempted to follow the 1995 methodology as far as possible, although some modifications have been made due to time constraints and restrictions of the data. Supply and Use tables were prepared to aid the 2002 estimates, but due to lack of time, Input-Output tables were not prepared.

Dr Tantri Tantirigama, who completed the 1995 TSA, reviewed the 2002 calculations and approach taken to ensure the 2002 estimates are as consistent as possible with the 1995 TSA.

As an example of this, the originally estimated tourism industry ratio for the Water Transport industry was estimated as 0.90 in the 2002 TSA. The 1995 TSA has a ratio of 0.32. Dr Tantirigama indicated that the lower ratio was due to the influence of water freight within the industry, which was not related to tourism. In the absence of other information, and to follow the same reasoning for 2002, it was decided to retain the 0.32 tourism industry ratio for the Water Transport industry in the 2002 TSA, and recalculate the appropriate figures in Appendix A Tables 1, 3, 4 and 5 accordingly.

This is an instance of a pragmatic modification to the methodology described above. While the above description of methodology holds for most of the 2002 TSA calculations, it should be borne in mind that adjustments such as this have been made to the basic methodology. In all cases these adjustments were made to improve the quality of the overall estimates.

For the estimate of the tourist industry ratio for the Hotels industry, the survey figure for output was increased. This was due to difficulties in reconciling the Accommodation output from the economic survey with the International Tourism Use of Accommodation². The tourism industry ratio is applied to the survey data for Hotels and the figures in Appendix A Table 2 and Table 6 are consistent with FIBOS economic estimates.

² The Accommodation Output from the economic survey is obtained from all licensed Hotels operating in Fiji and these hotels report on the income they receive in the form of accommodation sales etc. The International Tourism Use of Accommodation is obtained through interviewing tourists on the amount they spent on accommodation etc at the departure lounge of the Nadi and Nausori Airports.

Data obtained on accommodation from the two sources differ as result of:

- A large percentage of tourists travel on pre-paid packages bought in the home country. In their interview they report the amount they paid for the package but what the hotel eventually receives is net off discounts hence the two data will differ by a small percentage. The package may also comprise of expenses, other than accommodation.
- Tourists may report on the total amount they paid to the hotel and this total amount may include cruise, road tours, fire-walking and traditional dinner etc. The hotel on the other hand will report only accommodation sales under accommodation and the rest under recreation, sporting activities, entertainment etc. The supply and use balancing process has attempted to adjust for this.
- Tourists may report on accommodation that may not be registered hence not covered in the Hotel Survey eg home-stay in villages.

Appendix D: Tourism Product Descriptions

Tourism characteristic products		
TSA main product	Sub-groups and minor groups	
Accommodation services	Hotels and similar establishments	Hotels
		Similar establishments
	Specialized establishments	Health establishments
		Work and holiday camps
		Conference centers
	Other collective establishments	Holiday dwellings
		Tourist campsites
		Other collective establishments n.e.c
	Private rental accommodation	Rental rooms in family homes
		Dwellings rented from private individuals or professional agencies
	Private non-rental accommodation	Owned dwellings
		Accommodations provided without charge by friends or relatives
Other private tourism accommodation		
Food and beverage serving services	Meal-serving services with full restaurant services	
	Meal serving services with self-service facilities	
	Other food serving services	
	Beverage-serving services for consumption on the premises	
Road transport	Motor coach, bus and other public transport	Scheduled or regular services
		Non-scheduled, tour and charter
	Private vehicles (with capacity up to eight persons)	
Other means of land transport		
Motor Vehicles hire/rental	Vehicles rented out to the traveler by a commercial organization	Rentals with driver
		Rentals without driver
		Taxi services
Air transport	Scheduled flights	
	Non-scheduled flights	
	Other air services	
Water transport	Passenger lines and ferries	
	Cruise	
	Other water transport services	
Travel agency services	Travel agency services	
	Tour operator services	
	Tourist information services	
	Tourist guide services	
Sports, recreation and other activities	Participants sports: Golf, tennis, boating, swimming, hiking, hunting, fishing, camping, picnicking etc	
	Spectator sports: Rugby, soccer, football, baseball, basketball, hockey, cricket, horse riding, etc	
	Cultural activities: Visiting theatres, museums, zoos, botanical gardens, historic sites, amusement parks, cruises, game reserves, fairs, festivals etc	
	Meetings and conventions: Attending congresses, conferences, meetings, trade shows, classes, instructional courses, etc	
	Religious activities: Pilgrimages, attending religious events etc	
	Sightseeing: Guided tours, self-guide tours	
	Health activities: Visiting spas, hospitals, clinics, health resorts, gymnasias, exercise classes etc	

Tourism characteristic products	
TSA main product	Sub-groups and minor groups
	Visiting restaurants, night clubs, and bars; casino gaming, other types of gambling all others nec
Tourism related products	
Retail Sales – Alcohol	Liquor or brew containing alcohol as the active agent. e.g. Beer, wine, liquor
Retail Sales – Clothing and footwear	Retail Sales – Clothing, Retail sales - Shoes/ Sandals
Retail Sales- Food, beverages, tobacco and cigarettes	Retail Sales – Foodstuff, Retail sales - Beverages Retail Sales – Cigarettes/Tobacco
Retail Sales – Souvenirs and handicrafts	Retail Sales – Souvenirs and handicrafts
Retail Sales – Perfumes and Cosmetics	Retail Sales – Perfumes Retail Sales - Cosmetics
Retail Sales – Jewellery Watches/Clocks, Paintings, Sunglasses	Retail Sales – Jewellery Retail Sales - Watches/Clocks, Retail Sales -Paintings, Retail Sales - Sunglasses
Retail Sales – Handbags, wallets, suitcases and travel bags	Retail Sales – Handbags/wallets, Retail Sales – Suitcases/travel bags
Retail Sales- Other Shopping	Retail Sales - Book/stationery Retail Sales - Cameras/Equipment Retail Sales - Toys/Games Retail Sales – Electrical Goods Retail Sales – CD’S

Appendix E: Tourism Industry Concordance

Tourism Characteristic Industries				
TSA Industry	FSIC Rev 2 code	FSIC 2004	FSIC Industry	FSIC Industry description
Hotels and other lodging places	6320	55101	Hotels, rooming houses, camps and other lodging places	Hotels, rooming houses, camps and other lodging places and restaurants facilities located within lodging premises; The provision, on a fee basis, of lodging, camping space and camping facilities. Restaurants facilities operated in connection with the provision of lodging are included in this group
Cafes and restaurants	6310	55201 55202	Restaurants, cafes, bars and other eating and drinking places	Restaurants, cafes, bars and others eating and drinking places including mobiles canteens, taverns, nightclubs and licensed dance halls and socials clubs: Establishments selling prepared foods and drinks of immediate consumption such as restaurants, cafes, lunch counters, refreshment stands and canteens. Also included are catering and eating facilities in factories and officers which can be separately reported
Water transport	7121	61120	Sea cruise and sea tour operators	Sea cruise and sea tour operator, including floating hotels
	7122	61101	Other ocean and coastal water transport	Operation of vessels for the transport of freight and passengers overseas and coastwise (exclude ships agents to be classified in FSIC 7190)
	7123	63031	Supporting services to water transport	Supporting services to water transport: Such as marine salvage services, towing and stevedoring
Air transport	7130	62101	Air transport carriers	Air transport such as carrying of passengers and freight whether by regular services or by charter (exclude airline ticketing agents to be classified in FSIC 7190)
Land transport	7111	60211	Bus Transport	Scheduled bus and coach transport
	7112	60221 60222	Taxi	Taxi cabs
	7113	60231	Freight transport by road	Local and distance trucking; courier services
	7119	60223	Land Transport not elsewhere classified	Rental and hire cars which are either self driven or chauffeur driven, chartered land transport tour operators
Other transport, storage and services aligned to transport	7190	63011 63021 63031 63041 63099	Services allied to transport	Transport agents not elsewhere classified such as forwarding agent i.e. custom agents, packing and crating; travel agencies, airline ticking agents, ships agents and airport terminal services etc
Recreational and cultural services	9410	71302 92111 92121 92131	Motion pictures and other entertainment services	The renting of motion picture films or video tapes; operating motion pictures theatres, radio services and television broadcasting
		92311 92321 92331	Libraries and museums	Libraries, museums, botanical and zoological gardens and other cultural services not elsewhere classified: Such as libraries; museums; botanical and zoological gardens, aquariums and similar institutions

Tourism Characteristic Industries				
TSA Industry	FSIC Rev 2 code	FSIC 2004	FSIC Industry	FSIC Industry description
	9490	92141 92199 92411 92499	Amusement and recreational services not elsewhere classified	Operation of unlicensed dance halls; billiard and pool rooms; amusement centers, skating rinks; race course betting agents; riding schools; football clubs and associations, etc
Tourism Related Industries				
Retail Trade: Comprises of businesses dealing with the resale of new and used goods to the general for personal household consumption, or for utilization by shops, stalls and consumer co-operatives	6210	52111 52199	Departmental stores and general merchants	Retailers whose sales span a wide range of goods, such that they have less than 40 per cent of sales falling into any one of the following retail group (not sub-groups)
	6221	52201	Grocery, fresh and frozen meats, fish etc	Fresh and frozen fruits and vegetables, bakery, soft drinks, dairy and related foodstuff stores
	6222	52202	Beer, wines and spirits and cigarette and tobacco stores	Beer, wines and spirits and cigarette and tobacco stores
	6231	52321 52401	Ready-made clothing and wearing apparel	Ready made clothing and wearing apparel (excluding footwear), jewellery; drapery, piece-goods, haberdashery and household textiles stores (where this activity is combined with tailoring, retailing must provide 50 per cent of the income)
	6232	52322 52401	Footwear and leather goods	Footwear and leather goods
	6240	52331 52401	Household goods and appliances	Furniture, floor coverings, soft furnishing and beddings; electrical and non-electrical household appliances; crockery cutlery, kitchen utensils and other household goods including perambulators, etc. not elsewhere classified
	6250	52332 52392	Tourist goods	Radios, radiograms, video and television sets, musical instruments including records, watches, souvenirs and novelties, sports goods travel requisites, toys; photographic, optical and scientific goods dealers
	6261	52311	Pharmaceutical supplies	Pharmaceutical supplies, cosmetics and toiletries
	6262	52393	Chemical fertilizers, manures	Chemical fertilizers, manures, cleaning preparation and domestic gases stores
	6270	52341	Hardware	Builders hardware and materials including print dealers; gardening tools and others hardware stores
	6281	50101 50301 50401	Motor vehicles	Motor vehicle including motor cycles, marine engines and parts; motor vehicle parts and accessories dealers, car wreckers
	6282	50501	Petroleum	Petroleum, petroleum products and related materials including petrol stations
	6291	52399	Books, periodicals	Books, periodicals, stationery and newspapers, florists, etc. and other commodities not elsewhere classified
	6292	52399 52521 52599	Hawkers and stall holders	Hawkers and stall holders dealing mostly in handicrafts etc. including establishments engaged in buying and selling bottles

Glossary

Basic price

The amount receivable by the producer from the purchaser for a unit of a good or service produced as output minus any tax payable, and plus any subsidy receivable. It excludes any transport charges invoiced separately by the producer.

Compensation of Employees

Includes payments, whether in cash or in kind, made by the employer during the inquiry period for the work done to all persons included in the count of employees. It includes all cash payments, commissions, bonuses, cost of living allowances and wages paid during periods of vacation, sick leave, contributions in respect of their employee's social security and pension and payments in kind.

Consumption of Fixed Capital

In theory this is the value of the current replacement cost of fixed assets used up during the accounting period as a result of normal wear and tear.

Gross domestic product (GDP)

The total market value of goods and services produced in Fiji after deducting the cost of goods and services utilized in the process of production, but before deducting allowances for the consumption of fixed capital.

Gross fixed capital formation

The total value of a producer's purchases, less disposals, of durable real assets such as buildings, motor vehicles, plant and machinery, hydro-electric construction, roading and improvements to land. Land is excluded from gross fixed capital formation. Included is the value of construction work done by a firm's own employees. The term 'gross' indicates that consumption of fixed capital has not been deducted from the value of the outlays.

Gross operating surplus

This residual item is output at producer's values, less the sum of intermediate consumption, compensation of employees, and taxes on production and imports net of subsidies. It is approximately equal to accounting profit before the deduction of depreciation.

Gross output

Gross output is defined as gross value of all goods and services produced during the accounting period. These include income from production during the year, gross margin on resale goods, the value of capital construction for own account and other income.

Imports of goods and services

All goods and services produced by non-residents and purchased by Fiji residents.

Intermediate consumption

Intermediate consumption consists of non-durable goods and services, which are used up, in the production process. In principle non-durable goods are those goods, which have an expected lifetime of use of less than one year, or less than the accounting period. Compensation of employees does not form part of intermediate consumption, but expenditure such as traveling expenses of management personnel is included. Intermediate consumption

differs from total purchases of raw materials, fuels etc. by the amount of stock changes of such goods. Valuation of intermediate consumption is at purchasers' value i.e. it is inclusive of all costs incurred by producers in the acquisition of the required goods and services.

Net capital stock

A measure of wealth, net capital stock is the accumulated written-down value of fixed assets valued in current prices. It is equal to accumulated investment less retirements and less accumulated depreciation for assets still operating.

Output

Output consists of goods and services produced within an establishment that become available for use outside that establishment, plus any goods and services produced for own final use.

Producer values

The equivalent of purchaser values (see below), reduced by the trade and transport margins for delivering the items from producer to purchaser. This effectively gives the market sales value for the producer at the factory door, farm gate, mine head, and so on. For services, the producer value is the same as the purchaser value, as services are produced and consumed at the same time.

Purchaser values

The costs in the market of goods and services on delivery to the purchaser. For services, the purchaser value is the same as the producer value, as services are produced and consumed at the same time.

Salary earner

An employee who is paid fortnightly or monthly on the basis of an annual salary.

Self-employment

Self-employed workers are persons who are the sole owners, or joint owners, of the unincorporated enterprises in which they work, excluding those unincorporated enterprises that are classified as quasi-corporations. The self-employed are persons who work for themselves when, the enterprises they are neither distinguished as separate neither legal entities nor separate institutional units in the System. Self-employed persons receive mixed incomes and not compensation of employees.

Value-added

Value added is the difference between the gross output and the intermediate consumption. It provides a useful way of measuring without duplication the economic importance of an industry or industrial sector.

Wage earner

A worker on piece-rate, hourly daily or weekly rate of pay.

Working proprietors

Working proprietors are owners of enterprises who are actively engaged in the work of the enterprise. Excluded are silent or inactivate partners

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