DEA RESEARCH DISCUSSION PAPER
Number 44
October 2001

Development of preliminary tourism satellite accounts for Namibia

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Edited by Directorate of Environmental Affairs
Cover illustration by Helga Hoveka

Work on this paper has been funded from the United States Agency for International Development (USAID) Regional Office for Southern Africa through the Natural Resource Accounting for Southern Africa (NRASA) project. Further funding was provided indirectly by the Swedish Government (Sida) and the Namibian Government.

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Acronyms

GDP	gross domestic product
ISIC	International Standard Industrial Classification
NZ	New Zealand
PPMIU	Policy Planning and Management Information Unit (MET)
TSAs	tourism satellite accounts
USA	United States of America
WTTC	World Travel and Tourism Council

Abstract

In Namibia, as in many countries, reliable and accurate information regarding the economic impact of tourism has not been available. In an attempt to overcome this problem, a set of preliminary tourism satellite accounts for Namibia has been constructed using currently available data. Such accounts are designed to accurately determine the size and importance of the tourism industry within an economy. The accounts present information including supply of, and expenditure on, tourism commodities, as well as gross value added of, and employment within, the tourism industry. The limitations of the data used are identified, and recommendations to improve both data quality and quantity are made. Opportunities to improve these accounts in the future and the importance of such accounts in policy making are outlined. The development of a comprehensive set of accounts is feasible, and the potential for their use in policy making and economic analysis is great.

1. INTRODUCTION

Tourism is often said to be one of the largest industries in Namibia, though very little data has been available to date on which to base such claims. The World Travel and Tourism Council has estimated that the contribution to gross domestic product (GDP) of the tourism industry in 1999 reached 9.6 per cent (up from 8.1 per cent in 1996) and is estimated to grow to 11.6 per cent by 2010, though these estimates are based on macroeconomic models rather than actual data (WTTC, 1999). A preliminary set of Tourism Satellite Accounts (TSAs) has been developed to provide at least some information about the industry, as well as to determine information needs for the construction of more comprehensive accounts in the future. The project, carried out by the Namibian Ministry of Environment and Tourism, was part of a wider regional project to determine the potential of the development of such accounts in South Africa, Botswana and Namibia—see Poonyth et al. (2001).

Satellite accounts use data from national accounts, and are constructed based on national accounting principles to measure the value of economic assets or activities that are included in the national accounts, but are not explicitly identified. Their use lies in enabling comparisons regarding the size and importance of traditionally defined industries (e.g. agriculture, manufacturing, etc.) and non-traditionally defined industries (e.g. tourism) within an economy. The information reported in a set of satellite accounts also enables better and more efficient policy development and planning.

TSAs should produce a set of ten tables, if the UN/WTO methodology is followed. These tables provide information on inbound, outbound and domestic visitor consumption, production activities of producers of tourism products, tourism industry value added, employment and compensation in the tourism industry as well as tourism industry capital formation and collective consumption. These outputs enable macroeconomic aggregates of the size and economic importance of tourism to the whole economy to be compiled. Data on visitor expenditure and how this is met (i.e. by domestic production or imports) is presented, so the extent of linkages and leakages within the economy can also be assessed.

The construction of all ten tables requires a significant amount of information—much of which is often practically difficult to obtain. However, the advantage of using the WTO method is that the tables can be constructed incrementally as data becomes available. Thus the most basic accounts (such as those compiled for Namibia) include tables on tourism industry production (supply), visitor expenditure (demand), tourism value added and employment, as well as visitor profiles (country of origin, purpose of visit, length of stay, trip expenditure, etc.). As more data becomes available, more complete sets of accounts can be built to include the remaining tables outlining tourism gross fixed capital formation, tourism collective consumption (e.g. tourism promotion, control/regulation of the industry by government, etc.).

The construction of a full set of tables for Namibia is expected to be some years away due to data limitations, however, Namibia recently constructed preliminary TSAs which are presented below. Given that only currently available (and seriously limited) data was used, it must be recognised that these results should be used to indicate, rather than comprehensively and accurately describe the tourism industry.

This paper describes the process of development of the Namibian TSAs with the aim of identifying the constraints to constructing TSAs, as well as opportunities and lessons for the future. The report is structured to include the methodology used in the construction of the Namibian TSAs, the results—the tables constructed for 1991, 1992 and 1996—and the conclusions and recommendations for improving and updating these accounts.

2. METHODOLOGY

2.1 Definitions

In constructing TSAs, the clarity of definition and concepts used is vital. The compilation of the Namibian TSAs followed closely the UN-Eurostat-OECD-WTO methodology and definitions, as outlined below.

The definition of tourism adopted in this case is: 'the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year, for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited' (UN et al., 2000:1). This includes tourism most commonly for the purposes of leisure, visiting friends and relatives, business travel (e.g. to attend conferences—by both government and non-government personnel) by both residents and non-residents. The definition includes same-day and overnight travel, and travel for health treatment and for religious purposes (such as pilgrimages). Students travelling abroad but still financially dependent on their families are excluded, as are cross-border shopping trips that are undertaken on a regular basis (UN et al., 2000). Migrant travel, travel by diplomats and military personnel and commuter travel are also excluded from consideration (OECD, 2000).

The meaning of 'usual environment' is ambiguous, though it often refers to some specific geographical boundary (e.g. a radius of 25 kilometres of around an individuals' permanent residence). This interpretation can cause difficulties by excluding some activities a household/individual may undertake within this boundary (e.g. a visit to a local museum that is not frequently visited), and has the potential to include some activity that occurs outside the usual environment (e.g. regular visits to family outside the 25 kilometre radius) (OECD, 2000).

In the Namibian TSAs, given the lack of data available relating to domestic tourism, a geographical boundary for the 'usual environment' has been sufficient, but this may have to be re-evaluated when the accounts are updated.

TSAs present information on both visitor expenditure and tourism supply, which theoretically (according to accounting principles) should be equal—though in practice this is rarely the case (discussed in more detail in Section 3.2).

Tourism demand is defined by the OECD as 'expenditures made by, or on behalf of, the visitor before, during and after the trip and which expenditure is related to that trip, and which trip is undertake outside the usual environment of the visitor' (OECD, 2000:16). Thus, tourism demand is the expenditures that visitors make (or are made on their behalf e.g. by travel agents) on preparations for their trip, during their trip and immediately after their return, and is referred to here as tourist or visitor expenditure. This analysis determines what visitors purchase for their trip and from which industries—recognising that these purchases of goods and services are made for the 'direct satisfaction of individual needs or wants' (UN et al., 2000:18).

Given the nature of the data available in Namibia when these accounts were constructed, issues relating to definitions of tourism business expenditures and other issues such as how to treat second homes, package tours and gross fixed capital formation have not yet been considered within the Namibian context.

Identifying tourism supply can be difficult because the industry is not classified according to 'standard' procedures. The national accounts define industries using the International Standard Industrial Classification (ISIC), which classify industries as groups of establishments engaged in the same or similar kinds of productive activities, or groups producing similar types of goods and services. However, the tourism industry cannot be defined in this way—it does not have a single characteristic product or production process, but is made up of a number of different products produced by different

(traditionally classified) industries. Thus, tourism goods or services are defined because of the classification of the purchaser as a tourist rather than because of the nature of the product itself. To more easily identify tourism goods and services, they are separated into three different groups: tourism characteristic products, tourism connected products and tourism non-specific products. Tourism characteristic products as defined by UN et al., are 'those products which in most countries would cease to exist in meaningful quantities, or those for which the level of consumption would be significantly reduced in the absence of visitors' (2000:35). The tourism characteristic products identified in the Namibian TSA fall under accommodation, food and beverage serving services, transport and cultural and recreation services.

Tourism connected products are those which comprise 'a residual category including those that have been identified as tourism specific in a given country, but for which this attribute has not been acknowledged on a world-wide basis' (UN et al., 2000:35). In the Namibian TSAs, only handicrafts are considered to be tourism connected products. Though the information for this product is not derived from the national accounts—production generally takes place in the informal sector, which is, in practice, excluded from the national accounts—visitor expenditure on the product was 4–5 per cent of total expenditure, so it was considered sufficiently important for inclusion in this study.

The combination of tourism characteristic and tourism connected goods and services (theoretically) comprise all tourism specific products.

The final, but usually small, category is tourism non-specific products—goods and services that make up only a very small percentage of tourism demand, and/or where only a very small proportion of total output is supplied to visitors (e.g. postal services and telecommunications, shopping for consumer durables, etc.).

In order to determine output that can be directly attributed to tourism, 'tourism ratios' must be derived. Tourism ratios identify how much of the total output of each industry can be attributed directly to tourist expenditure, given that most industries products are consumed by both tourists and non-tourists.

The Namibian TSA consists of six tables, presented for 1991, 1992 and 1996—tourist numbers and foreign tourist profiles; tourism output by product; visitor expenditure by product; a comparison of tourism output and expenditure; tourism gross value added and tourism industry employment and compensation (this final table presents information for 1997).

The first table simply outlines the total number of visitors each year—and for foreign arrivals provides detailed information regarding country of origin and purpose of visit.

Tourism output (Table 3) is derived by applying the tourism ratios to the total output of each tourism product identified earlier (tourism characteristic, connected and non-specific); the total output of each of these products is drawn from the national accounts.

The visitor expenditure table presents information on the proportions and dollar amounts spent by visitors on each product, and is also compared with the production information in Table 5, to determine how close the two sides of the accounts are. (As mentioned earlier, these should theoretically be equal.)

Tourism gross value added is also derived directly from the national accounts by applying the tourism ratios to the value added of each of the tourism products.

The tourism ratios are also used in the tourism employment and compensation tables, by applying the ratios to total employment in each industry; and to the 'employment compensation' category of value added from the national accounts to determine remuneration.

2.2 Data sources

A number of comprehensive and detailed data sources should ideally be available for use when building a set of TSAs. The major source of information for satellite accounts is the national accounts. In

addition to this, a number of different surveys should be conducted prior to construction of the TSAs. Information regarding foreign visitor behaviour and expenditure patterns is best derived from Visitor Surveys, usually conducted by interviewing a sample of foreign arrivals at major border posts. In order to determine domestic tourism behaviour and expenditure patterns, household surveys should also be conducted.

Surveys of those involved in the tourism industry should also be carried out—with the major objective of such a survey being to determine accurate tourism ratios for all tourism product producers within the country. This survey could also be used as the basis for the tourism capital formation table.

A labour survey is also necessary to determine total numbers employed within different sectors of the industry, as well as remuneration for the construction of the tourism employment and remuneration table.

As a minimum for the construction of a basic set of TSAs, reliable national accounts and visitor survey data must be available; other information can often be estimated or 'borrowed' from accounts developed in other countries.

The main source of data used to construct the production side of the Namibian accounts was the national accounts for Namibia for 1991, 1992 and 1996. For each of the products identified as contributing to the tourism industry, total output, value added and employee remuneration was drawn out of the national accounts for each year and multiplied by the appropriate tourism ratio to construct the tourism output, tourism gross value added tables and part of the tourism industry employment and remuneration table.

The information regarding handicraft output and tourism ratios is not drawn from the national accounts—as production takes place mainly in the informal sector, it is excluded from the national accounts. However, it has been included because it makes up approximately five per cent of visitor expenditure. The production information presented here was sourced from interviews with one of the largest handicraft retailers in Namibia.

There is currently no data available to calculate tourism ratios for Namibia, so of all the countries that have compiled TSAs, it was decided that the Australian tourism industry was most similar to that in Namibia. Thus, the tourism ratios used here are those from the Australian TSAs. When compared with tourism ratios for New Zealand (NZ) and the United States (USA), the similarities for each category of tourism product are notable. For accommodation services, the range is between 81 and 94 per cent in the USA and NZ respectively; for eating and drinking places (combined) the ratio in the USA is 20 per cent and 31 per cent in NZ; long distance passenger transport ranges from a low of 88 per cent in NZ to almost 100 per cent in the USA; for motor vehicle hire the tourism ratios ranged from 58 to 61 per cent for the USA and NZ respectively; while for cultural and recreation activities the range was 24 to 35 per cent for each country. For tourism related products, only six and eight per cent of output was attributable to tourism in the USA and NZ respectively.

For the tourist expenditure side of the accounts, the major sources of data were the visitor surveys of 1992 and 1996 conducted by the Policy Planning and Management Information Unit (PPMIU) of the Ministry of Environment and Tourism (MET) (Hoff and Overgaard, 1993; PPMIU, 1997) as well as foreign arrivals figures for these years, also published by PPMIU (PPMIU, 1991; 1992; 1996). Given that only two visitor surveys that have been conducted in Namibia since Independence in 1990, the availability of such data was the factor limiting the construction of the accounts to these three years. The first visitor survey was conducted in 1991, but the figures published were in 1992 prices. They have been deflated to 1991 prices in order to report both years. Such surveys collect a variety of information about foreign visitor behaviour by conducting in-depth interviews with visitors arriving at

various border posts. Their use in constructing TSAs stems from the data gathered on total tourism expenditure per stay and the distribution of this expenditure, as well as the profiles of foreign arrivals in terms of country of origin, purpose of visit, etc.

The Hoff and Overgaard report also conducted a Tourism Establishment Survey to determine both turnover/value added and employment within the tourism industry. Though the response rate to this survey was less than satisfactory, it did provide some information that had not previously been available. The study also assessed the potential for tourism development within Namibia and its environmental implications (though this information was not used in the construction of these accounts).

Other reports were used to make assumptions about domestic tourism (tourism within Namibia made by Namibian residents and citizens) including Barnes et al. (1999), Humavindu and Shuuya (1998) and Jenkins (1997).

The only data relating to employment in Namibia is currently unpublished data from the Ministry of Labour, and is available only for 1997. Unfortunately, there was no data regarding employee compensation collected in this survey. The information presented in Table 9 regarding remuneration is drawn from the national accounts of 1997.

3. RESULTS

3.1 Limitations of the data

The national accounts used for the compilation of these TSAs were found to severely underestimate, or neglect altogether, almost every tourism commodity identified as important to tourism in Namibia. In other commodity categories, it was difficult to disaggregate the tourism component of a commodity. For specific information on the limitations of the data used in the construction of these accounts, see Table 1.

As mentioned above, the compilation of TSAs can be done in stages, so only those tables for which there is sufficient information have been constructed to date. There are a number of omissions—notably those outlining collective consumption and gross capital acquisition and stock. Additionally, many of the details that would be desirable in those tables that have been constructed are not presented, due to the limited amount of information that is currently available.

Table 1: Limitations of the data used to construct the Namibian TSAs

Production data	Accommodation Only private provision of accommodation can be drawn from the National Accounts, though government provision was substantial at the time (accommodation provision in National Parks and protected areas was almost exclusively government owned—municipal and central government provision was estimated at 30 per cent of the market in 1991/2). Private provision also underestimated as a result of the exclusion of 'illegal' establishments. Food and beverage service services The basis of restaurant output reported in the national accounts is the Tourism Establishment Survey conducted in 1991. Output reported for subsequent years is based on estimates of the growth of the industry (half the volume index used to estimate the growth of the accommodation sector), rather than new survey figures; this growth is anecdotally said to be consistently underestimated. Transport/ passenger services/ road, rail National accounts data for both these categories acknowledged to be underestimated. The calculation formula is based on output figures for the parastatal provider of these services plus only 20 per cent for private production—the majority of road passenger services are offered by private providers. Transport/ transport equipment Road and rail are also based on the formula of parastatal production plus 20 per cent, and both are also severely underestimated. Car rental is completely excluded from this calculation by the national accounts, despite approximately 36 per cent of interviewees in 1996 having rented vehicles during their stay in Namibia. Travel agencies, operators and guides This category is probably the most severely underestimated (once again estimated using parastatal provision plus 20 per cent) because excludes the large and increasing numbers of private providers of travel agency and tour operator services. According to the 1996 visitor survey, 47 per cent of respondents at the major international airport used a pre-paid package activity. Cultural and recreational services Problems associated with this product relate particularly to 1991 and 1992—it is impossible to separate tourism from non-tourism production for this product in these years. However, the classification changed by 1996 meaning disaggregation was possible. Other tourism related industries There is potential for error as group of products have enormous total production though only a small proportion of this is tourism production.
Expenditure data	Visitor Survey questions regarding visitor expenditure distributions changed between 1991/2 and 1996, with the addition of the category 'entertainment' in 1996 (included under 'cultural and recreation services here).
Employment and earnings data	Employment data are only available for 1997. No data exists regarding employment or remuneration in the handicraft industry. No compensation data was collected by the 1997 labour survey, data reported Table 9 is drawn from the 1997 national accounts.
Tourism ratios	No tourism ratios for Namibia were available; Australian tourism ratios were applied in the Namibian context. One of the most serious limitations of such ratios is that they are assumed to be constant over time, which is unlikely in practice. In addition, some of the Australian ratios seriously underestimate the proportion of tourism output for some products, e.g. restaurants (see discussion regarding Table 6).

3.2 Namibia's preliminary TSAs

The tables of the preliminary TSAs are presented below. Table 2 shows tourist numbers and foreign visitor profiles, and Table 3 is tourism output by commodity ($N million)[1]. Table 4 is visitor consumption by commodity (N$ million), with a comparison of tourism supply and demand by commodity shown in Table 5. Table 7 reports tourism gross value added and Table 9 shows tourism employment and remuneration for 1997. All tables are in current prices, unless otherwise stated.

Table 2: Namibian tourist numbers and foreign visitor profiles

	1991	1992	1996
Visitor arrivals	213,000	250,722	419,502
Domestic tourists	91,286	107,452	179,787
Total tourists	304,286	358,174	599,289

	1991/2 (%)				Total Visitors	
	Holiday	Business	VFR	Other	1991	1992
South Africa	70	15	14	1	134,190	157,955
Other Africa	66	19	6	9	17,040	20,058
Germany	86	5	9	0	29,820	35,101
UK	77	6	9	8	10,650	12,536
Other Europe	72	11	1	16	14,910	17,551
Other	61	28	11	0	6,390	7,522

	1996 (%)				Total Visitors
	Holiday	Business	VFR	Other	
South Africa	66	14	19	1	197,166
Other Africa	66	18	15	1	41,950
Germany	91	2	6	1	100,680
UK	77	10	12	1	4,195
Other Europe	89	4	6	1	54,535
Other	84	10	4	2	20,975

[1] Exchange rate for 1991: $US1 = N$2.77; for 1992 $US1 = N$2.86; for 1996 $US1 = $N4.33 (BoN, no date).

Table 3: Tourism output by product (N$ millions)[1]

Industry	Tourism ratios*	1991	1992	1996	% of total output**
Accommodation					
Hotel and other lodging services	0.96	144	187	341	47
Food and beverage serving services					
Restaurants	0.30	21	26	41	6
Transport	0.88	134	153	271	38
Passenger services					
Rail	0.88	4	4	4	0.5
Road	0.88	4	4	4	0.5
Air	0.88	112	130	231	32
Transport Equipment					
Rail	0.88	2	2	1	0
Road	-	-	-	-	-
Rental	-	-	-	-	-
Air	0.88	3	5	20	3
Travel agencies, operators & guides	0.97	9	9	13	2
Cultural and recreation services	0.27	67	80	49	7
Handicrafts	0.90	8	9	17	2
Other tourism related industries	0.01	2	2	4	1
TOTAL		**376**	**458**	**722**	

1 Exchange rate for 1991: $US1 = N$2.77; 1992 $US1 = N$2.86; 1996 $US1 = $N4.33 (BoN, no date).

* Tourism ratios identify the proportion of total output that can be directly attributable to tourist expenditures. As there are no ratios derived for Namibia, these are taken from the Australian Tourism Satellite Accounts.

** This may not equal 100 due to rounding errors.

It can be seen from these tables that the tourism industry grew substantially between 1991 and 1996. In this time, tourism output grew an average of 14 per cent per annum, substantially higher than growth rates in the rest of the economy. This is, by apparent coincidence, exactly consistent with the growth in foreign tourist arrivals—the number of foreign arrivals also grew on average 14 per cent per annum between 1991 and 1996. Average trip length over the same period remained virtually unchanged (increasing from 11.8 days to 12 days), though given the drop in the proportion of South African visitors and the increase in the proportion of German visitors, it might have been expected that output would have increased more quickly than total visitor numbers (German tourists tend to have considerably higher average trip expenditures than South African tourists). The greatest contribution to tourism output came from hotels and other lodging (38–47 per cent of total output) followed by

passenger air services (28–32 per cent) and then cultural and recreational services (between 7–18 per cent of total tourism output over the three years). The relative importance of these commodities broadly confirms expectations—though restaurants may have been expected to provide a larger proportion of total tourism output. (Expectations regarding restaurant output are discussed in greater detail below.) Ideally, the accounts should also provide information disaggregating tourism output into that produced domestically and that imported, but such data is not yet available in Namibia.

Table 4: Visitor expenditure by product (N$ million)

		1991	1992	1996	
Industry	**Expenditure distribution for 1991/92**	**Tourist expenditure**	**Tourist expenditure**	**Expenditure distribution**	**Tourist expenditure**
Accommodation					
Hotel and other lodging services	0.42	135	151	0.26	310
Food and beverage serving services					
Restaurants	0.13	42	47	0.13	152
Transport					
Passenger services					
Rail	-	-	-	-	-
Road	-	-	-	-	-
Air	0.02	6	6	0.07	87
Transport Equipment					
Rail	-	-	-	-	-
Road	-	-	-	-	-
Rental	0.16	53	59	0.12	140
Air	-	-	-	-	-
Travel agencies, operators & guides	0.1	31	35	0.08	90
Cultural and recreation services	nr	nr	nr	0.07	87
Handicrafts	0.05	16	18	0.04	45
Other tourism related industries	0.07	41	46	0.11	268
TOTAL		324	363	0.99	1,179

nr not reported

Tourism consumption also grew rapidly during this time—an average of 30 per cent growth each year in nominal terms. Thus, in real terms, consumption will have grown by between 15 and 20 per cent per annum during this period. This growth can be attributed not only to an increase in the number of foreign arrivals (and, by assumption, domestic tourism as well), but also the result of an increase in average trip expenditures for both domestic and foreign visitors.

The expenditure distributions for 1991/2 are from the same visitor survey and so are the same; but the relative proportions of some categories changed quite significantly by 1996. The 1996 survey had an

additional category in the expenditure distribution ('entertainment' reported here as 'cultural and recreation services'). While 'hotels and other lodging services' is the largest component of visitor consumption in all three years, the proportion spent on this item dropped from 42 to 26 per cent—such an enormous reduction remains unexplained (except perhaps by the increasing accuracy of survey data). In 1991 and 1992, the second most important consumption commodity is car rental followed by restaurants. In 1996, this order is changed, with restaurants the second most important consumption commodity followed by car rentals and personal consumption (i.e. shopping), each with 12 per cent of total tourist consumption.

Given that different countries tend to classify their tourism products slightly differently, it is difficult to compare expenditure distributions between countries. However, with the exception of accommodation—which is proportionally far higher in Namibia than elsewhere—other product categories appear to fall broadly in line with the expenditure distributions of tourists elsewhere in the world.

Table 5: Comparison of tourism output and expenditure by product (N$ million)

	1991		1992		1996	
Industry	**Expenditure**	**Tourism output**	**Expenditure**	**Tourism output**	**Expenditure**	**Tourism output**
Accommodation						
Hotel and other lodging services	135	144	151	187	310	341
Food and beverage serving services						
Restaurants	42	21	47	26	152	41
Transport	90	134	100	154	316	272
Passenger services						
Rail	-	4	-	4	-	4
Road	-	4	-	4	-	4
Air	6	112	6	130	87	231
Transport Equipment						
Rail	-	2	-	2	-	1
Road	-	-	-	-	-	-
Rental	53	-	59	-	140	-
Air	-	3	-	5	-	20
Travel agencies, operators & guides	31	9	35	9	90	13
Cultural and recreation services	nr	67	nr	80	87	49
Handicrafts	16	8	18	9	45	17
Other tourism related industries	41	2	46	2	268	4
TOTAL	**324**	**376**	**363**	**459**	**1,179**	**724**

Tourism supply and expenditure are compared in Table 5. According to accounting principles, these two should be equal, though in practice, this equality is virtually impossible to achieve. There are a

number of probable reasons for this lack of equality. As can be seen from this table, not all commodities have information available on both the supply and demand side (particularly for those products that fall under 'transport' and 'other tourism related industries'). Supply exceeds expenditure for this category of commodities which is largely explained by the availability of more data on the supply side.

The lack of tourism ratios calculated for Namibia can also help to explain the inequality between supply and expenditure. As mentioned in Section 2.1, the tourism ratios used in this study were taken from the Australian 1997/8 TSAs (ABS, 2000). The sensitivity of the Namibian data to changes to these ratios is quite high—particularly for those commodities that the Australian tourism ratio is assumed to underestimate. For instance, the tourism ratio for restaurants in Australia is 30 per cent—which in the Namibian context is likely to be severely underestimated. Anecdotal evidence suggests that the ratio should be closer to 70 per cent. In addition to this, the national accounts are acknowledged to under-report the growth in output of this commodity—they estimate the growth of the restaurant sector to be only half that of the volume index for the accommodation sector (these sectors national accounts figures are based on estimates of growth rather than annual surveys to establish actual turnover and value added). If these assumptions are changed, the tourism output for the restaurant sector can be recalculated with the results shown in Table 6, where supply and expenditure come closer to equality under the assumptions of a tourism ratio of 0.7 and a growth index equal to that of the accommodation sector.

Table 6: Recalculated restaurant output

Tourism ratio	Growth rate*	Tourism restaurant output		
		1991	1992	1996
0.3	0.5	21	26	41
0.3	1.0	21	27	51
0.7	0.5	49	61	96
0.7	1.0	49	64	119
Tourist expenditures		**42**	**47**	**152**

* as a proportion of accommodation volume index

Another important reason for the disparity between supply and demand relates to other flaws in the national accounts data, as outlined in detail in Table 1.

Table 7: Tourism gross value added by product (N$ million)

	1991			1992			1996		
Industry	**Tourism output**	**Intermediate Consumption**	**Tourism Gross Value Added**	**Tourism output**	**Intermediate Consumption**	**Tourism Gross Value Added**	**Tourism output**	**Intermediate Consumption**	**Tourism Gross Value Added**
Accommodation									
Hotel and other lodging services	144	73	71	187	81	107	341	170	171
Food and beverage serving services									
Restaurants	21	13	8	26	14	12	41	29	12
Transport	134	92	43	153	98	55	271	163	108
Passenger services									
Rail	4	-	-	4	-	-	4	-	-
Road	4	-	-	4	-	-	4	-	-
Air	112	-	-	130	-	-	231	-	-
Transport Equipment									
Rail	2	-	-	2	-	-	1	-	-
Road	-	-	-	-	-	-	-	-	-
Rental	-	-	-	-	-	-	-	-	-
Air	-	-	-	-	-	-	-	-	-
Travel agencies, operators & guides	9	-	-	9	-	-	13	-	-
Cultural and recreation services	67	33	33	80	40	40	49	24	24
Handicrafts	8	n/a	n/a	9	n/a	n/a	17	n/a	n/a
Other tourism related industries	2	0	1	2	0	1	4	2	3
TOTAL	376	212	156	458	234	215	722	388	318

n/a not available

Gross value added is reported in Table 7. Value added is derived from the national accounts, based on the assumption that the structure of the tourism component of any industry is the same as the non-tourism component (thus the tourism ratio can be applied to the total commodity value added to derive tourism value added for each commodity). This table shows the value of production, and also indicates a substantial increase in the value of the tourism industry over time. The commodity that produces the highest value added for tourism is hotels and other lodging, contributing 46–54 per cent of total tourism valued added, followed by transport with 26–34 per cent (this category includes all transport commodities).

Table 8 shows the proportion of GDP at market prices that can be attributed to tourism in the relevant years. Given the underestimates present in the output of a number of these tourism products, it can be assumed that actual tourism gross value added is substantially higher than reported here—which would significantly increase the contribution to GDP of the tourism industry. While the figures reported in Table 8 are lower than expected, the tourism industry does rank third in terms of exports, which does justify some of the optimism surrounding the activities of the industry.

Table 8: Tourism direct contribution to Gross Domestic Product

	1991	**1992**	**1996**
Tourism gross value added (N$ million)	156	215	318
Gross Domestic Product (N$ million; at market prices)	7,119	8,358	13,712
Tourism direct contribution to GDP (%)	2.19	2.57	2.32

Tourism employment and remuneration in 1997 is shown in Table 9, and indicates that that estimated employment in the tourism industry accounts for almost three per cent of employment in Namibia. This is also somewhat lower than expected, but with the growth in the industry is likely to have increased significantly since 1997.

Table 9: Tourism industry employment and remuneration, 1997

Industry	1997 Total	Females	Males	Compensation ($N millions)
Accommodation				
Hotel and other lodging services	2,151	1,162	990	80
Food and beverage serving services				
Restaurants	224	121	103	10
Transport	5,317	639	4,679	313
Passenger services				
Rail	106	13	93	53
Road	53	6	47	31
Air	4,467	536	3,931	70
Transport Equipment				
Rail	53	6	47	17
Road	-	-	-	-
Rental	-	-	-	-
Air	266	32	235	4
Travel agencies, operators & guides	411	49	361	139
Cultural and recreation services	1,545	742	803	22
Handicrafts	n/a	n/a	n/a	n/a
Other tourism related industries	39	5	34	1
TOTAL	9,316	2,671	6,645	427

n/a not available

4. RECOMMENDATIONS TO IMPROVE DATA QUALITY AND QUANTITY

It is planned that these accounts will be updated during 2002, but before this can take place, a number of recommendations need to be acted upon. Most importantly, the quality and quantity of data collection needs to be improved. It is recognised that these accounts have been compiled using available data, which is not comprehensive—on either the supply or demand sides. A number of gaps in collection and/or collation of national accounts data have been identified, and these lessons will be shared with the Central Statistics Office (responsible for compiling the national accounts), so the quality of data can be expected to improve over time.

In addition, another visitor survey is urgently required before these accounts can be updated. A survey is tentatively planned for early 2002, which, if designed carefully should improve the information regarding foreign visitors and their behaviour. Unfortunately, such surveys do not capture information regarding domestic tourists, which is best done within the context of a household survey. There are no plans for a Namibian household survey in the short-term, so it will be necessary to conduct a smaller survey of domestic tourists at prime tourist destinations in Namibia. Such a survey—given the dearth of data currently available—would improve understanding of domestic tourist behaviour and expenditure patterns enormously.

Continued collaboration with those involved directly in the tourism industry will also be useful. Links with relevant trade associations, and information gained through these links, would be useful in confirming already available data and providing information that is not currently available. Such links should also be fostered by the national accounting office to assist in the compilation of more comprehensive and frequently updated data for the industries covered by tourism trade associations.

Efforts to meet all three recommendations are already underway, and it is hoped that Namibia will be able to update and expand these accounts towards the end of 2002 so that more recent and reliable figures, which are crucial to the effective and efficient planning of the tourism industry, are available to those involved in the tourism industry in both the public and private sectors.

5. IMPACT ON POLICY

As mentioned above, the most significant use of the TSAs is to provide an indication of the relative size and importance of tourism as a contributor to the national economy compared to other industries in the economy (using traditional national accounts industry classifications). The use of this preliminary set of accounts for such purposes is limited, due largely to problems with the quality and quantity of the data used for constructing these accounts.

A comprehensive set of accounts should also provide information regarding linkages within, and leakage from the tourism economy. This will enable models to be built that can predict the impacts of changes within the tourism industry, as well as the impacts of policy changes on the sector. The availability of such data should also feed into the construction of broader, macro-economic models and databases, such as input–output tables and social accounting matrices.

Ideally, the availability of data following the 2002 update will enable the construction of regional (within Namibia) tourism satellite accounts for improved policy planning at regional level. To ensure that planning at all levels—local, regional and national—is effective, the vast range of government policy and legislation that impacts upon tourism needs to be considered. This range includes employment and labour laws, investment rules and incentives (particularly those relating to foreign investment), tax collection and revenue raising by the government (and subsequent spending of this revenue), education and training, environment and natural resource use and protected area policies as well as those relating specifically to tourism. When assessing the use of TSAs in making changes and/or additions to government policy, the limitations of these preliminary accounts should be remembered. It is hoped that the 2002 update will provide a significantly more reliable and comprehensive set of accounts, from which such conclusions could be drawn

Policy and legislation encompassing all these issues at all levels of government in Namibia should provide a conducive and stable policy environment, which should in turn attract investment into the industry. This is vital to ensure the continued growth and economic contribution of the industry, particularly in light of its potential to stimulate economic growth and diversification, as well as job creation and productivity improvements.

6. CONCLUSIONS

The results presented above suggest that the tourism industry is relatively less important than is widely reported, domestically and internationally, considerably lower than the World Travel and Tourism Council (WTTC) estimates that suggest the tourism industry (personal travel and tourism) contributed 8.1 per cent to GDP in 1996 (WTTC, 1999). The difference between this estimate and that from the Namibian TSAs is likely to result from differences in methodology (and possible differences in base data)—the methods and assumptions used by the WTTC are applicable generally, rather than to Namibia specifically. The most likely case is that real tourism contributions to GDP fall between the two estimates. This argument can also be extended to tourism employment, where the above results suggest almost three per cent of total employment is in the tourism industry, compared with WTTC estimates of just over five per cent (WTTC, 1999).

There is much evidence to suggest that the tourism industry has continued to grow rapidly (and at a faster rate than the economy as a whole) since 1996, which would lead to expectations of an improvement in the relative size and importance of the industry within the Namibian economy. The

planned update of the accounts should enable the confirmation of these expectations. However, it must be recognised that though the contribution of the industry to total GDP may have increased, high leakage levels will remain due to Namibia's high import dependency. Further research is also required to determine the extent to which those imports currently used to support the tourism industry could be produced domestically.

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