ECONOMIC IMPACT OF INTERNATIONAL YACHTING IN FIJI

Australian Aid

MDF Market Development Facility

PORTDENARAUMAR

VUDA MARINA FIJI

AMSTEC

MDF is supported by the Australian government and implemented by Palladium, in partnership with Swisscontact.

Acknowledgements

The *Economic Impact of International Yachting in Fiji* report has been produced in collaboration between AMSTEC Pty Limited, Port Denarau Marina, Vuda Marina and the Fiji Office of Market Development Facility.

We are grateful to the many stakeholders in Fiji's yachting industry and the government agencies in Fiji, particularly the Fiji Revenue Customs Services, for sharing information, advice and experiences throughout the preparation of this report.

Finally, our sincere gratitude to Stella Pongsitanan for the layout and graphics and to Amy Faulconbridge for reviewing, editing and managing the production of the paper.

Notations and Limitations

This is a Fiji yachting industry report prepared by AMSTEC Pty limited (AMSTEC), with the assistance of Denarau and Vuda Marinas, and supported by the Market Development Facility (MDF). MDF was implemented by Cardno during Phase I (2011-2017) and Palladium and Swisscontact in Phase II (2017-2022).

It may only be used and relied on by MDF and Partners for the purpose agreed in the terms of reference and as set out in this report. Surveys were conducted between 24 September and 20 October 2018 with additional yacht and superyacht data supplied by Denarau Marina and Fiji Revenue Customs Service (FRCS) in November 2018.

AMSTEC and specialist sub-consultants were responsible for the fieldwork surveys, training of MDF fieldwork staff, research and analysis, preparation of this report and the validation workshops. AMSTEC project lead was Adrian Sammons. Specialist sub-consultants were Rory Garland (design & analysis of surveys/market assessment), and Leo Drynan (economic impact analysis).

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MDF consultant contract reference number: MDF-SC1816

30 November 2018

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EXECUTIVE SUMMARY

Tourism arrivals in Fiji have reached a record high. In 2017, they rose to 842,884 (2016: 792,320), supported strongly by nautical tourism - cruise ships, yachts and super-yachts. While the Fijian government has prioritised the development of nautical tourism, there is still much to be done. Yachting is important to the diversification of Fiji's tourism sector, but the industry is constrained by limited recognition and support.

This is partly due to a government focus on aviation tourism and a lack of evidence-based data to justify its involvement in the yachting industry and the key support services involved. In June 2018, MDF signed a partnership with Fiji's two largest marinas, Port Denarau and Vuda, to undertake the first independent economic impact assessment on Fiji's yachting industry. The assessment provides a comprehensive picture of the industry's economic contribution, including direct and indirect employment creation; micro, small and medium sized enterprise opportunities; and local economic development.

The findings of the report reveal that the yachting and the related support industries contribute a total of FJ$60.6 million to the Fijian economy each year. It is also one of the highest yielding tourism segments with an average spending of F$7,808 per person.

Although yachting arrival numbers are modest in comparison to cruise tourism, the 4,473 yachties that arrived in 2018 spent a total of F$34.9m on fuel, maintenance, dockage, food provisioning, restaurants and a range of other tourism activities. Economic benefits through yachting have also spread to remote communities that yachties travel to during their stay in Fiji.

The yachting industry assessment report provides a baseline and demonstrates the potential of the industry to become a key driver of foreign exchange and contributor to future tourism growth in the country. It is therefore crucial to develop the yachting industry and enhance its competitiveness, and this will require concerted efforts between government, the yachting industry, businesses, local communities, resource owners, and other key players.

The report recommends initiatives to support growth of the yachting industry in Fiji, including:

- Strategic and differentiated initiatives for developing the yacht and superyacht segments that focus on supporting growth, competitiveness and increasing market share;
- Incorporation of yachting tourism statistics in national tourism accounts to better track economic contribution and growth;
- Improved Government regulations and processes; and
- Establishment of a Fiji Marina Industry Group to improve national representation, engagement and drive future initiatives.

It is hoped that through the findings and recommendations of this report that national tourism industry stakeholders, including the Fijian government will take a deliberate decision to renew their commitment to increase opportunities for investment and development of the yachting industry which has demonstrated the capacity to deliver significant economic and social returns which support broad-based, inclusive and sustainable economic growth.

Yacht and superyacht surveys
October 2018

This is the first independent economic assessment of the Fiji international yachting industry that hasbeen conducted. A total of 239 out of 721 visiting yachts completed the surveys which provided a depth of data for baseline analysis. Of the 721 surveyed yachts, 667 were regular yachts, classified as being under 24 meters in length, as well as 55 superyachts being vessels over 24 metres in length.

An excellent survey response rate of 30% was attained which is well above industry standard of 10%. A combination of yacht skipper/owner self-completion surveys and consultant/industry partner facilitated web-based surveys was used.

Superyacht responses were supplemented with data provided by Denarau Marina, the superyacht agents and other sources. Overall the responses were reliable and internally consistent.

This FJD 34.9 million foreign exchange was spent directly into Fiji businesses and communities for

fuel, maintenance, dockage, food provisioning, restaurants, bars as well as cultural visits and a range of other tourism activities.

The majority of international yachts base themselves out of one of Fiji's main yachting centres of Denarau, Vuda, Savusavu or Musket Cove and sail to a number of cruising areas. They are able to regularly return to the yachting centres for fuel, provisioning and guest transfers.

Yachting

Economic Contribution to the Fijian Economy

Yachting makes a substantial contribution to Fiji's economy:

Total economic contribution
FJD 60.6 million
per year

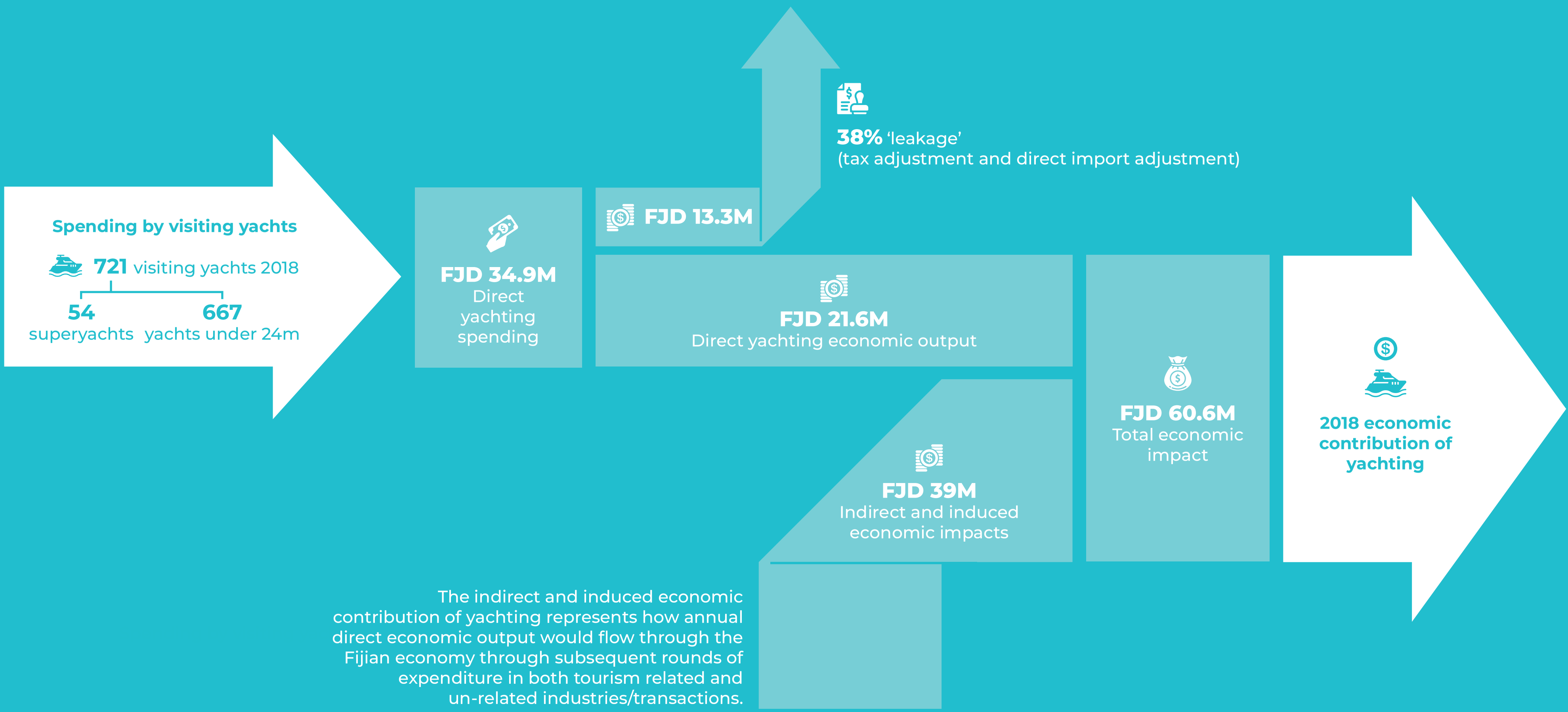
Direct economic contribution of
FJD 21.6 million
per year

4,473
people arrived on yacths

$34.9M
total expenditure

$7,808
average spend per person

Economic Impact **Overview**



The indirect and induced economic contribution of yachting represents how annual direct economic output would flow through the Fijian economy through subsequent rounds of expenditure in both tourism related and un-related industries/transactions.

Yachts and spending whilst in Fiji

An estimated **721 visiting yachts** were in Fiji during 2018. This is made up of 54 superyacht and 667 yachts under 24m.

The visiting yachts brought **1,963 crew** and an additional **2,510 guests** to Fiji (most of whom would have flown in and out while in Fiji).

The average superyacht remained in Fiji for **82 days**, while the average yacht under 24m stayed **137 days**.

Average superyacht spent a total of around FJD 167,000 during their time in Fiji, giving an **overall superyacht direct spend of FJD 9.0 million**.

Each yacht under 24m spent FJD 31,000 while in Fiji, with an **overall direct spend of FJD 20.1 million**

This **FJD 34.9 million foreign exchange** was spent directly into **Fiji businesses** and **communities** for fuel, maintenance, dockage, food provisioning, restaurants, bars as well as cultural visits and a range of other tourism activities.

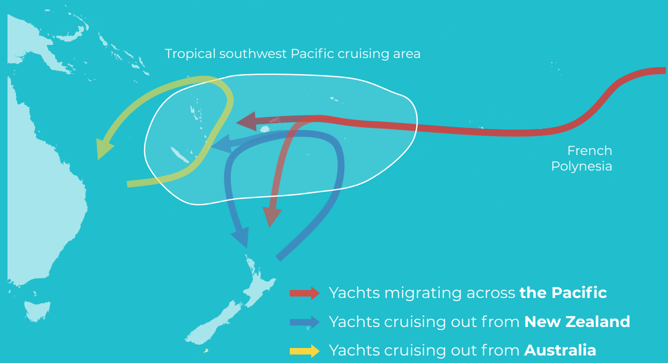
While most of the big spend was focussed on the main yachting centres (Denarau, Vuda, Savusavu), **impacts would also have been spread across many remoter parts of Fiji** visited by yachts.

These are communities that don't usually benefit from general tourism impacts.

International Yacht voyage routes to/from Fiji

Most visiting yachts come from **New Zealand**, **Australia**, **Europe** or **the United States**. They are very much driven by the seasons with numbers dwindling significantly during cyclone season.

There are **three basic migration patterns** which bring yachts to Fiji:

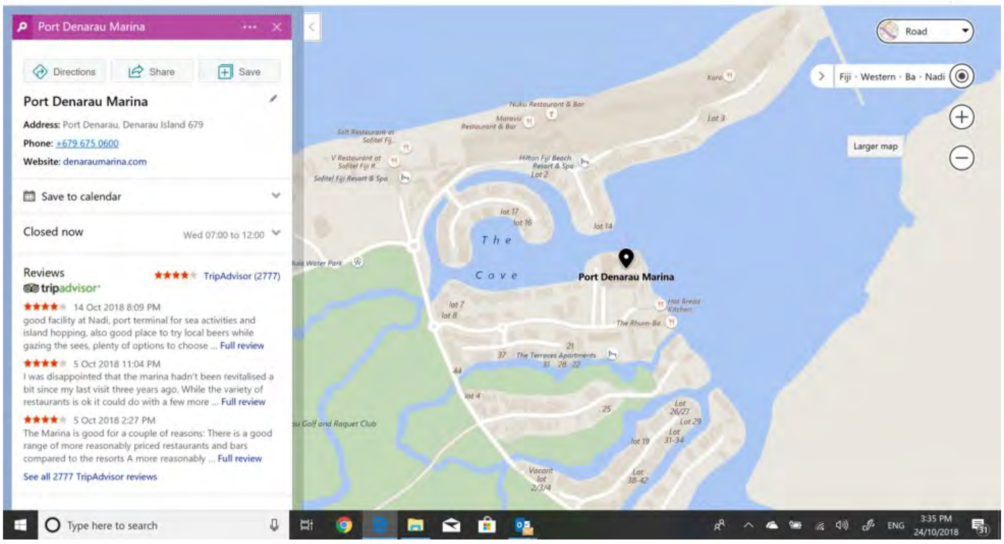


Superyachts have **diverse route patterns** as are less dependent on prevailing weather patterns and largely driven by remote owner's wishes.

The majority of yachts base themselves out of one of the yachting centres and cruise out to a number of cruising areas. They regularly return to the yachting centres for fuel, provisioning and guest transfers.

1 INTRODUCTION

- Yachting Tourism has become an important segment for countries which consider tourism as a means of development due to its environment, national investments, volume of potential business from yachting, employment opportunities created, foreign exchange income, social-economic and socio-cultural impact and an increasing number of policy support incentives for the sector
- The Fiji government has a continued push for increased yachting tourism activities and emphasis on better services for yachting and the establishment of full service marinas in new areas as mentioned in Fiji Tourism 2021 development plan
- Yachting Tourism is a special interest segment of the overarching Marine Tourism, described as "active holidays in contact with the sea"
- Many yachting tourists interact with local people when they visit towns, cultural and historic sights, go shopping and attend social outlets like restaurants, bars and nightclubs etc
- Yachting driven expenditure and economic impact can be more widespread as they access more remote locations and destinations
- The economic impact of yachting from Fiji's leading marinas (Port Denarau and Vuda) has been captured to provide baseline data on the yachting sector's impact on the Fijian economy
- Given the importance of yachting tourism and marinas, there is an opportunity to support further strategic & targeted development of the sector to increase the positive impact in the local economy.



2 OBJECTIVES

Scope of the Study

The Fijian yachting tourism sector is an important and growing sector that touches all aspects of the Fijian economy.

According to the yachting industry, external stakeholders have limited understanding of how the yachting industry works, what it contributes to the economy, and the value of unlocking key constraints. Thus, the yachting industry has identified the need for a comprehensive, robust, and evidence-based report to highlight and explain the importance of the sector and its reach throughout the Fijian economy.

Port Denarau and Vuda Marinas have partnered with MDF and engaged the services of an independent consultant - AMSTEC Pty Ltd to undertake an economic impact study on the yachting segment in Fiji. The output of the study is designed to enable the industry to better quantify its economic contribution of the yachting and marina operations (both direct and indirect) and to identify areas for future growth.

Profile of visiting yachts

- Where from & to
- Types of yacht and crew/guests
- Length of stay in Fiji

How much are visiting yachts spending?

- Spend to Fiji businesses
- Spending on yachts and crew/guests

Objectives of the Study

- Identify and quantify the direct and indirect economic impacts of the yachting tourism in Fiji
- Map the major yachting routes in Fiji and local economic impact in the key areas visited
- Develop a yachting tourism multiplier for Fiji
- Provide a SWOT analysis for yachting tourism in Fiji
- Identify a set of prioritised recommendations to support the growth of yachting tourism in the country.

3 METHODOLOGY

Methodology Process

- The methodology process follows a logical Sequence of:

Market Assessment → Market Potential → Market Intervention

- The Initial yachting tourism sector assessment was designed to capture the key demand & supply characteristics. Activities include desktop research of existing literature, data collection, structured online survey interviews, quantitative survey and analysis
- A Geographic Information System (GIS) platform was used to gain extra insights into data collected by cross referencing with other demographic/spatial data
- Sector assessment outputs were used to determine the total economic impacts of yachting tourism in Fiji
- SWOT analysis was used to identify the potential for growing the value of the yachting tourism market segments and scoping the various risks and barriers
- The final Stage involved working with the industry stakeholders to agree a strategy for the sector to pursue the market potential
- A workshop was hosted to present findings and gather industry and government sector feedback and support.

Source data from all types of visiting yachts

↓

Full assessment of economic impact of visiting yachts in Fiji

↓

Recommendations to support growth of yachting tourism

Data Sourcing from International Yachts

Primary data was sourced using a customised survey designed to provide a picture of 2018 international visiting yachts.

Two online questionnaire surveys were set up

- Yachts under 24m LOA
- Superyachts over 24 m LOA.

Yachts contacted in 3 ways

- Email invitation
- Face to face
- Through superyacht agents.

Key input data obtained from surveys was:

- Profile of visiting yachts
- Profile of Skipper / crew and guests
- Where were yachts from and where were they going next
- Types of yacht
- Length of stay in Fiji
- Locations of stay in Fiji
- How much are visiting yachts spending and on what
- Spend to Fiji businesses
- Spending on yachts and crew.

Data Sourcing from Industry

Relevance:

- How does yachting support each business and how does yachting provide each business with revenue?

Dependency:

- Does yachting represent a major client/sector for each business?
- Percentage of revenue derived from international visiting yachts.

Employment:

- Number of people employed by each firm engaged in supply of services
- Average wage of an employee (estimate p/hr)
- Is work seasonal (are additional staff during busy seasons) – if so how many?
- Location of employees and where staff travel from/to work.

Indirect :

- Is local business used to supply primary business – if so which businesses?
- What are the major operational costs of each business?
- Are any inputs from international business (percentage of suppliers/goods that originate from international suppliers)?
- Is there competition in each identified industry sector?
- Local competition - If so, how many competing businesses?
- Where are you placed in terms of size against your competitors?

General:

- How are the economic conditions – has the local economy been growing / will it continue to grow to support yachting?
- Additional information to clarify the interaction between the suppliers and international visiting yachts.

Yachting Tourism Markets Assessment	Fiji Yacht Industry Assessment
• Segmentation • Volumes • Market segment values • Key attractors • Growth	• Range of services • Key players • Employment • Inputs/outputs

Economic Impacts

- Direct & indirect
- Multiplier
- Employment
- Government revenues

SWOT Analysis

- Market potential
- Regulatory issues
- Competition
- Other barriers

Market Growth Achievement

- Industry development
- Legislation/regulation
- Infrastructure
- Promotion

Specification of Survey – Survey Overview

Survey Overview

Data Collection and Analysis was the most significant activity of the study.

Objectives for the yacht survey:

- To provide a sufficiently complete and reliable dataset to be able to estimate the total spending by visiting yachts during 2018
- To provide the basis for segmentation and quantification of the yacht tourism market.

The information required to meet the objectives:

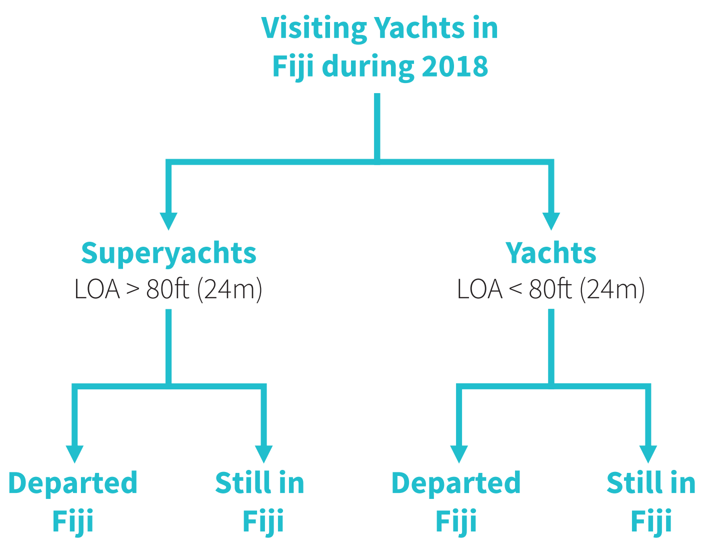
- Characteristics of yacht, crew and guests that visit yachts while in Fiji
- Details of the yacht's voyage in the Pacific and within Fiji in 2018
- Spending on the needs of the yacht while in Fiji in 2018
- Spending on and by the crew while in Fiji in 2018
- Attitudes of the Fiji yachting experience.

The yacht tourism market was split into two groups to be targeted with questionnaire surveys:

- "Superyachts" – Length Over-All (LOA) 24m (80ft) and more
- "Yachts" – LOA under 24m (80ft).

The scope for the study allowed 3 weeks for data collection during October 2018.

Three methods of fieldwork were used.



	Superyachts: Departed Fiji	Superyachts: Still in Fiji	Yachts: Departed Fiji	Yachts: Still in Fiji
1. Face to face interviews		x		x
2. Online (via email)	x	x	x	x
3. Through SY agents	x			

Specification of Survey – Target Population

Target population

The Fiji Yachting study is focussed on the economic impacts of yachting tourism. The target population for the survey is therefore yachts that are (or were) in Fiji for tourism purposes during 2018.

The primary unit of measurement in the survey was 'yachts' (represented by captains). This was seen as simpler than attempting to survey individual owners, captains, crew and guests.

The yachts of interest are those whose spending while in Fiji is foreign exchange.

This target population will predominantly be made up of foreign owned vessels with varying lengths of stay.

There are also a small number of foreign owned, imported yachts which are effectively permanently in Fiji (and maybe Fiji flagged). These are not included in the target population as it would be impossible to differentiate those owners or captains which use foreign exchange.

Population measurement

It has been estimated* that somewhere between 500 and 760 visiting yachts and superyachts are in Fiji each year. It is not clear what population definition these numbers reflect.

Population data is available primarily from two sources:

- Fiji Revenue and Customs Service (FRCS) records of yachts clearing into Fiji
- Records of yachts berthing, mooring or using services at any of the major yachting centres in Fiji.

Neither of these sources will provide a definitive quantum of the total target population, so estimates have been made on the best available information.

Yachts in Fiji

- **Fiji owned yachts**
- **Foreign owned Superyachts (over 24m)**
  all of which arrive and depart in the same year
- **Foreign owned Yachts (under 24m)**
  - **Transient Yachts**
    Arrive and depart in same year
  - **Medium-stay Yachts**
    18 Months in Fiji and then leave permanently
  - **Long-stay**
    Depart and return every 18 months over several years
  - **Semi-permanent**
    Yacht imported into Fiji customs area

*Fiji International Yachting Visitors Survey, Denarau Marina, 2010 to 2017

Specification of Survey – Questionnaire

Questionnaire design

Different questionnaires were designed for the Yacht and Superyacht surveys.

- Yacht respondents were asked for more detail about the range of spending on the yacht and by crew. The questionnaire reflected the fact that these yachts are generally owner operated and guests are invited, rather than paying
- Superyacht respondents were asked about spending on the known cost items of superyacht operation. Superyachts are generally operated by a professional captain and crew for either charter purposes, or owner/guest visits

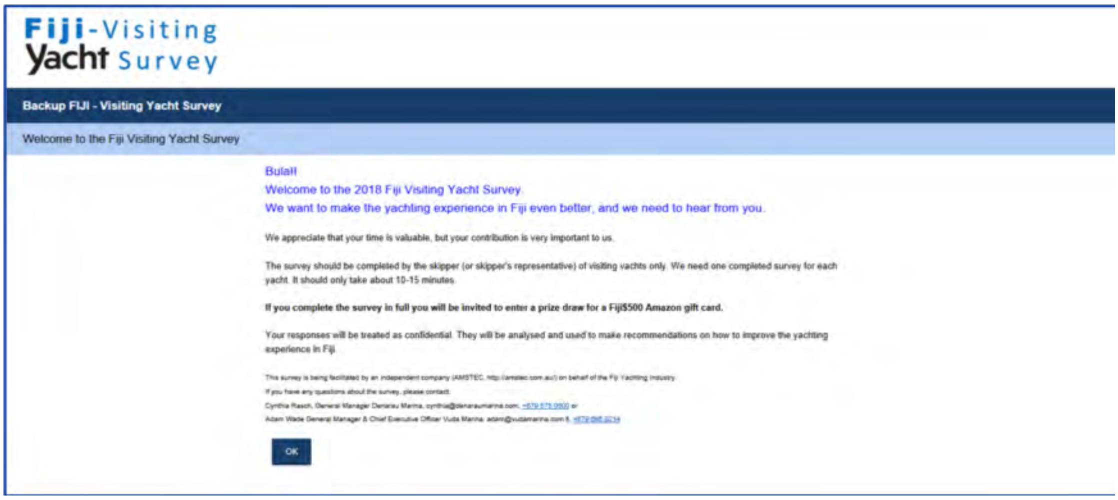
Both questionnaires were targeted at captains or captain's representatives. Crew and guests were disqualified.

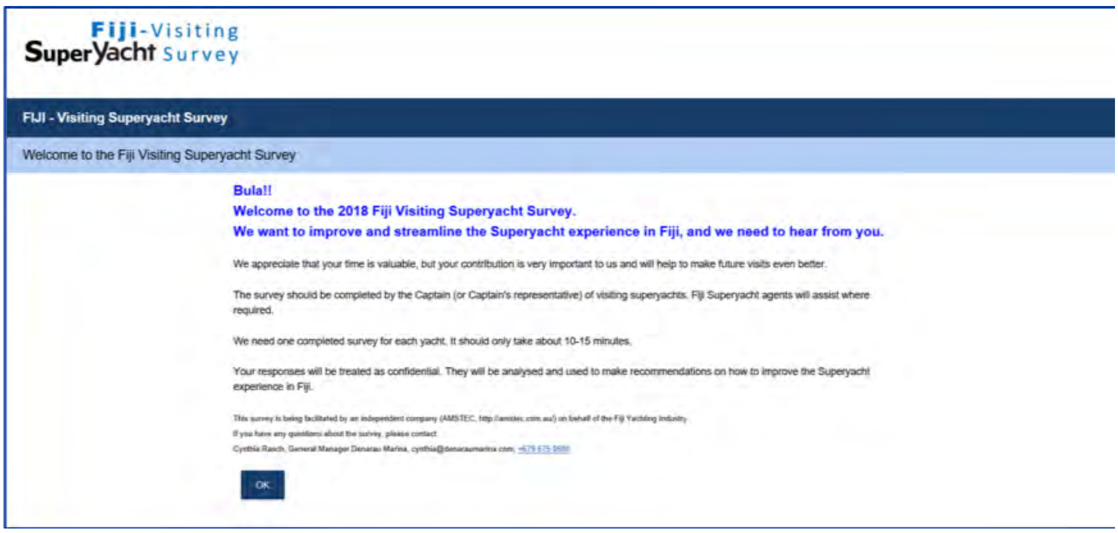
Collector control was managed to ensure that there was only one respondent per yacht.

A limited number of face to face interviews were carried out by the survey designers to observe the level of comprehension by respondents. This also provided an opportunity to gain additional insights into the characteristics and preferences of yacht captains.

Respondent incentives

The opportunity to enter a prize draw was included in the Yacht survey to encourage respondents to complete the survey. Monitoring controls of responses were put in place to ensure that only genuine responses were included.





Fieldwork – The Yacht Survey (Under 24m)

Yachts visiting Fiji will almost certainly visit one (or more) of the main yachting centres. These centres provide them with opportunities for inward/outward clearance, fuel, provisioning, marina berthing, maintenance and repairs.

Yachts visiting these centres will be registered by marina administration. This provides the best source of contacts for most yachts currently in Fiji and those that have already departed.

Self-completion online survey

A database of email contacts of yachts visiting each of the main yachting centres was compiled. These were filtered to only include 2018 visits by international yachts.

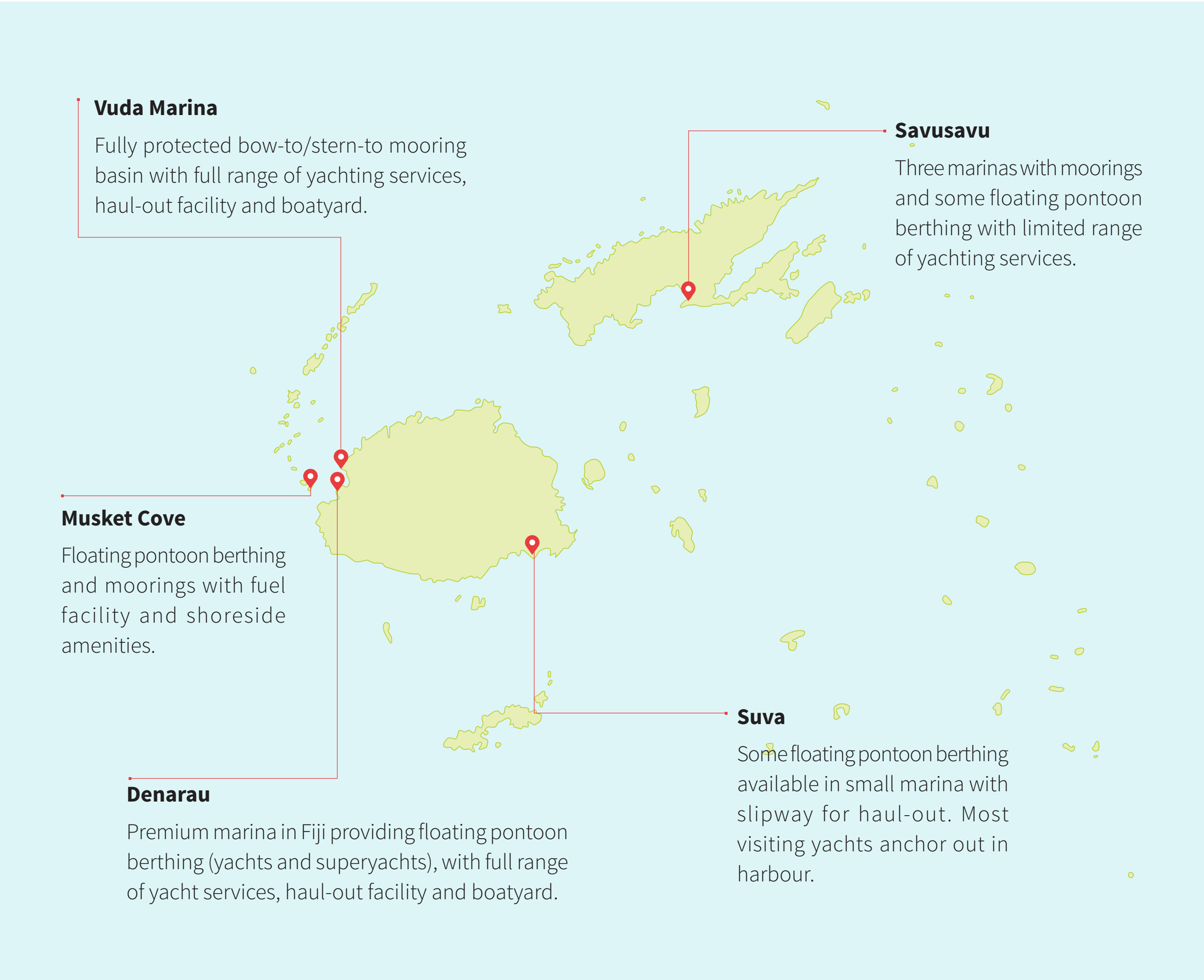
A mailshot was sent out by Denarau Marina General Manager with invitation to take part. A unique (single-use) link to the online survey was included within each email.

Face-to-face interviews

Vuda and Denarau Marinas were provided with multi-use survey links to be used by appointed staff to carry out interviews.

A fieldwork team of 3 interviewers from MDF were also provided with multi-use survey links. They were trained by the AMSTEC project team and visited Vuda Marina, Denarau and Musket Cove.

The AMSTEC project team also carried out face-to-face interviews at each of the yachting centres except Suva (where there were no visiting yachts at the time).



Fieldwork - The Superyacht (>24m) Survey

Most Superyachts visiting Fiji will base themselves out of Denarau Marina. Denarau provides dockage with power and fuel supplied to the berths. It is a centre of regional importance in the superyacht world.

Denarau is also the base for the 3 main Superyacht agents: Yachthelp, Yacht Partners Fiji and Baobab. Most Superyachts will use an agent to facilitate clearance, bunkering and provisioning. The Superyacht agents also provide charter agency services, arrange guest transfers and provide general logistical support.

There are therefore three points of contact with the Superyacht captains: direct approach when in marina; through the superyacht agents; and directly by email through the Marina.

Through discussion with the Superyacht Agents it was agreed that they would be the primary point of contact with superyacht captains. They would either interview captains themselves, or provide an introduction for project team interviewers to follow up.

Superyacht agent interviews

Agents were briefed on the survey and the questionnaire by the AMSTEC project team. They were provided with multi-use collector links to the survey. It was understood that they would contact yachts directly and either interview them, or encourage them to complete the online survey.

Face to face interviews

The AMSTEC project team were also introduced to a number of (docked) Superyacht captains by the agents.

These interviews were carried out face to face and provided an opportunity to probe the responses and explore some of the wider issues.

Self-completion online survey

Superyacht contact details were isolated from the email database compiled by the marinas. Those that had already been approached (directly, or through agents) were removed. The remaining ones were contacted.

Similar to the Yacht survey, invitations to take part in the survey were emailed out Superyacht captains. A single-use link to the online questionnaire was included in the invitation.

Superyacht response

Superyachts are run as very private enterprises and their captains and crews are necessarily secretive. The willingness of the trusted Superyacht agents to engage the captains directly was seen as a key to overcoming this anticipated reluctance.

However, it was expected that the majority of captains would still be unwilling to respond, particularly those that had departed Fiji earlier in the season.

This concern combined with the very tight timeframe for completion of the study meant that all channels of approach needed to be exploited.

Ultimately Superyacht spend could be best estimated on the basis of measured activity levels and transferred unit rates. However in the case of Fiji, there is insufficient knowledge of Superyacht activity, or spending patterns. Consequently it was decided to pursue an interview questionnaire approach and put emphasis on compiling as much spending data as possible.

4 SURVEY RESULTS

Headline Results from Surveys

All yachts		
Visiting yachts in Fiji during 2018	721	yachts
Average length of time in Fiji during 2018	133	days
Total number of crew (incl. skippers)	1,963	
Total number of guests visiting yachts	2,510	
Average spend per vessel	$41,729	FJD
Average spend per visitor	$6,726	FJD
Total spend in 2018	**$30,086,757**	**FJD**

Yachts under 24 m		
Visiting yachts in Fiji during 2018	667	yachts
Average length of time in Fiji during 2018	137	days
Total number of crew (incl. skippers)	1,647	
Total number of guests visiting yachts	1,723	
Average spend per vessel	$30,956	FJD
Average spend per visitor	$6,127	FJD
Total spend in 2018	**$20,647,749**	**FJD**

Superyachtst		
Visiting yachts in Fiji during 2018	54	superyachts
Average length of time in Fiji during 2018	82	days
Total number of crew (incl. skippers)	316	
Total number of guests visiting yachts	787	
Average spend per vessel	$167,329.52	FJD
Average spend per visitor	$8,192	FJD
Total spend in 2018	**$9,035,794**	**FJD**
Charter fees	$403,213	FJD
Grand total 2018	**$9,439,007**	**FJD**

Questionnaire design

Different questionnaires were designed for the Yacht and Superyacht surveys.

- Yacht respondents were asked for more detail about the range of spending on the yacht and by crew. The questionnaire reflected the fact that these yachts are generally owner operated and guests are invited, rather than paying.
- Superyacht respondents were asked about spending on the known cost items of superyacht operation. Superyachts are generally operated by a professional captain and crew for either charter purposes, or owner/guest visits.

Both questionnaires were targeted at captains or captain's representatives. Crew and guests were disqualified.

Collector control was managed to ensure that there was only one respondent per yacht.

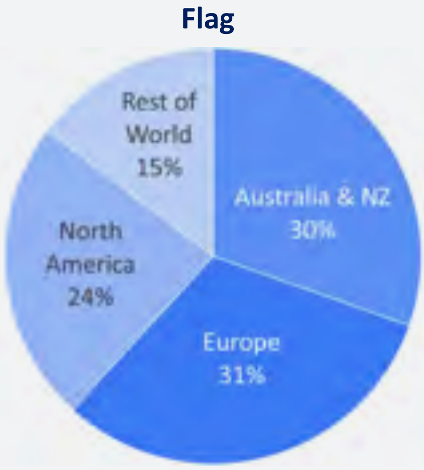
A limited number of face to face interviews were carried out by the survey designers to observe the level of comprehension by respondents. This also provided an opportunity to gain additional insights into the characteristics and preferences of yacht captains.

Respondent incentives

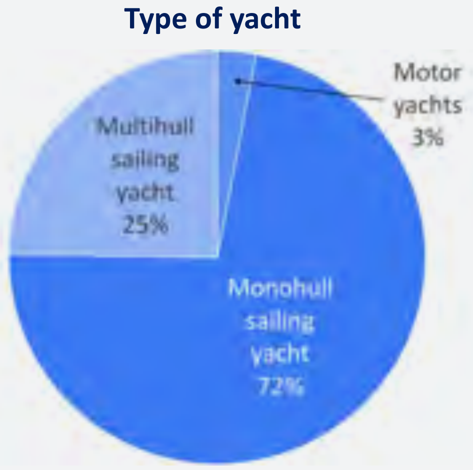
The opportunity to enter a prize draw was included in the Yacht survey to encourage respondents to complete the survey. Monitoring controls of responses were put in place to ensure that only genuine responses were included.

Survey Results for Yachts Under 24m – The Yachts and How Long They Stay in Fiji

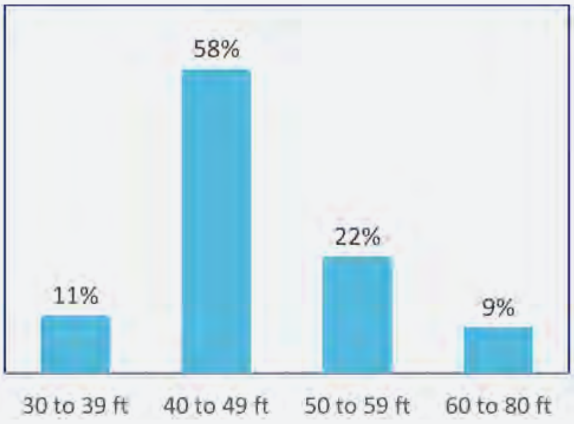
Two thirds of visiting yachts are registered in Europe and ANZ.



Nearly three quarters of yachts are Monohull sailing yachts.



Over half of all yachts are in the 50ft Size range.



- Half of all yachts stay less than 3 months 20% of yachts stay longer than 8 months.
- Motor yachts stay for 230 days on average compared to 137 days for all yachts.

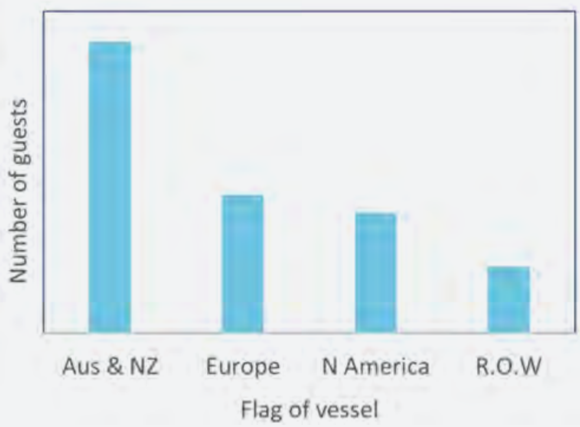
Survey Results for Yachts Under 24m – People on the Yachts

Crew

- A quarter of all yachts are sailed by one person (single-hander)
- Half of yachts have either two or three on board as skipper and regular crew.

Guests

- Each yacht attracts, on average, another 2.5 visitors to Fiji as guests on board.
- Guests are most likely to have travelled to Fiji from the home country of the vessel.
- These guests will have therefore used international air routes to Fiji and may also have stayed in hotels for some of their visit.



Guest travel to and from Fiji

Guest travel to and from Fiji could contribute around $3m through spending on Fiji airways flights.

Origin & route	No. guests	% who use Fiji Airways	Avg flight cost (FJD)	Total
Aus & NZ (SYD/AKL to NAN)	814	33%	FJD 1,251	FJD 1,018,728
N America (LAX to NAN)	335	33%	FJD 3,500	FJD 1,173,733
Europe (via SYD to NAN)	387	33%	FJD 1,251	FJD 483,760
ROW	187	33%	FJD 1,251	FJD 233,503
Total	**1723**			**FJD 2,909,724**

Survey Results for Yachts Under 24m – Regional Migration Routes Through Fiji

Migration of yachts generally follows the trade wind patterns

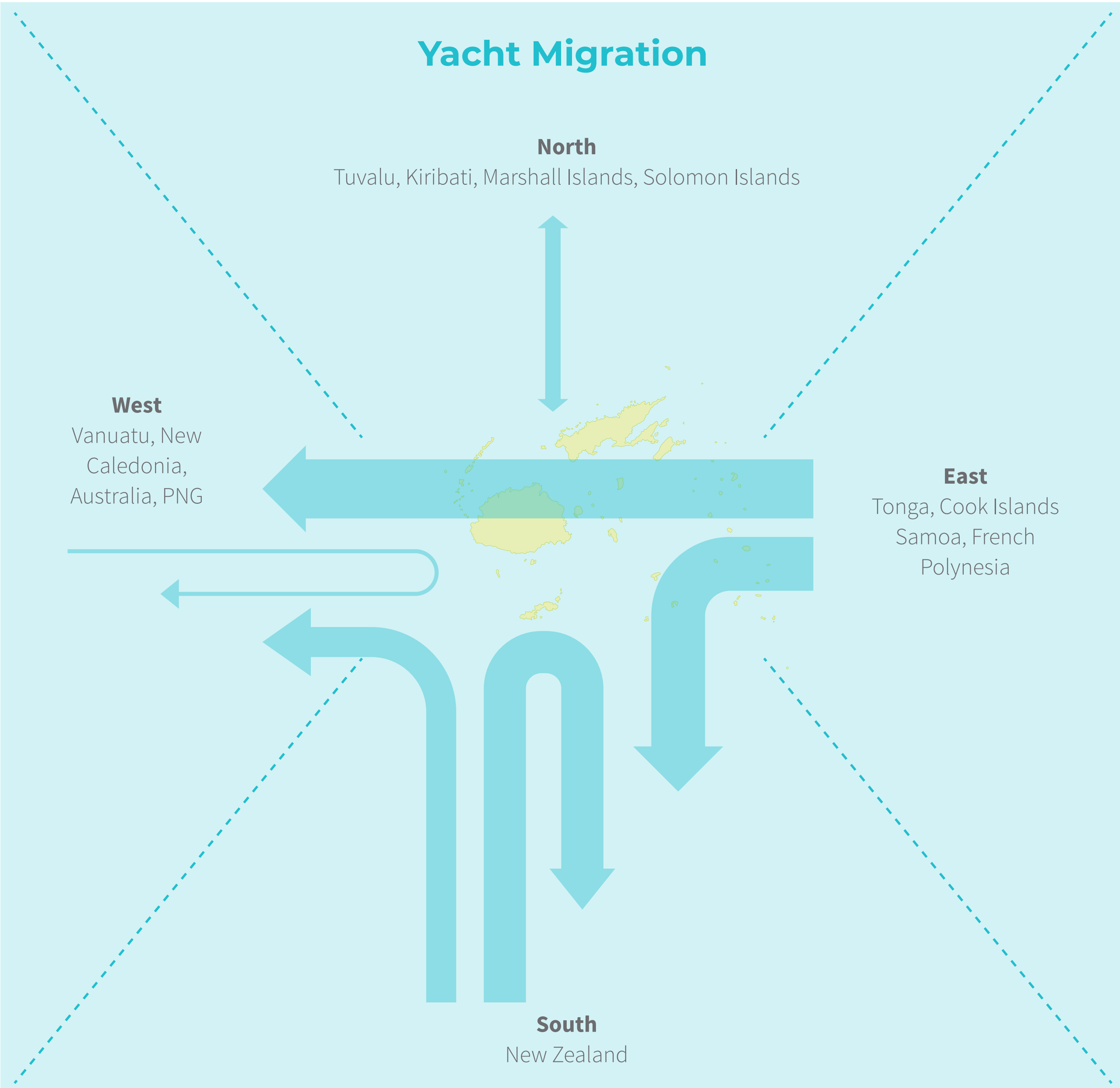
- Over half of yachts have arrived from island groups to the East
- There is roughly an equal split between those turning for New Zealand and those continuing with the trades
- It is likely that those heading west may later turn to New Zealand

The second biggest segment is from the New Zealand

- Most yachts from New Zealand return to New Zealand
- The remaining boats head west, some of which may turn south again at Vanuatu or New Caledonia

A small but significant number of yachts (40) travel to, or from islands groups to the north

- This is likely to be mostly made up of yachts travelling up through Tuvalu and Kiribati to the Marshall Islands as an alternative cyclone season strategy
- It is likely that some of these will also visit Rotuma where clearance can be carried out

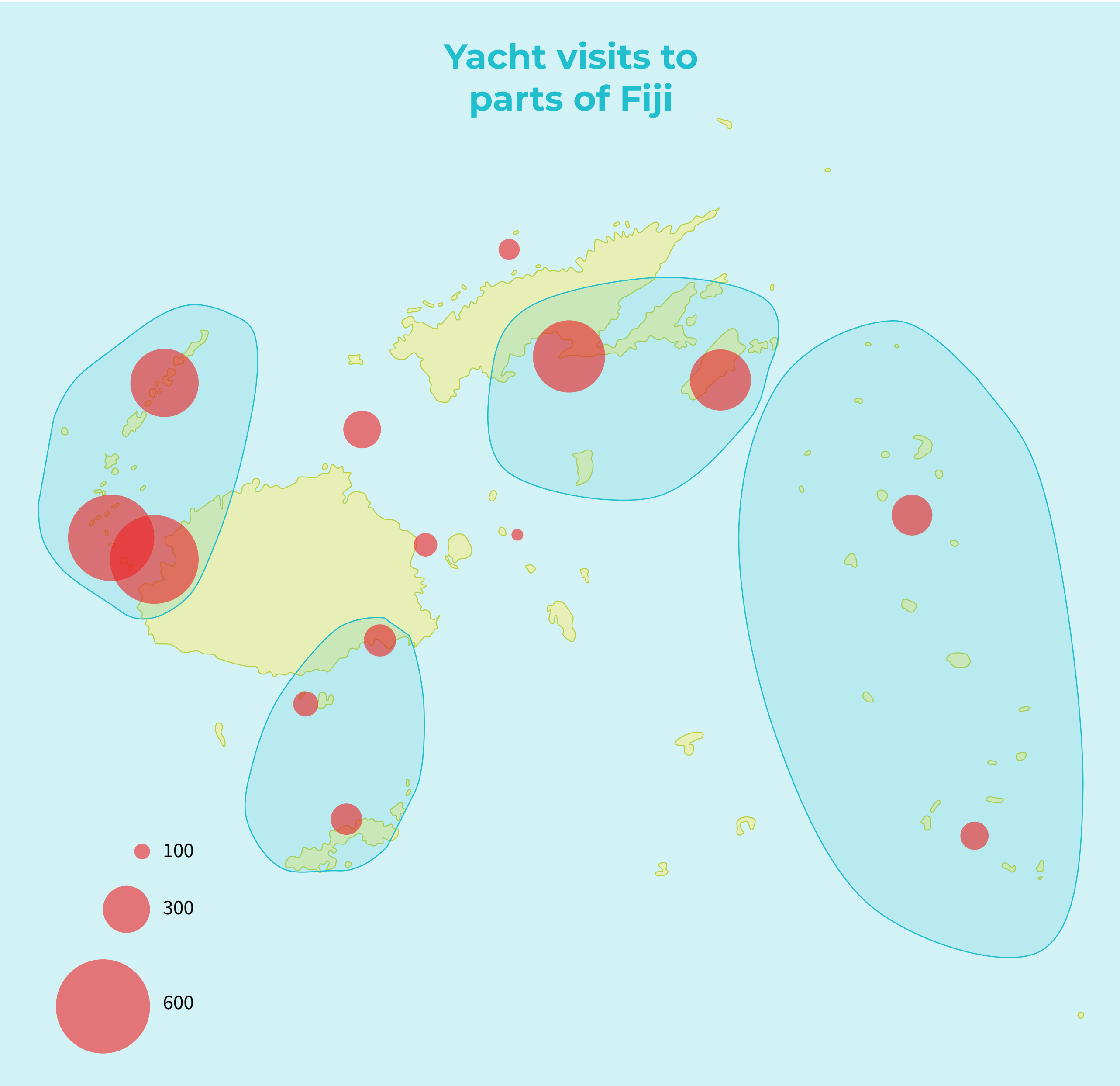


Survey Results for Yachts Under 24m – Areas Visited Across Fiji

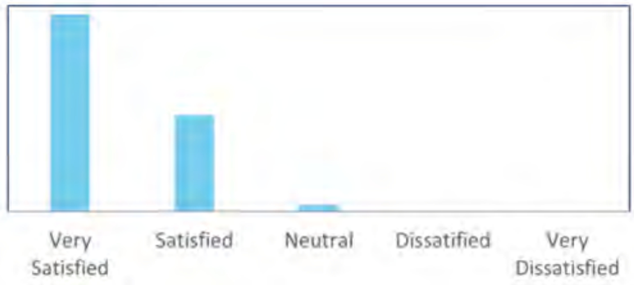
The main yachting service centres are the most visited by yachts (with the exception of Suva).

There are 4 wider cruising grounds.

- The heart of the cruising is between Denarau/Vuda and the Manamucas, and for most, on up to the Yasawas.
- Savusavu to Taveuni is also a very significant cruising area with nearly 400 yachts reaching Taveuni.
- Despite there being no yachting centre, Lau Group is another important cruising ground Northern Lau records 262 visits and another 180 yachts get down to Southern Lau.
- Suva provides a yachting centre for the Beqa/Kadavu cruising area – some 200 yachts get down to Kadavu.

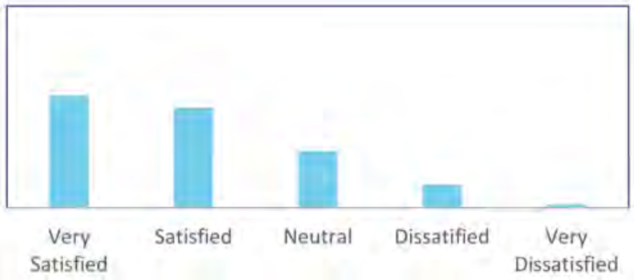


Survey Results for Yachts Under 24m – Experiences



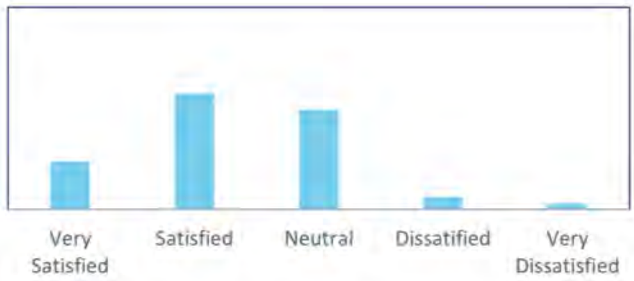
Overall experience

Overall, no yachts reported any dissatisfaction with their yachting visit to Fiji.



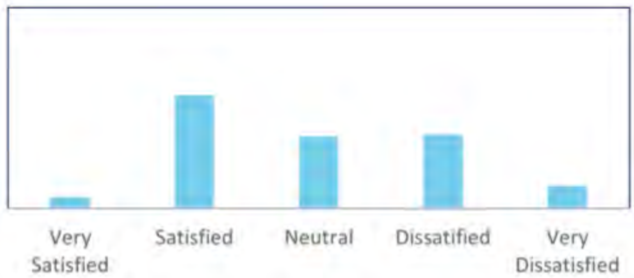
Formalities

Satisfaction levels with customs/immigration/ bio security formalities are generally good, although there are a small number dissatisfied.



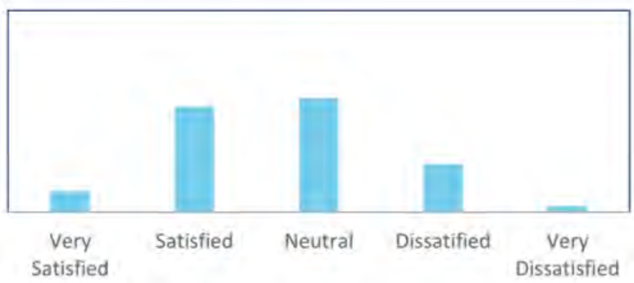
Maintenance services

Satisfaction levels with yacht maintenance services are lower with a few very dissatisfied customers.



Quality of navigation charts

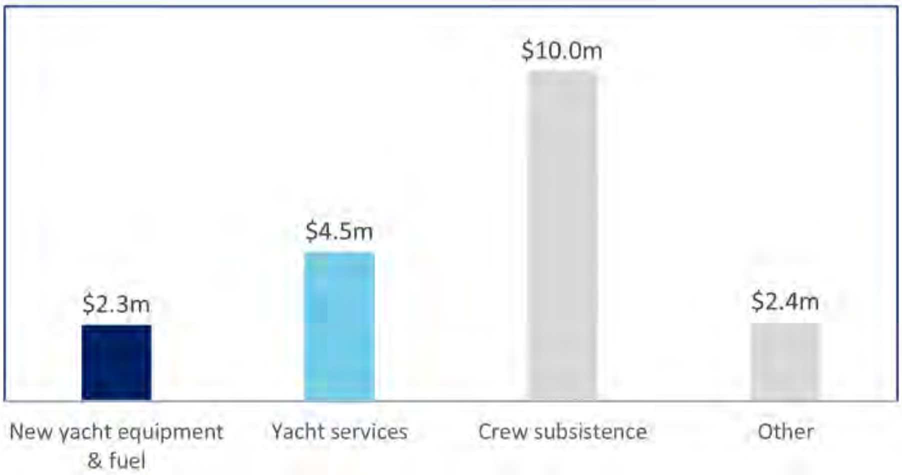
Low satisfaction levels with navigation charts is an ongoing issue and probably puts many off cruising through less well-known parts of Fiji.



Availability of yachting products

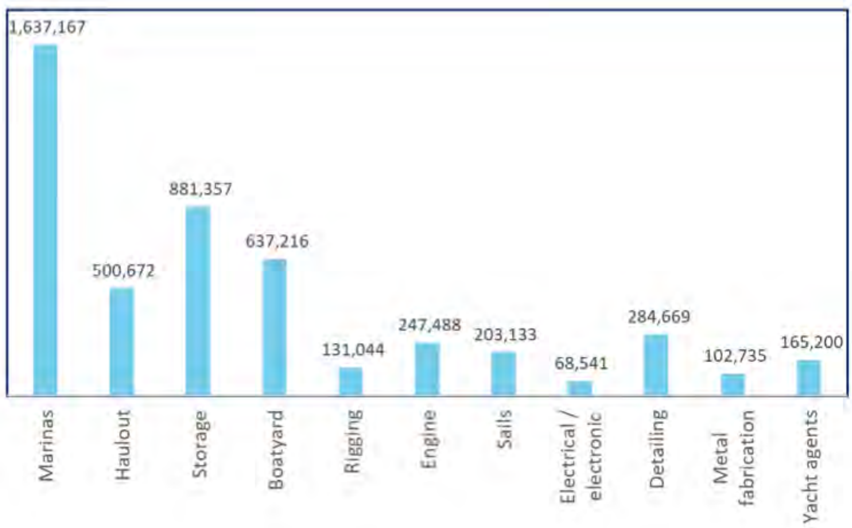
It is perhaps not surprising that the availability of yachting products in Fiji receives relatively low satisfaction.

Survey Results for Yachts Under 24m – Spending on Yachts

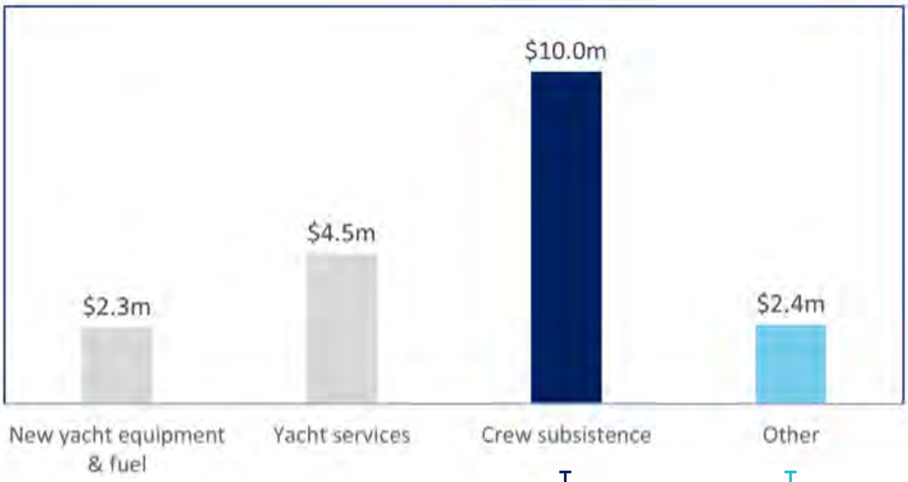


Just over $7m per year is spent on running and maintaining yachts

- Fuel and marinas are the biggest spend items.
- $2m is spent on boatyard services.
- A further $1m is spent on equipment maintenance services.



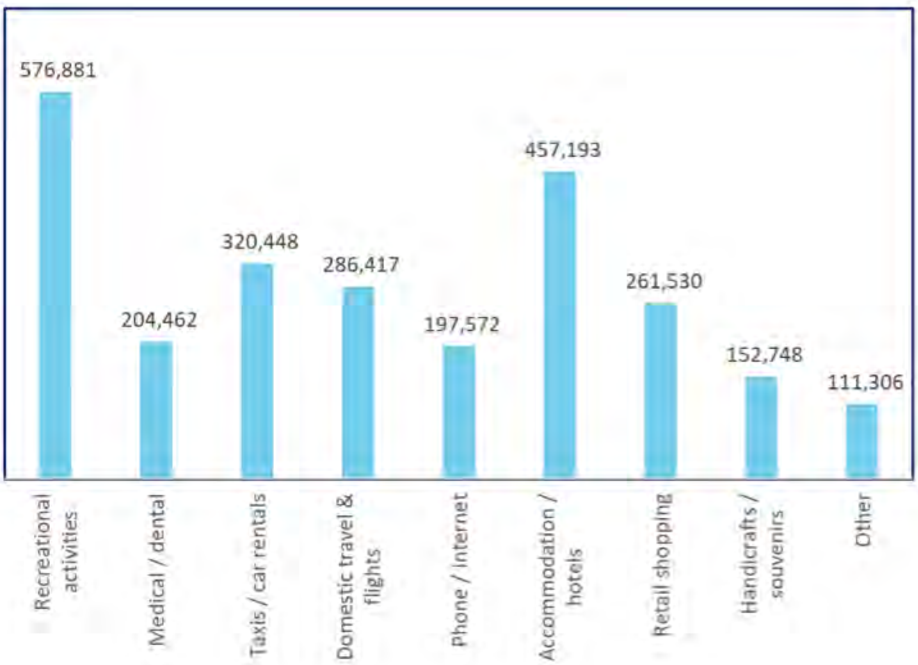
Survey Results for Yachts Under 24m – Spending on (and by) Crew



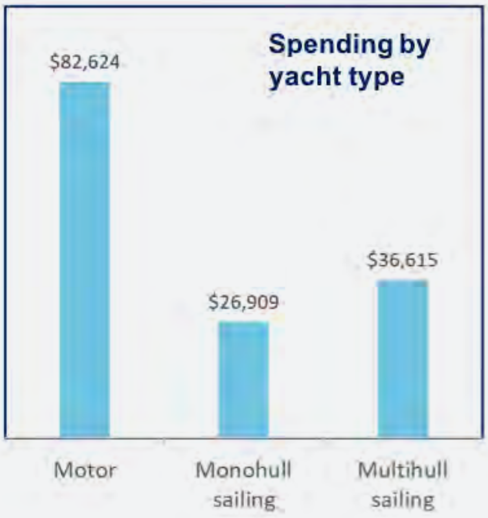
Overall $12.5m is spent on food, socialising and other activities by the crew.

Provisioning, bars and restaurants at $10m is half of the overall total spend by visiting yachts.

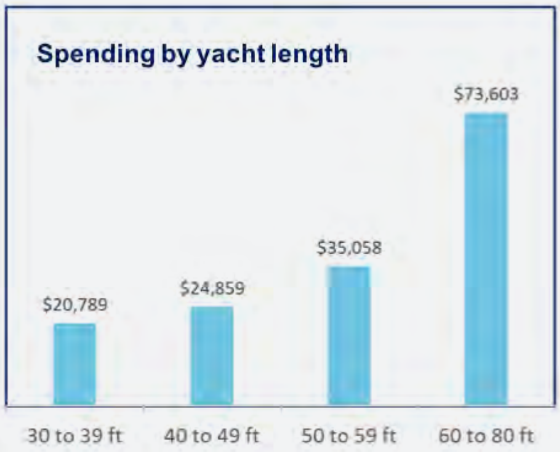
Other personal spending makes up about a quarter of overall spend.



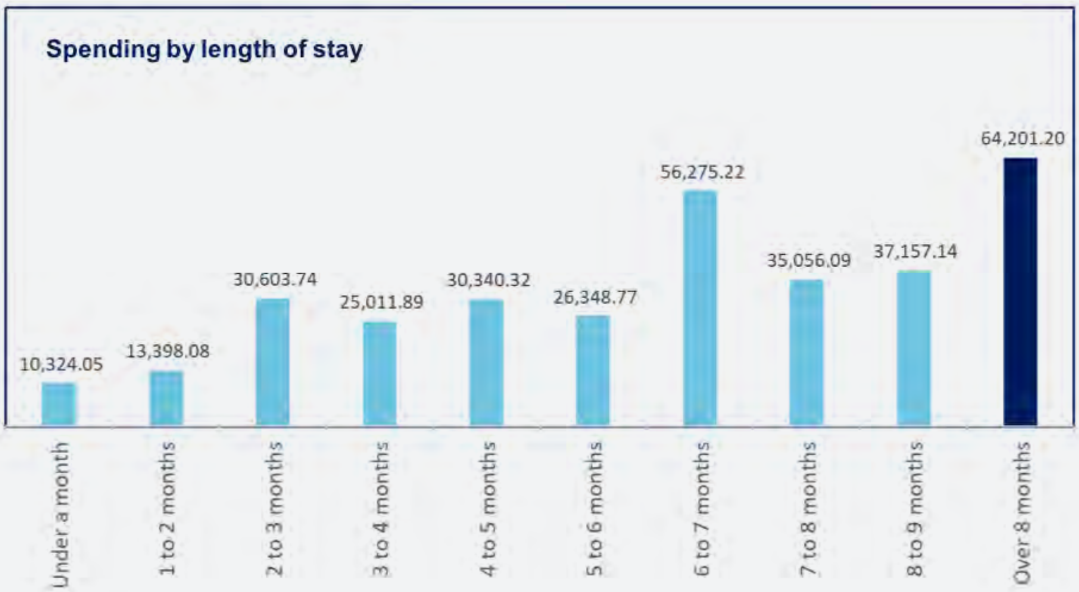
Survey Results for Yachts Under 24m – Spending Broken Down



The higher spend by motoryachts is due to fuel costs. It is also likely that motor yacht owners are generally wealthier.

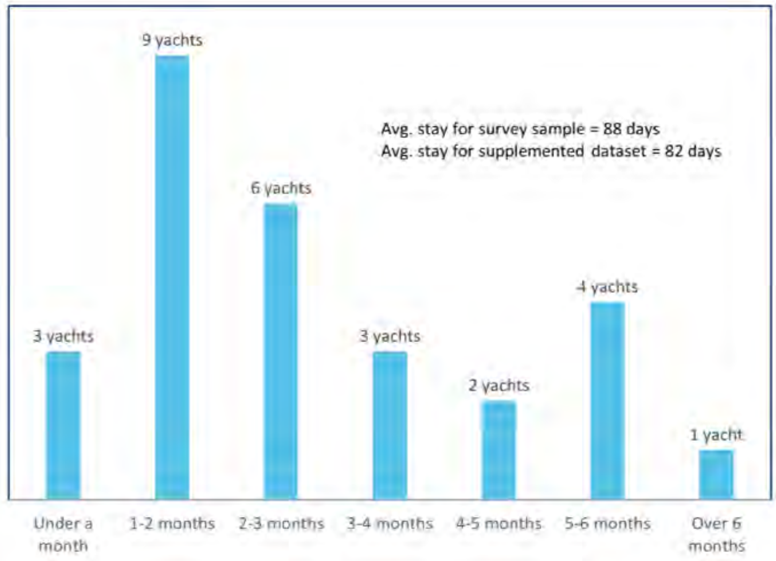


Reflects the non-linear relationship between running costs and size.



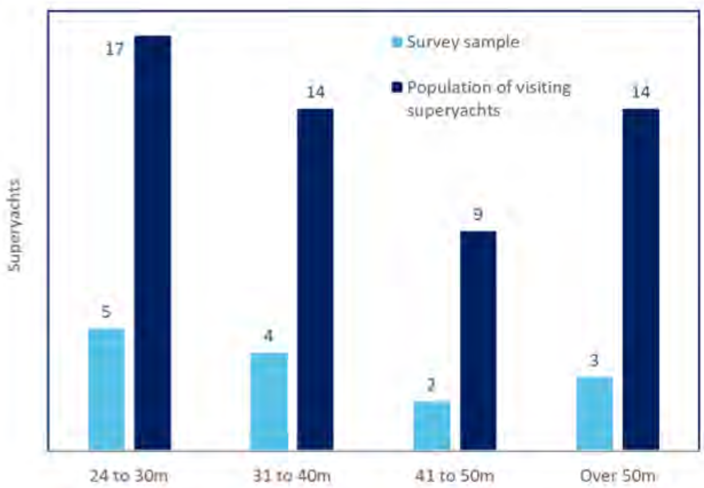
Each additional month spent in Fiji by the average yacht results in an additional $5,000 of spend.

Survey Results for Superyachts – Composition of Fleet

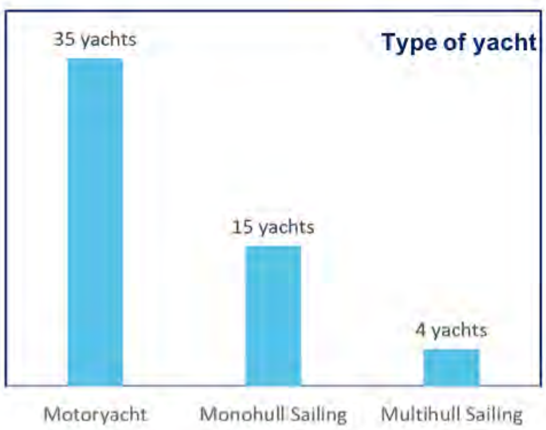


For the purposes of profiling the fleet and its activity, the survey dataset was supplemented with data on non-responding yachts provided by the marinas and agents.

The FRCS dataset contained insufficient detail to enable the length of stay in Fiji to be completed for all superyachts. However some arrival/departure data was available from Superyacht agents.



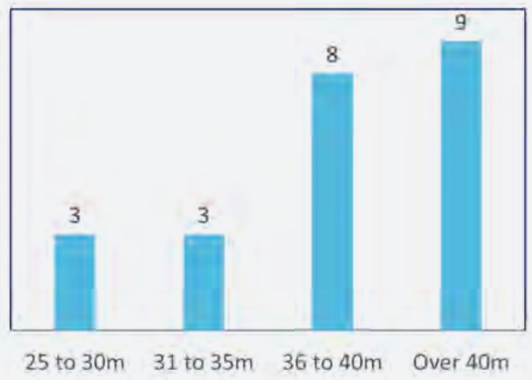
It is noteworthy that the survey sample is broadly reflective of the known population of visiting superyachts when compared on the basis of size (see earlier comments on survey expansion).



Motoryachts make up over two- thirds of the superyacht fleet.

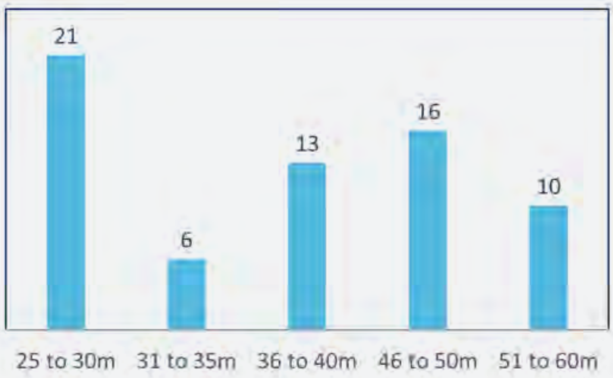
Survey Results for Superyachts – People on the Yachts

Average superyacht yacht crew size by LOA



- An estimated total of 316 crew came into Fiji on visiting yachts.
- Average crew sizes increase significantly with superyacht LOA.
- The overall average for superyachts is 5.9 crew per vessel.

Average number of guests per yacht

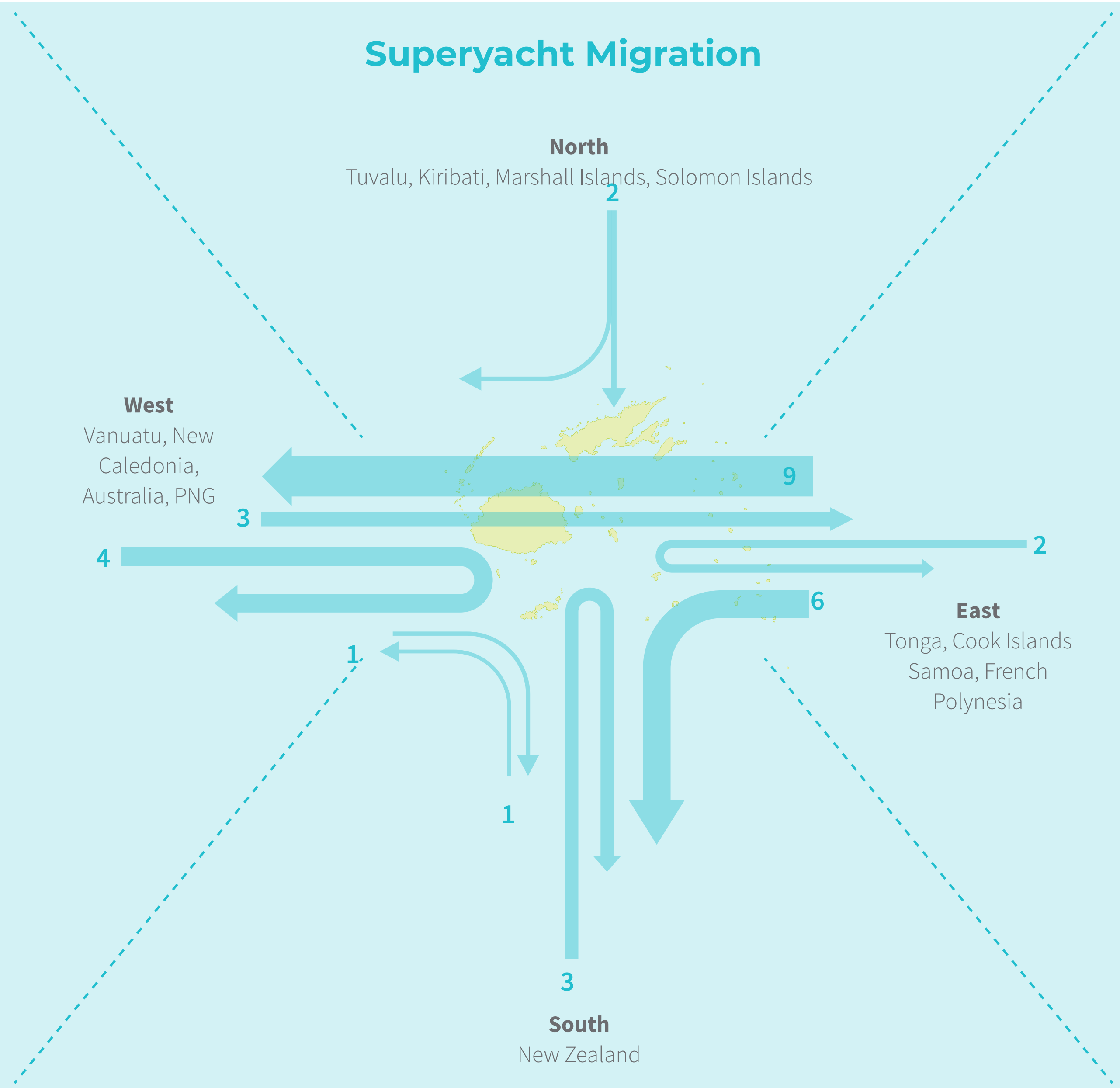


- An estimated 787 guests visited superyachts in Fiji.
- The number of guests per yacht varied significantly across the fleet. The overall average was 15 guests per yacht.

Survey Results for Superyachts - Regional Migration Routes Through Fiji

Data on migration patterns was available for 31 of the visiting superyachts. Routes are more significantly more diverse and less trade wind dependent than for yachts under 24m.

- The east/west axis is more prominent than the axis down to New Zealand, although this may be more likely to reflect local tropical cruising patterns than a preference for Australia or New Zealand routes
- 17 superyachts out of 31 arrived from the east, of which 9 continued on west
- Superyachts are more likely to cruise against the trade wind patterns with 9 out of the 31 yachts having some west to east movement
- 40% of the superyachts which visited Fiji in 2018 are now in New Zealand, 30% are now in Australia



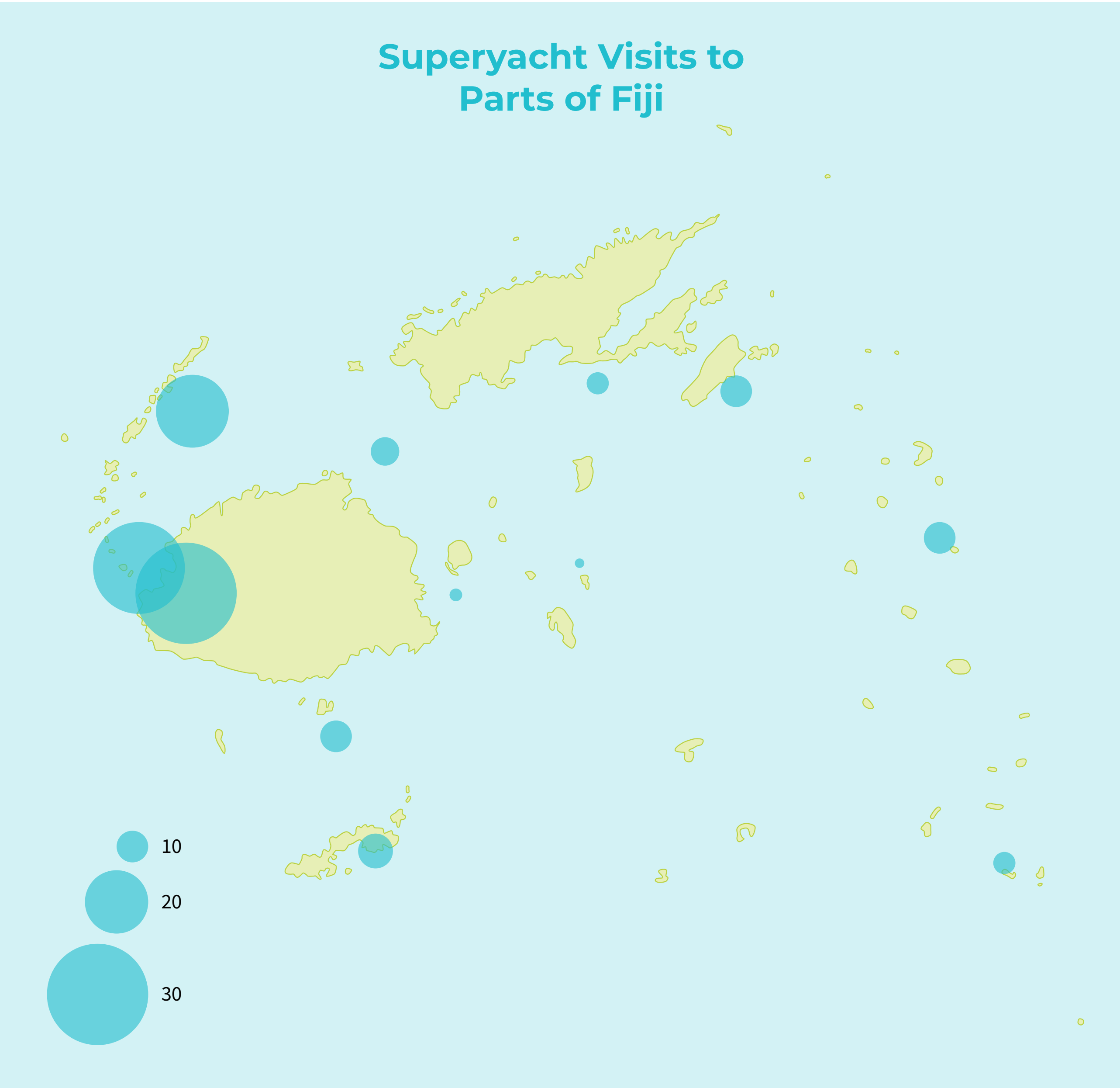
Survey Results for Superyachts – Areas Visited Across Fiji

The Denarau and western islands are the most visited parts of Fiji for the 31 superyachts for which data is available.

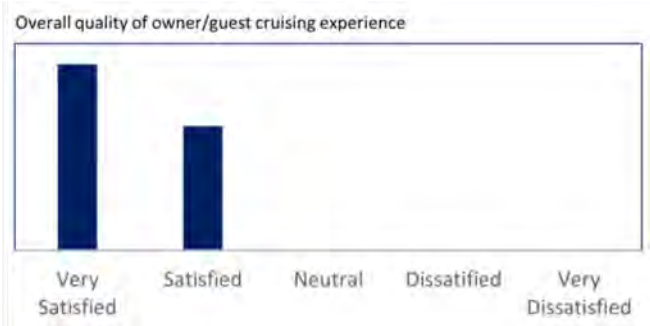
Currently Savusavu is of little importance to the superyachts although this may change with the opening of a new marina facility there.

Superyachts visit all of the 4 cruising areas previously identified for the yachts under 24m.

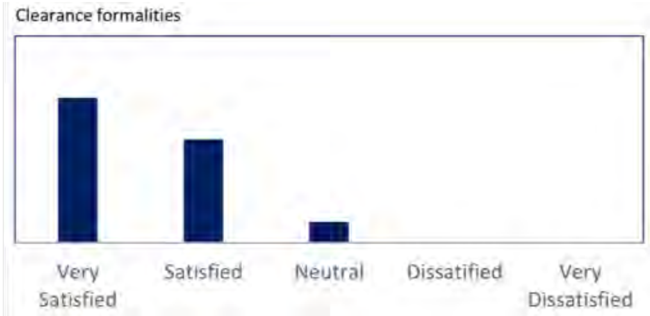
- The heart of the cruising is between Denarau/Vuda, Manamucas, and Yasawas
- 10 of the 31 Superyachts reported visiting Taveuni
- 10 superyachts visited Lau
- Beqa/Kadavu received 11 superyachts, however there were no reported visits to Suva



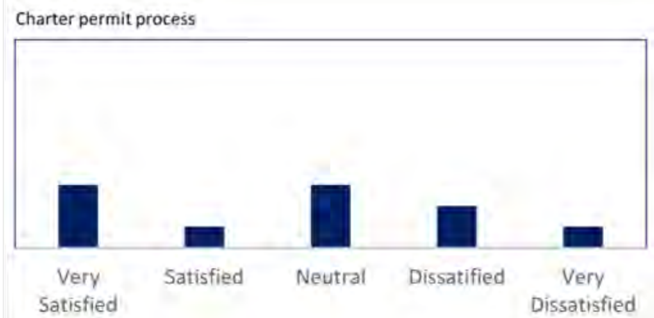
Survey Results for Superyachts – Experiences



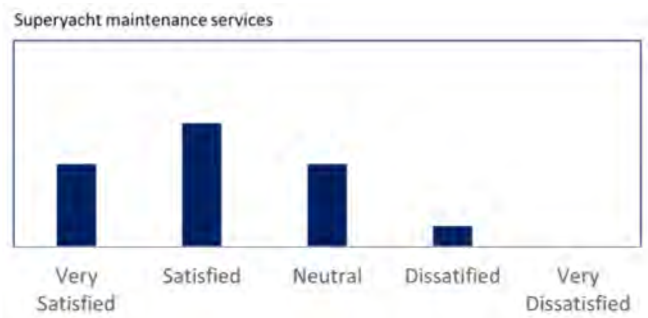
The perception was that owners and guests had good cruising experiences



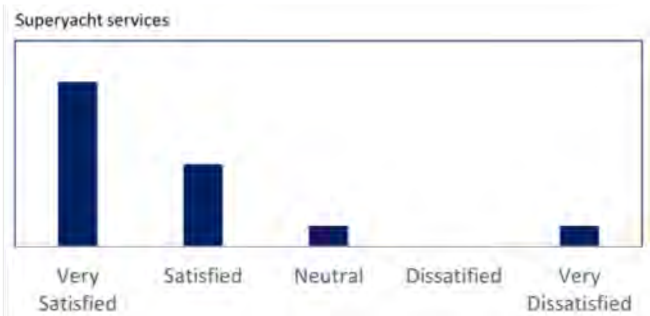
There was broad satisfaction with clearance formalities, although there was some commentary about the length of forms



Although only very few yachts committed to charter permits, there was some dissatisfaction with the regulations

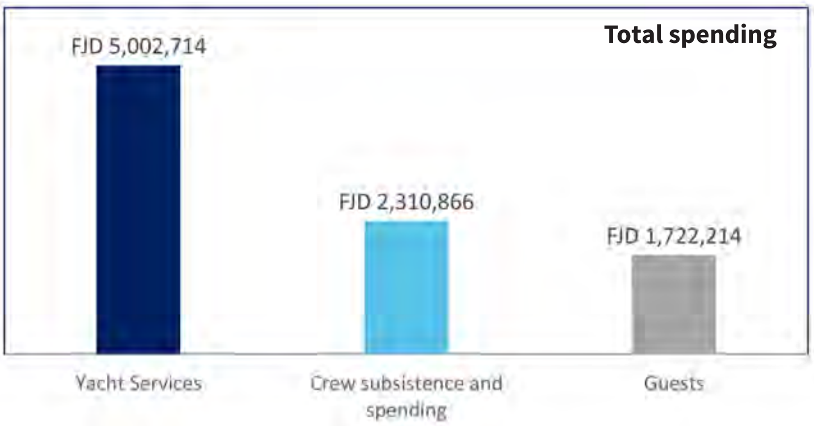


Although generally satisfied there were some captains who were not positive

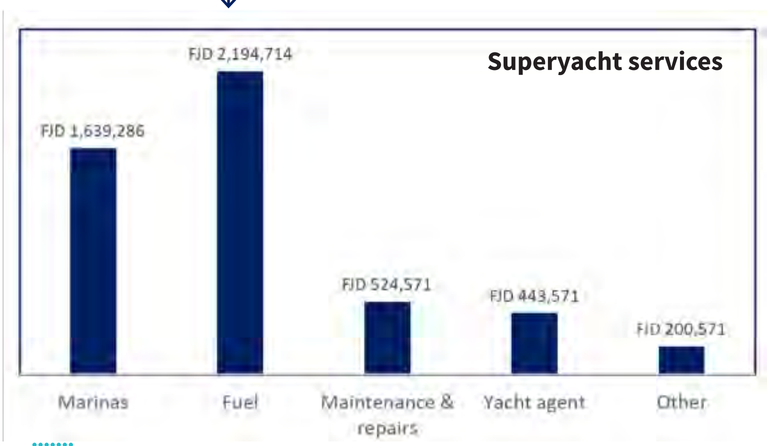


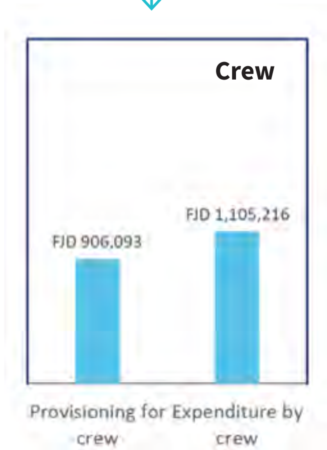
Captains were mostly satisfied with general superyacht services

Survey Results for Superyachts– Spending on Yachts

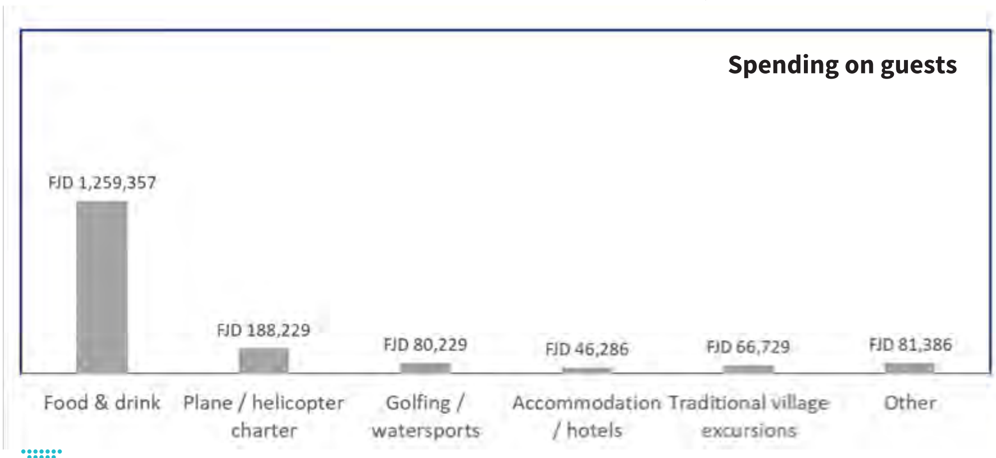


Half of total superyacht spending is on running the vessel.





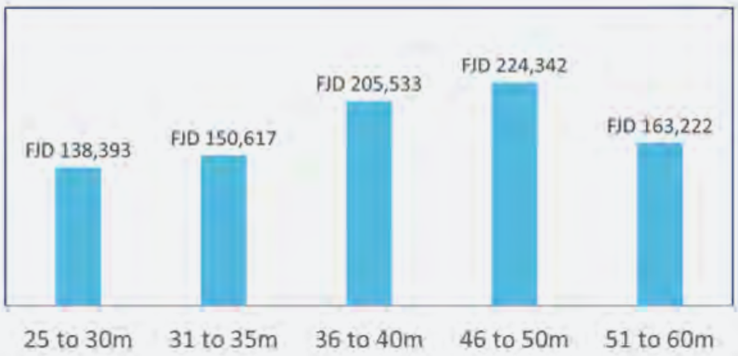
80% of spending on yacht services is for fuel and marinas.

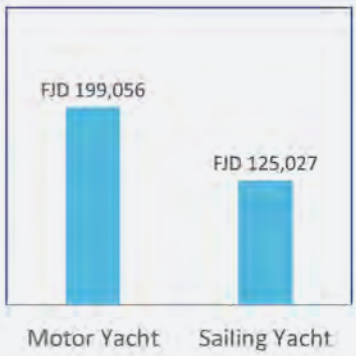


Spending on guests is dominated by provisioning food, beverages and alcohol.

Survey Results for Superyachts– Spending by Superyacht Yacht Type

Spend per yacht

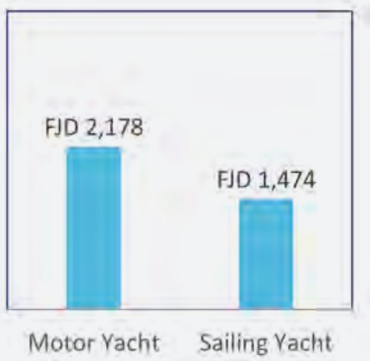




The spend per yacht generally increases with size as expected – the apparent lower spending for yachts over 51m is due to a shorter stay in Fiji for those yachts in the sample.

As would be expected motoryachts spend more than sailing yachts - motoryachts buy more than 4 times the amount of fuel.

Spend per yacht per day



By aggregating superyacht numbers for size ranges, more reasonable sample sizes lead to a more confident figure for spend per yacht per day.

Even by controlling for the longer average stay of motoryachts, the spend is still significantly more.

Survey Results for Superyachts – Charters

The 2018 Fiji superyacht charter business

Given the infrequency of superyachts actively chartering, the superyacht sample size was too small to provide reliable data about the 2018 charter business. However the Superyacht agents and Denarau Marina management were able to provide data on 2018 charter activity.

Overall 70 days of charter were undertaken by 7 superyachts while in Fiji. Government fees (FJD 403,213) amounted to 12% of the total Gross Charter revenue of FJD 3.5m (assuming that the superyacht agents pass the licence costs on to chartering superyachts).

The average weekly Gross Charter fee of FJD 350,000 appears high for an average superyacht size of 34m. However removing the report of one long charter by a larger yacht brings the average Charter Fee into line with what would be expected.

The superyacht charter Advance Provisioning Allowance APA is a very significant spend into the Fijian economy

The superyacht charter Advance Provisioning Allowance (APA) represents a FJD 1 million spend directly into the Fijian economy

The APA was allocated for spending on food, fuel, port costs, special charter requests and communications on behalf of the charter guests.

Most of this APA represents foreign exchange paid to Fiji businesses in preparation for, and during, the charter.

This APA sourced spend will have been captured within the overall reported spending in survey responses, however it would not have been possible to separate the charter share from the overall spend recorded in the superyacht survey.

2018 superyacht charter activity, revenues and fees	
Number of vessels chartering	6
Number of charters	7
Total days of charter	70
Gross Charter Fees	**FJD 3,485,266**
Recognised Superyacht Agent License (3 agents)	FJD 15,000
Environment and Climate Adaptation Levy (ECAL)	FJD 348,527
Vessel permits	FJD 18,000
MSAF survey fees	FJD 21,686
Total fees	**FJD 403,213**
Nett charter revenue	**FJD 3,082,053**
Nett charter revenue per week	**FJD 308,205**
APA	**FJD 1,003,500**

Survey Results for Superyachts – Charters

Superyacht charters are subject to the Government licencing and permits

The 2010 Superyacht decree (and 2017 amendment) are the enabling legislation for visiting superyacht to undertake charts in Fiji. Overall the process is clear and there are significant penalties for non-compliance.

Under these arrangements there is a significant up-front commitment required to make a superyacht available for charter in Fiji. Each individual charter then subject to approval through MSAF and FRCS.

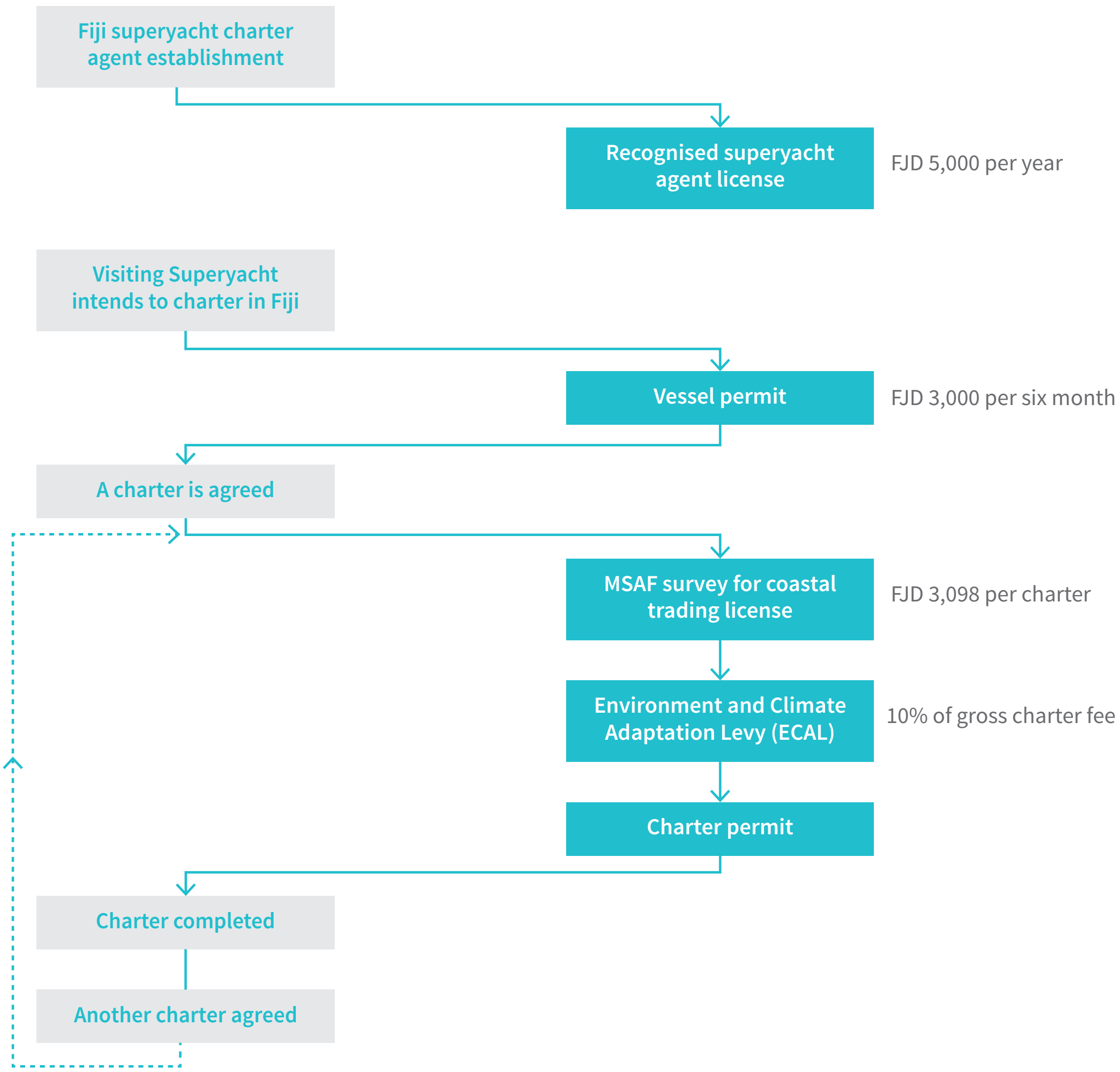
The requirement for MCA coded (or similar) vessels to undergo MSAF survey for each charter is onerous.

MSAF have interpreted the legislation to require chartering superyachts to be repeatedly surveyed prior to the approval of each individual charter. It is understood that this is a requirement under the coastal trading licencing.

It was stated by a number of survey respondents that this repeated surveying of coded superyachts engaged in charter was unnecessary and seemed to be primarily a revenue raising exercise rather than addressing a real safety concern.

Frustration with this process is likely to be a deterrent for superyachts considering chartering in Fiji.

It is beyond the scope of this study to address the interpretation of the legislation that results in the requirement for this repeated survey process. However, the Government fees revenue and perhaps more significantly, the added spending into the Fiji economy make this a lucrative sub-sector and streamlining the processes would have the potential to increase activity.



Survey Results for All Yachts – Comparison with Previous Year Surveys

Surveys of visiting yachts have previously been carried out by Denarau Marina annually since 2010. Questionnaires and outputs from these surveys have been made available to AMSTEC.

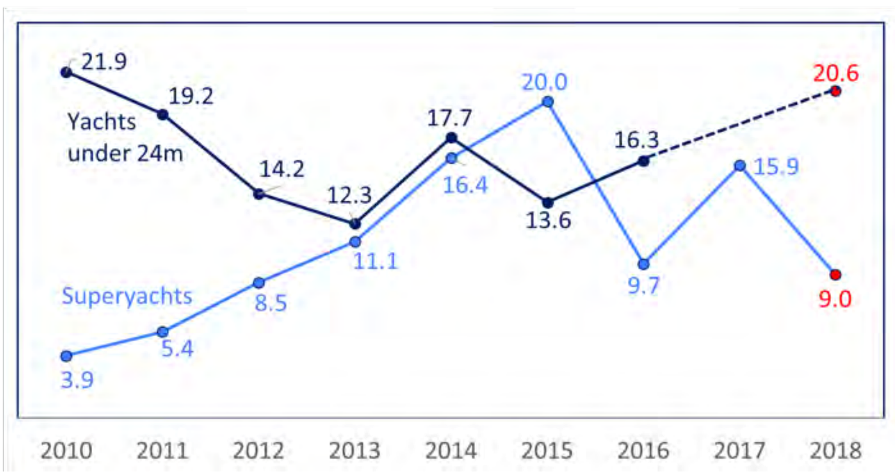
There are a number of differences between previous surveys and this survey. Some of these differences are methodological and some are year-to-year variability in yachting activity.

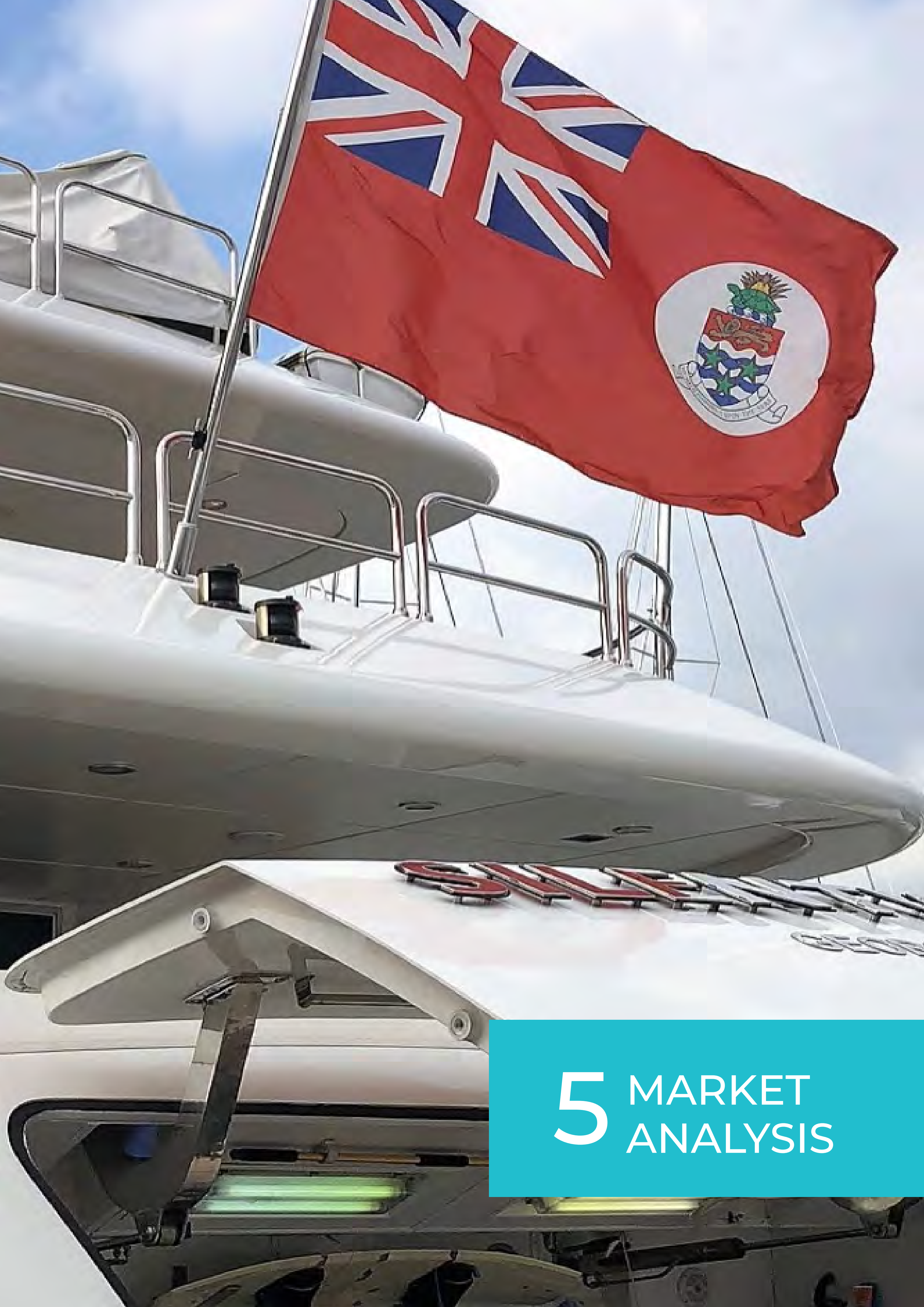
It is expected that the effect of the 2018 differences would be to reduce the random error in measurement of spending, rather than introduce an upward or downward bias. However in this variable market (particularly for superyachts) year-to-year trends must be treated with some caution. Longer term trends provide better insights.

- As expected, the under 24m yacht numbers are relatively stable although there was a clear downturn during the years of the two major cyclones affecting this part of the South Pacific (Pam and Winston)
- Spending by yachts under 24m closely follows yacht numbers with the 2018 spending being the second highest recorded
- Superyacht numbers have been relatively stable since 2014 (with the exception of the Winston year) – this may in part be a reflection of the reported marina capacity constraints
- Superyacht spending is very variable and primarily reflects length of stay in Fiji – 2014 and 2015 measured average stays of 104 and 120 days compared to 82 days in 2018 (length of stay could be influenced by perceptions of over-capacity.

Number of yachts

Total direct spend* (FJD million)





5 MARKET ANALYSIS

Market Analysis - The Principal Seasonal Migration Routes for Yachts Under 24m

Trans-Pacific routes

These yachts will have entered the tropical Pacific through Panama or the west coast USA. There are approximately 350 yachts on these routes. They are generally either:

- European or USA yachts on a round-the-world (or Pacific) cruise, or
- Australian or New Zealand yachts heading home.

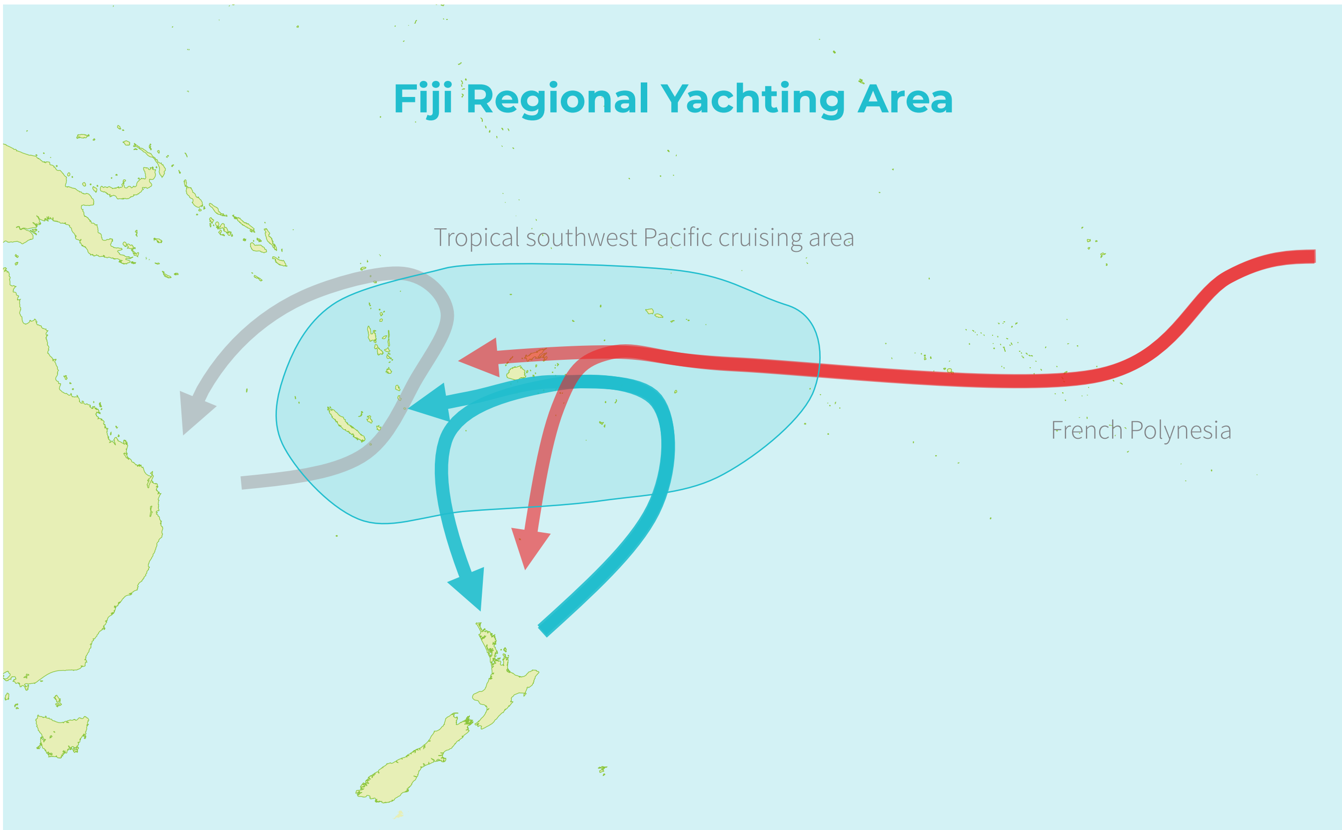
Seasonal routes out of New Zealand

New Zealand is well located for getting further east in the tropical Pacific. These yachts (approximately 220) will be either

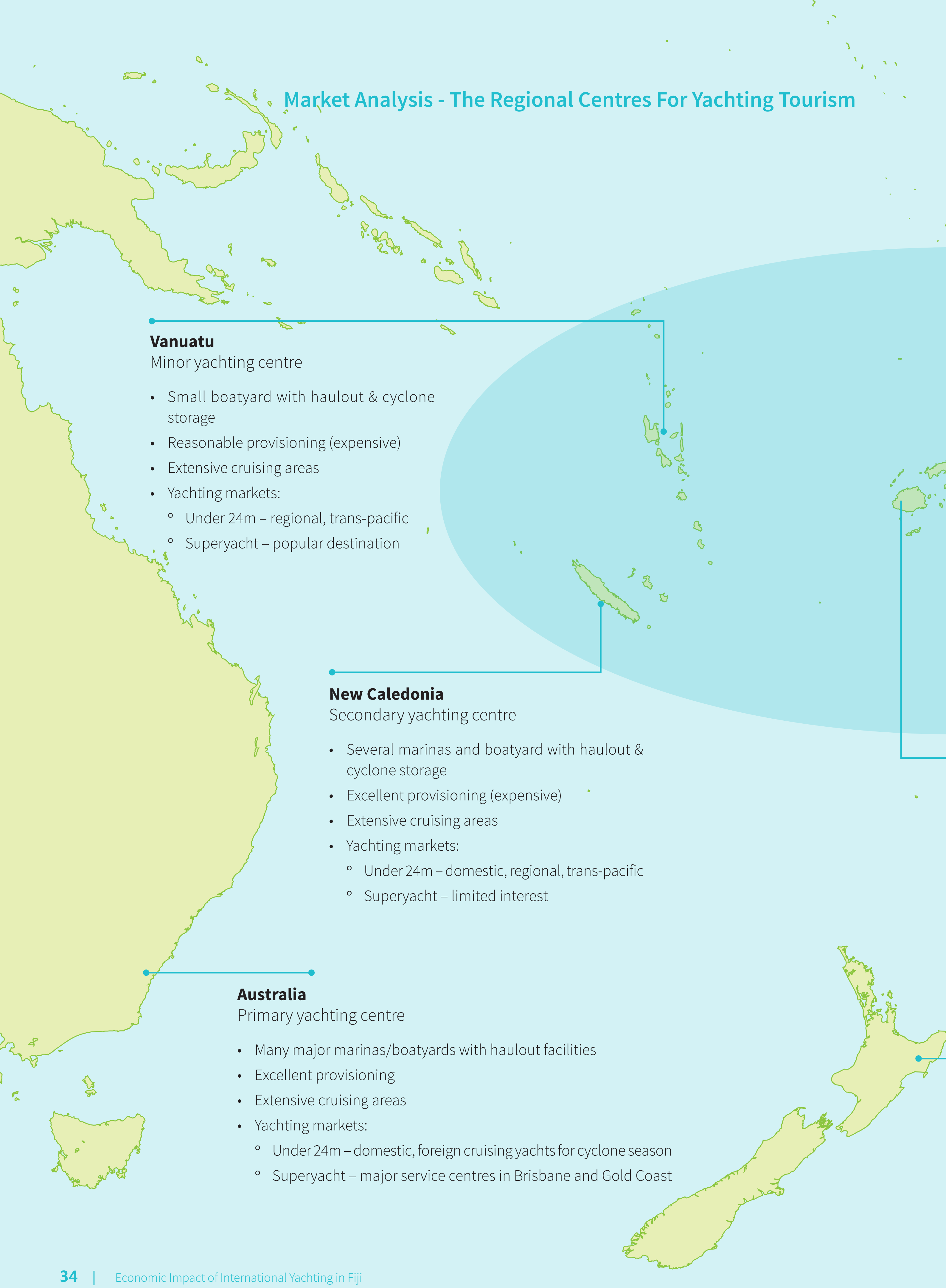
- NZ yachts on a season's cruise, or
- Other international yachts which have used NZ as a cyclone season refuge – these may continue west or return to NZ for another cyclone season.

Seasonal routes out of Australia

Only a small number (less than 30 yachts) make it as far east as Fiji. The main cruising ground is New Caledonia and Vanuatu. It would be difficult to persuade more yachts to come to Fiji given the distances and prevailing wind conditions.



Market Analysis - The Regional Centres For Yachting Tourism



Vanuatu
Minor yachting centre

- Small boatyard with haulout & cyclone storage
- Reasonable provisioning (expensive)
- Extensive cruising areas
- Yachting markets:
  - Under 24m – regional, trans-pacific
  - Superyacht – popular destination

New Caledonia
Secondary yachting centre

- Several marinas and boatyard with haulout & cyclone storage
- Excellent provisioning (expensive)
- Extensive cruising areas
- Yachting markets:
  - Under 24m – domestic, regional, trans-pacific
  - Superyacht – limited interest

Australia
Primary yachting centre

- Many major marinas/boatyards with haulout facilities
- Excellent provisioning
- Extensive cruising areas
- Yachting markets:
  - Under 24m – domestic, foreign cruising yachts for cyclone season
  - Superyacht – major service centres in Brisbane and Gold Coast

Samoa
Minor yachting centre

- Small marina
- Limited provisioning
- Limited cruising areas
- Yachting markets:
  - Under 24m – regional, trans-pacific

French Polynesia
Minor yachting centre

- Several marinas (with haulout in Tahiti)
- Superyacht docking
- Excellent provisioning, (expensive)
- Extensive cruising areas
- Yachting markets:
  - Yachts under 24m – domestic, bareboat and trans-pacific
  - Superyachts (50-60 per year)

Fiji
Secondary yachting centre

- 2 main marinas with haulout & cyclone storage
- Superyacht docking
- Excellent provisioning
- Extensive cruising areas
- Yachting markets:
  - Under 24m – regional and trans-pacific
  - Superyachts (40-50 per year)

Tonga
Tertiary yachting centre

- Boatyard with haulout & cyclone storage
- Limited provisioning
- Reasonable cruising areas
- Yachting markets:
  - Under 24m – regional, trans-pacific & bareboat

New Zealand
Primary yachting centre

- Many major marinas/boatyards with haulouts
- Excellent provisioning
- Extensive cruising areas
- Yachting markets:
  - Under 24m – domestic, foreign cruising yachts for cyclone season
  - Superyacht – major service centres

Market Analysis – Fiji Under 24m Yacht Market Potential

Increasing the length of stay could result in an extra \$3m of direct spend.

The overall number of yachts is likely to be remain reasonably stable

- Fiji is an important re-supply stop for most yachts cruising in this region. It is therefore reasonable to assume that most cruising yachts active in the region visit Fiji at some point in the season.
- The only exception to this would be yachts which spend the season further west (New Caledonia and Vanuatu) and are reluctant to make the additional sail against the trade winds.

In the short to medium term the total available market could therefore be assumed to be at around the 700 yachts which already make a stop in Fiji at some point in the season.

In the longer term a coordinated regional campaign to grow the overall market of yachts visiting the South Pacific tropical region could increase this overall market.

The busy period of the year is short and most yachts are part-season

Cruising guides advise on a cyclone from mid-November until end of April. Most insurers require yachts to be out of the cyclone latitudes between November and end of April.

The accumulation of yachts over 2018 in Fiji clearly reflects these seasonality drivers. The profile is very peaked with relatively lightly populated shoulders, August and September being the peak months.

There is evidence that Fiji is regarded as a part-season destination by a significant number of yachts.

Market Analysis – Realising the Market Potential for Yachts Under 24m

Bearing in mind the goal to increase the length of stay for some (currently shorter stay) yachts, the question arises as to how to identify and quantify these markets.

The target segments for yachts under 24m

These can be defined according to the principal cruising routes:

- Seasonal cruising out of New Zealand – some of these yachts are likely to be spending some of their cruising season in Tonga or Vanuatu
- Trans-pacific cruising – these yachts are time limited in that they are likely to have started their season in April from 2,400 Nautical Miles away to the east.

Among these two segments, a total of around 172 yachts stay less than 2 months, and 350 stay less than a full season (5 months).

A full-season cruising destination

Fiji has the potential to be a full-season cruising destination – increasing the length of stay. There are four discrete and different cruising areas with sufficient attractions and diversity to absorb cruising yachts for more than one season. Apart from Lau Group these cruising areas are served by fuelling, provisioning and yachting service centres.

A Lau yachting centre with clearance facility would allow visiting yachts to enter Fiji at the 'upwind' extreme, giving them an opportunity to visit parts of Lau which otherwise get very little benefit from the tourism economy.

Thought should be given to formalising the concept of cruising areas centred on yachting hubs. Each cruising area could be actively promoted and sustainably managed. This would help establish a better defined and more understandable set of cruising options (or products).

Discretely defined (and promoted) cruising areas would also help to convey the geographic and cultural diversity of different parts of Fiji, reinforcing the message of a full-season cruising destination, or even a multi-season cruising destination.

Market Analysis – Superyachts

The superyacht market is very different to the yachts under 24m. Destination decisions for superyachts are at the whim of very affluent owners and charterers.

Most of these yachts are less restricted in the direction of their movements within the tropical trade wind belt. Their service and layover needs are also much more specialised.

With top-end resorts such as Laucala Island (belonging to the owner of Redbull) and Kokomo Private Island (developed by Laing Walker), Fiji has a brand which is highly consistent with the superyachting image.

The number of superyachts visiting Fiji oscillates around 50 per year. These yachts will see Fiji as one of two Superyacht centres in this part of the tropical Pacific islands. Fiji will be on the itinerary of most Superyachts passing through.

New Zealand and Australia are the main Superyacht service centres in the region. Each of these is reported to receive around 50-60 foreign superyachts per year. (Note, these numbers will increase significantly around the time of the 2021 America's Cup in New Zealand).

The potential to increase the overall number of superyachts visiting Fiji (other than during the America's Cup event period) is limited. There are also currently capacity constraints during the peak of the season.

There are therefore two options for increasing the spend by Superyachts in Fiji:

- Increasing the length of stay (average 82 days in 2018)
- Increasing the number of 'guest events' such as charters.

Increasing the Superyacht stay

The length of stay could be increased by reinforcing Fiji's positioning as the primary (in-season) Superyacht service centre in the tropical southwest Pacific.

Denarau is established as a well known and popular Superyacht centre. It is used as the 'in-season' base for the region - several yachts have been recorded as sailing in and out of Fiji more than once in a season. However a number of superyacht captains commented on the lack of capacity – both services and dockage space.

Fiji should seek to strengthen and expand its Superyacht 'hub' status.

Focus on charter potential

Over FJD 3.5m of charter business was done by 6 superyachts in Fiji in 2018. This is the gross revenue from a total of 70 days of charter. However, several superyacht captains reported disappointment with the 2018 charter experience and frustration with the onerous charter permit requirements.

Part of the reason for this disappointment was a perceived lack of interest from charter clearing houses. Whether this was out of lack of knowledge about Fiji, or some other reason was not clear.

Less than a third of the 2018 visiting superyachts were listed as available for charter, however this still represents a significant opportunity. If, for example 10 superyachts chartered for three weeks each in a season, this would be a potential tripling of the total business with its direct charter permit revenues and the significant additional spending on fuel, maintenance, provisioning and transfers.

Building the charter business market in Fiji would require concerted international promotion of Fiji as a destination to charter brokers. Streamlining the charter permit process would also go a long way towards demonstrating that Fiji is open for charter business.

6 ECONOMIC IMPACT

Yachting - Direct Visiting Yacht Spending

The Fiji Visiting Yacht Survey undertaken obtained expenditure information from yachting operators. This data was then averaged to generate standard expenditure rates per yacht year and expanded to industry wide annual figures based on vessel call logs and known seasonality factors. Yachting tourism expenditure was broken down into three major components:

- Yacht Equipment
- Yacht Services
- Crew Living and Recreational Expenditures.

The total annual yachting expenditure breakdown ($34.9M) For the purposes of this analysis results of the <24m and >24m yacht survey results have been combined.

This represents approximately 1.5% of the 2011 total international travel and tourism direct expenditure within Fiji.

This expenditure was incurred over 4,473 individuals (comprising crew and guests), with an average annual spend per individual of $7,808. This is considerably greater than the average $2,490 per tourist per annum across all travel and tourism (2011 expenditure data).

Category	Item	Total Expenditure 2018
Yacht equipment & fuel	New outboard engines	FJD 42,368
	New dinghy or tender	FJD 63,529
	New genset or Engine	FJD 191,460
	New communications equipment	FJD 18,627
	New electronic equipment	FJD 30,127
	New electrical equipment	FJD 192,918
	New sails or canvas	FJD 291,315
	New general chandlery	FJD 1,181,294
	Fuel	FJD 3,171,106
	Total equipment & fuel	**FJD 5,182,745**
Yacht services	Yacht services marinas	FJD 3,477,025
	Yacht services haulout	FJD 500,672
	Yacht services storage	FJD 881,357
	Yacht services boatyard	FJD 637,216
	Yacht services rigging	FJD 131,044
	Yacht services engine	FJD 247,488
	Yacht services sails	FJD 203,133
	Yacht services electrical / electronic	FJD 68,541
	Yacht services detailing	FJD 284,669
	Yacht services metal fabrication	FJD 102,735
	Yacht services yacht agents	FJD 608,772
	Total Yacht Services	**FJD 7,142,649**
Crew/guest living and recreation expenses	Food and beverage purchasing	FJD 8,485,560
	Restaurant / bar	FJD 5,841,176
	Recreational activities	FJD 657,110
	Medical / dental	FJD 204,462
	Taxis / car rentals	FJD 320,448
	International and domestic travel & flights	FJD 5,757,417
	Phone / internet	FJD 197,572
	Accommodation / hotels	FJD 503,478
	Retail shopping	FJD 261,530
	Handicrafts / souvenirs	FJD 219,477
	Other	FJD 149,878
	Total living and recreation	**FJD 22,598,107**
Total visiting yacht spend		**FJD 34,923,501**

Yachting – Summary of Direct Economic Contribution

Direct expenditure data was supplemented by structured interviews undertaken with local suppliers of goods and services. This identified interactions and dependency of their businesses upon the international yachting sector.

Marinas and yacht maintenance firms engage Full Time Employees (FTE's) at wage rates well above the national median averages. Majority of FTE's are sourced from local communities and technical training and support is provided.

Snapshot of key findings are shown in the adjacent diagram.

Supplier feedback included:

- Marina employment is often contract based and varies with business size, ranging from 3 – 175 FTE workers
- Engineering firms in Fiji have developed their own techniques which include quality fabrication and varnish/ painting
- Additional staff are put on during peak seasons June-Oct
- The average wage of FTE is approximately FJD$5-10/hr
- Employees are typically sourced from local communities - few international employees
- Yacht crews spend big on quality food & beverages
- Fiji has developed a 'good reputation for supply of quality maintenance services, high grade fuels, excellent range and quality of food & beverage provisions'
- Fiji's marinas are well regarded in the region for 'accessibility, mooring security and range of shore side services'.

Employment Local community sourced labour	• Marinas - 175 FTE per *business • Maintenance - 65 FTE per *business • Tours & Accommodation - 5 FTE per *business • Food & Beverage - 57 FTE per *business
Average Wages Higher than Fiji Av.	• Higher pay rates than Fiji average • Skilled and in-training FTE • Marina and maintenance services between FJD$ 5-10/hr
Dependency Supply	• Marinas/maintenance services highly dependent 50-100% • Providers of F&B in proximity of marinas 40-90% • Marinas use 90% local sourced supplies • Maintenance services use 30% local sourced supplies

* Maximum numbers of Full Time Employees per business in each sector that have economic relationships with international yachting.

Yachting – Estimation of Total Economic Impacts

The data acquired through the surveys and structured interviews is insufficient to allow development of full Yachting Tourism Satellite Accounts to determine the direct value added associated with Yachting in a manner consistent with the published national TSA data.

As an alternative, the direct expenditure information obtained was:

1. Adjusted for tax estimations to approximate the Direct Yachting Tourism Demand.
2. This demand was adjusted by an estimate of the proportionate expenditure on direct imports to provide an estimate of the Direct Yachting Tourism Output.
3. Direct Yachting Output can be taken as an approximate measure of the direct economic contribution of Yachting to the Fiji economy.
4. This output can be further adjusted by an estimate of intermediate consumption captured within the expenditure to identify the overall Yachting Value Added to the economy.

The adjustments for tax and import leakage were assessed on the basis of the survey information received, site inspection/stakeholder engagement and professional judgement. It was estimated that 38% of the direct expenditure would be lost through leakage and tax adjustments.

A more detailed study of supply lines and accounting would be required to fully develop TSA tables and generate a firm estimate of direct economic output and value added provided by the yachting industry.

For the purposes of estimating the Total Economic Impacts a type II multiplier approach was taken. This multiplier represents

…the ratio of the value of initial investment against the total economic impact of the investment…

and captures both the indirect outputs and the induced outputs. The multiplier is applied to the direct expenditure to arrive at the Total Economic Impacts.

The Total Economic Impact is therefore made up of the sum of the Direct Yachting Output, the Indirect output and the Induced output.

Direct output		Indirect Output		Induced Output
The expenditure made by the tourist, government of similar agencies involved in tourism, providing goods and services, tourism generated exports or for tourism related investment in an area	+	Successive rounds of inter-business transactions results from the Direct Output e.g. purchase of supplies by a marina from a local store. Then the purchase of goods from the local store from another provider, etc.	+	The increase consumer spending resulting from the additional personal income generated by direct expenditure e.g. the owner of a marina may choose to go out for a meal as a result of receiving income from the marina

Total Economic Impact

Yachting – Discussion on Economic Impacts

Almost all of the $ 34.9m direct spending is foreign exchange paid in Fiji to Fijian businesses

Unlike other tourists, visitors on yachts generally do not pre-pay and book services prior to arriving in Fiji. All of their spending is done once they are in Fiji using foreign exchange.

The survey captured only spending paid to Fiji Businesses and did not include online orders or other transactions outside Fiji.

The multiplier effect means that every extra $ of this spending by visiting yachts stimulates $2.8 of total economic impact.

Yachting has created a healthy environment for upskilling Fijian labour

The growth of yachting in Fiji and its unique position in the Pacific has created significant demand for yacht maintenance and support services.

These services require a higher level of skill than other forms of tourism and has resulted in the development of a specialised and skilled workforce. Formal and informal training of labour has been driven by the need for yacht service suppliers to bring their competitiveness up to international levels.

As a result labour in the Fijian yacht service industry is generally on higher wage rates than other areas of tourism (and significantly higher than minimum wage). During structured interviews, several businesses expressed their concern about losing skilled staff and their commitment to retaining their staff through higher pay and ongoing training.

This development of a highly skilled workforce in yachting will have broader impacts on the Fijian economy as these workers migrate into other sectors.

Yachting impacts reach remote communities which otherwise do not benefit from tourism

Visiting yachts are now exploring almost all areas of Fiji. Many of these visitors are seeking to experience the more remote and isolated islands and to interact with the communities living there.

While the main spending is concentrated in the yachting centres, there is a disproportionate impact from even very small levels of spending and 'contribution' to these remote communities.

The reach of yachting in Fiji has been clearly identified in the surveys, but it has not been possible to quantify the spending and impacts in more remote areas. However a number of respondents and stakeholders have commented on the direct and indirect impacts of interaction between remote villages and visiting yachts and superyachts. These impacts include:

- direct spending for informal tours and activities
- access to safe anchorages in bad weather
- exchange of produce and essential supplies
- emergency and charitable support, and
- repairs of village equipment such as generators ad solar installations.

The increasing yachting demand is attracting new infrastructure spending

Infrastructure spending will help to provide additional capacity and sustain the long term growth in the sector. However there will also be significant additional economic impacts from the construction activity itself. These impacts have not been included in this study but represent a potentially major upside potential to the estimated FJD 60m total economic impact.

7 SWOT

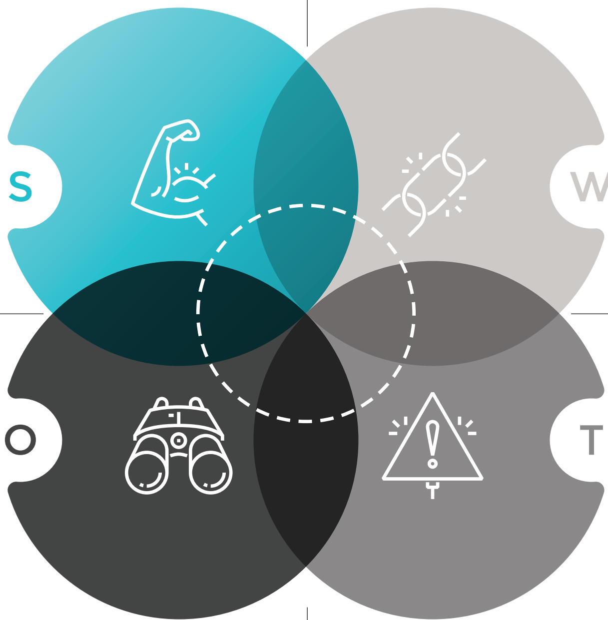
S W O T Analysis – Yachts Under 24m

Strengths

- Availability of excellent, popular and diverse cruising locations with good attractions
- Fiji located at crossroads of yacht migration routes – a meeting point of the established oceanic routes
- Good international air connections for crew changeover and guests access
- Reasonable costs for provisioning and yacht services
- Fiji's good cyclone resilience encourages year-round stays
- Good marina and service infrastructure with skilled labour force

Weaknesses

- Long cyclone seasons with very low levels of yachting activity
- Protracted arrival clearance formalities for foreign flagged yachts
- Lack of formal training and accreditation of workers for the yacht tourism sector – some experiences of poor quality work
- Protracted maritime infrastructure investment procedures
- Lack of high profile peak body representing yachting
- Limited government support to investments for yachting tourism
- Un-utilised potential of some yacht cruising areas
- Poor quality navigation charts



Opportunities

- Raise perception of Fiji as a full-season or multi-season destination
- Improve the understanding of the Fiji 'yachting product' to attract longer stays
- Capitalise on private sector and Government willingness to support and invest in new yachting infrastructure
- Raise Govt awareness & support for the positive impacts of yachting
- Lau as international port of entry for clearances
- Investigate the potential for more bareboat yacht charter – getting a yacht to Fiji is a major investment in time and money

Threats

- Increasing competition in yacht tourism from other Pacific Is markets
- Price Sensitivity to increases in fees and taxes
- Availability of suitably skilled / qualified workforce
- Strengthening FJD against other main currencies
- Increasing taxes against visiting yachts
- Bureaucratic and statutory service obstacles
- Pollution at the coastal areas and degradation of marine eco-systems
- Personal and property security for people on yachts
- Illicit substances smuggling image portrayed by media

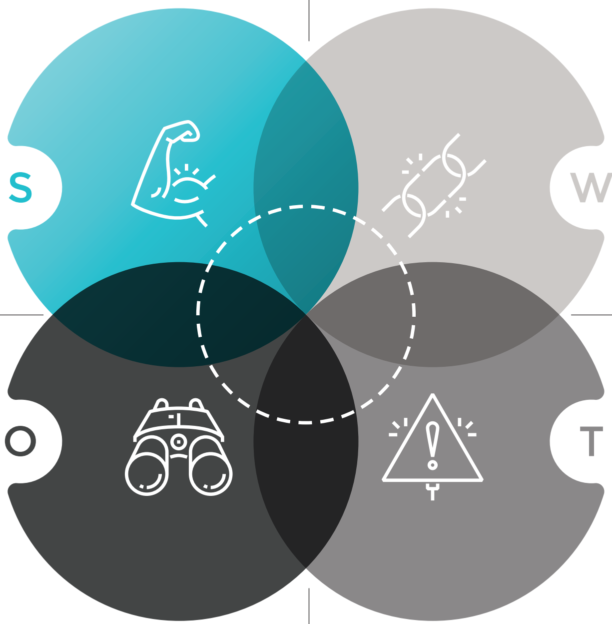
S W O T Analysis - Superyachts

Strengths

- Fiji's current status as a regional superyacht centre with high quality marina facilities
- Availability of accessible, extensive and diverse cruising areas
- Well established (and vocal) superyacht support service industry
- Fiji's ultra high-end tourism brand image
- Price Competitive for provisioning, fuel and services
- Good international connections for crew changeover and guest travel
- Currently very good security situation
- Ability to charter vessels while in Fiji

Weaknesses

- Long cyclone seasons with virtually no superyacht activity
- Protracted arrival clearance formalities for foreign flagged superyachts
- Lack of formal training and accreditation of workers in yacht tourism and industry sector – some experiences of poor quality work
- Onerous demands of the Fiji superyacht charter permit process
- Protracted maritime infrastructure investment procedures
- Poor Government understanding of the needs of superyachts
- Suva only place catering for superyacht servicing and breakdowns



Opportunities

- Reinforce Fiji's status as the primary superyacht destination in the southwest tropical Pacific
- Capitalise on private sector and Government willingness to support and invest in new yachting infrastructure
- Lobby for tourism policy supporting niche tourism markets such as superyacht visits
- Simplify and streamline superyacht charter permit process
- Promote Fiji to the superyacht charter destination clearing houses and brokers

Threats

- Too little capacity for superyacht dockage and services
- Increasing competition in yacht tourism from other Pacific Is markets
- Availability of skilled / qualified workforce
- Strengthening FJD against other main currencies
- Increasing taxes and more complex processes for superyachts
- Bureaucratic and statutory service obstacles
- Increasing fuel and power prices
- Pollution at the coastal areas and degradation of marine eco-systems
- Illicit substances (smuggling) image portrayed by media

8 STRATEGY FOR GROWTH

Recommended Initiatives to Support Growth

- Strategic initiatives for developing the yacht / superyacht sector should focus upon supporting growth, competitiveness and increasing market share of yachting tourism in Fiji.
- While Fiji has very suitable resources for yachting tourism the measurement of earnings from the sector is inadequate for tracking growth which is required especially where market development is the rational choice
- Development of differentiated markets for:
  - Yachting arrivals under 24 metres
  - Superyachts over 24 metres
- Marketing activities and decision-makers need to focus on neighbour countries as target markets and tourist origin markets which are growing quicker such as China and India which could be considered as potential for yachting tourism in the charter sector.
- Follow intensive Growth Strategy (Market Development)
- Decide to be a competitor in market
  - Marinas and moorings for international yachts under 24 m
  - Host diversified yachting events in Fiji for clubs and class
  - Create a Fiji Yachting Tourism Group
- Differentiation market strategy
  - Create a Fiji brand for Yachting and Superyachts
- Government funded marketing
  - Use the Yachting Tourism Group to lobby Govt.
- Offer product for all markets
- Utilise price/technical capacity (dry-dock marine services)
- Strong Fiji theme advertisements
- Maintain cost and price competitiveness
- Inbound demand from air arrival tourism to be used as targets for high-end charter guests at point of sale
  - Create an alliance with travel agencies, hotel groups and airlines.

Outcome	Increase period of stay	Increase numbers of yachts	Increase multiplier effect	Reduce barriers to entry	Better organised Industry
Establish Marina Industry Group	✓✓✓	✓✓✓✓	✓✓✓	✓✓✓✓✓	✓✓✓✓✓
Infrastructure Masterplan	✓✓	✓✓✓✓	✓		✓✓✓✓
Industry training & development	✓✓✓	✓✓	✓✓✓✓✓	✓	✓✓✓✓✓
Marketing & promotion	✓✓✓✓✓	✓✓✓			✓✓✓✓✓
Ports of entry	✓✓✓✓✓	✓✓✓✓	✓	✓✓✓✓✓	✓
Simplify charter	✓✓✓✓	✓✓✓✓		✓✓✓✓✓	✓✓✓
Simplify clearance	✓✓	✓✓✓		✓✓✓✓✓	✓✓
Establish managed cruising areas	✓✓✓✓✓	✓✓✓	✓	✓✓	✓✓✓✓
Statistics & data	✓	✓	✓✓✓✓	✓✓	✓✓✓✓✓

Initiative	Core elements	Action time frames
Establish Marina Industry Group	Mandate key industry to coordinate developments	Short term action 1-2 years
Marketing & promotion	Promote Fiji as a full/multi season yacht cruising destination	Short term action 1-2 years
Ports of entry	Expand international ports of entry to include Lau	Short term action 1-2 years
Simplify charter	Assist and develop charter market by smoothing permit processes	Short term action 1-2 years
Simplify clearance	Streamline and modernise advance NOA and arrival documentation	Short term action 1-2 years
Establish managed cruising areas	Create an identifiable product that covers Fiji as a global destination	Medium term action 3-5 years
Statistics & data	Enable cooperative agreements with statutory authorities . Industry to collect and analyse data	Medium term action 3-5 years
Infrastructure Masterplan	Consolidated 25 year national plan to address capacity and improvements. Planning and approvals processes.	Medium term action 3-5 years
Industry training & development	Institutional capacity strengthening through training and apprenticeships	Long term action 5-10 years


VG 199 TEMP

9 APPENDICES

Appendix A. Survey Expansion – Population Estimates

The **survey sample** is made up of the yachts and superyachts contacted through the above methods. The **population** is the total number of yachts that are known to visit Fiji – as defined previously.

Knowing the population will provide the basis for expanding the survey results. It also provides the opportunity to segment and re-weight the sample so that any biases in the sample can be corrected.

The definitive data for the number of visiting yachts in Fiji would expected to be recorded by the Fiji Revenue and Customs Service (FRCS). However data supplied by FRCS had inconsistencies and gaps.

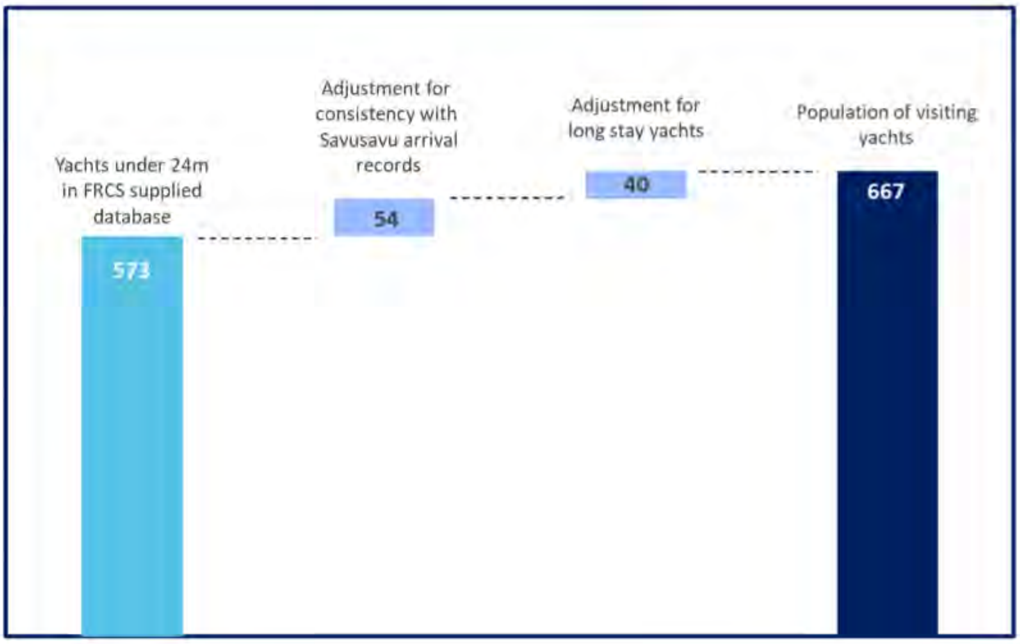
It was possible to use the FRCS data from their central database, updated with the recent arrival data from Savusavu, to provide an estimate of 2018 arrivals. This could was segmented by flag (country of yacht registration).

The estimate of 2018 arrivals was then increased to reflect an estimate of those yachts arriving prior 2018.

Given the inconsistencies and gaps in the data, there is some uncertainty in numbers of yachts under 24m. This more conservative approach to estimating population was therefore adopted for survey expansion. It is probable that the 2018 population of yachts under 24m is higher.

The FRCS database recorded 40 superyachts having cleared into Fiji. More recently Denarau marina and the superyacht agents reported a total of 54 (by 13 Nov 2018).

It is expected that all visiting superyachts would at some point use Denarau marina and/or the superyacht agents while in Fiji. Therefore their reported 54 yachts was selected the most reliable record of superyacht population over 2018.



Visiting superyachts in Fiji during 2018	54
Visiting yachts under 24m in Fiji during 2018	667
All visiting yachts in Fiji during 2018	714

Appendix A. Survey Expansion – Derivation of Expansion Factors

The surveys (yachts under 24m and superyachts) were carried out between 25th September and 19th October. Three reminders were sent out for the yacht survey and two reminders for the superyacht survey.

Over the course of the surveys, responses were monitored to check that the questionnaire was being interpreted correctly. Some minor wording adjustments were made during fieldwork to improve the questionnaire.

Yachts under 24m

For yachts under 24m the vast majority (over 80%) of responses were through the email contact.

Overall the response from the yachts under 24m was very good, representing 32% of the population. The population estimates were segmented by flag of vessel.

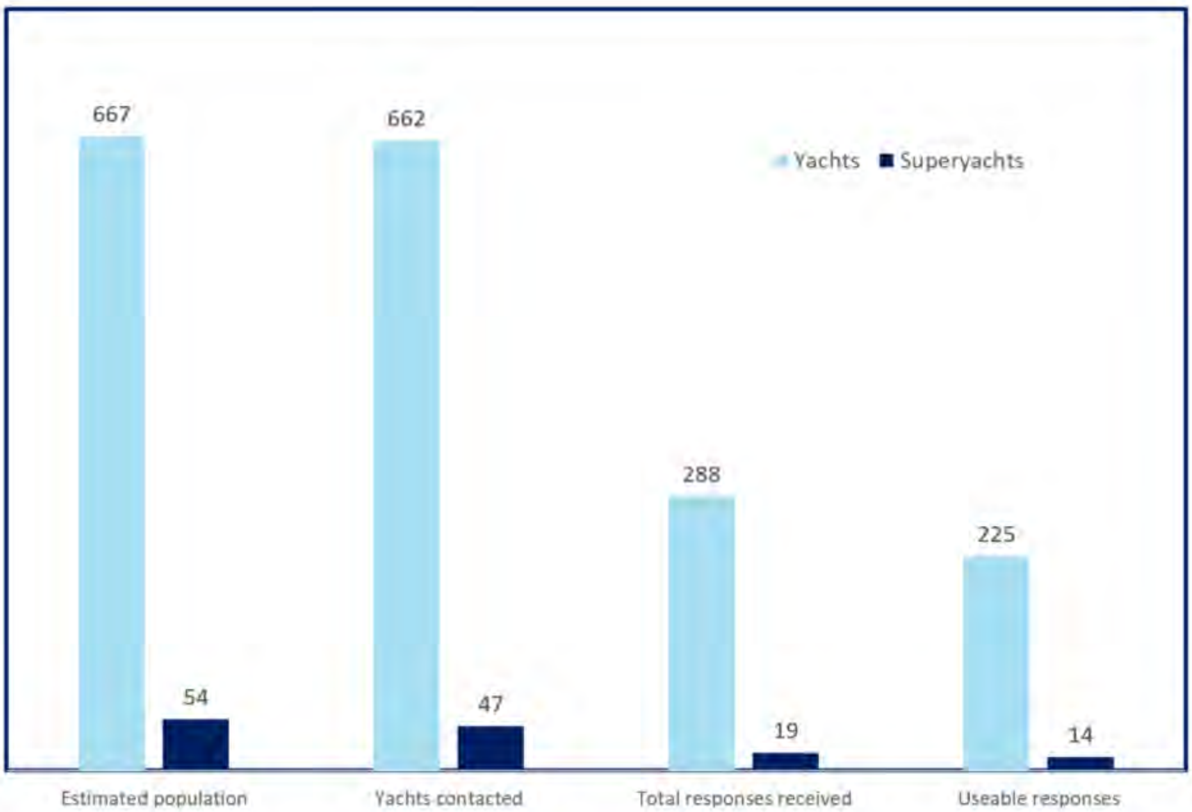
By grouping countries into 5 socio-geographic zones, 5 expansion factors were applied to the responses to remove bias and expand the sample up to the population level.

Superyachts

In contrast, half of the completed interviews for superyachts were carried out face-to-face.

While the response rate for superyachts looks good at 30%, the numbers are small and largely represent superyachts that were in Fiji during the fieldwork.

The most appropriate test for bias on the useable responses is by size of superyacht - flags are usually flags of convenience and are unlikely to correlate with owner or captain preferences. The numbers of vessels in three size categories in the population and in the response were compared and there was no significant bias. It was concluded that a single global expansion factor would be the most appropriate for superyachts.



Appendix B. Summary of Economic Impact

- Tourism plays a very significant role in the Fijian Economy. Yachting tourism represents a valuable contributor to the wider industry, generating much higher expenditure per tourist values than in other tourism based industries.
- The results of the surveys undertaken were utilised to identify Yachting Tourism expenditure and estimate associated economic output within the Fijian economy. The results were compared with other tourism industries contribution to the overall economy.
- The Fiji Government produces a System of National Accounts to capture the contribution of various industries to the economy. Tourism is considered a "hidden" industry as its inputs and outputs are typically captured by within the other industries (e.g. manufacturing, energy etc.) and the national accounts cannot distinguish between expenditure/activity that has been undertaken by a "tourist" and by a "local".
- Consequently, the Fiji Government periodically produces Tourism Satellite Accounts (TSAs), additional accounts aimed at capturing the distribution of tourism expenditure across industries within the broader System of National Accounts. The most recent publicly available TSAs are from 2011.
- TSAs typically consist of ten data tables to allow the identification of the gross value added by tourism activities. Starting from identifying expenditure the data tables manipulate and apply the data to ultimately determine the total economic output and Value Added of tourism as a whole.
- Yachting provides a portion of this total value added.

Tourism Expenditure
By type of product and type of tourist
Year ended December 2011
FJD [000's]

Products	Domestic Demand			International Demand	Total Demand
	Household Demand	Government Demand	Business Demand		
Tourism-characteristic products					
Accommodation services	10,710	3,633	8,223	408,576	431,142
Food serving services	3,137	2,683	5,024	131,910	142,754
Beverage serving services	1,031	473	802	74,978	77,284
Land transport services of passengers	37,322	1,104	2,846	14,101	55,373
Water transport services of passengers	14,491	2,293	2,229	7,776	26,789
Air transport services of passengers	47,238	19,268	78,392	490,281	635,179
Travel arrangement, tour operator and related services	6,506	445	10,544	111,252	128,747
Leasing or rental services concerning cars and light vans without operator	1,976	231	9,710	39,482	51,399
Recreational, cultural and sporting services	5,111	0	1,046	21,358	27,515
Total tourism-characteristics products	**127,522**	**30,130**	**118,816**	**1,299,714**	**1,576,182**
Tourism-related products					
Retail sales	113,205	4,171	103,922	192,976	414,274
Food	*77,906*	*653*	*26,493*	*18,005*	*123,058*
Beverages and Tobacco	*19,471*	*0*	*3,888*	*1,000*	*24,359*
Wearing apparel	*8,582*	*1,227*	*8,622*	*3,003*	*21,434*
Fuel	*5,998*	*2,277*	*62,774*	*4,770*	*75,820*
Handicraft	*0*	*0*	*0*	*161,652*	*161,652*
Others	*1,247*	*14*	*2,145*	*4,546*	*7,952*
Financial services	18	1	1	9,797	9,817
Gambling services	5	0	0	0	5
Education services	17,055	0	0	12,800	29,855
Total tourism-related products	**130,283**	**4,172**	**103,923**	**215,573**	**453,951**
Total tourism demand by type of tourist	**257,805**	**34,302**	**222,739**	**1,515,287**	**2,030,133**

Appendix C. Tourism Satellite Accounts (TSA)

Identify products purchased by visitors (tourism expenditure)

↓

Determine how much of each product is consumed by internal tourism

↓

Remove produce taxes, subsidies, margins etc. to determine domestic output consumed by visitors

↓

Determine what proportion this represents of total domestic output (Tourism Product Ratio)

↓

Identify other industries that support the product purchase

↓

Apply Tourism Product Ratio to each supporting industry to determine Direct Tourism Output of each industry

↓

Estimate the intermediate consumption required to produce this Direct Tourism Output

↓

Subtract intermediate consumption from Direct Tourism Output to determine gross Value Added

- The TSA allows for the observation of **DIRECT** output associated with tourism within an economy. But this is only part of the total economic activity associated with an industry.

Direct Output

The expenditure made by the tourist, government of similar agencies involved in tourism, providing goods and services, tourism generated exports or for tourism related investment in an area.

Indirect Output

Successive rounds of inter-business transactions results from the Direct Output

e.g. Purchase of supplies by a marina from a local store. Then the purchase of goods from the local store from another provider, etc.

Induced Output

The increase consumer spending resulting from the additional personal income generated by direct expenditure

e.g. the owner of a marina may choose to go out for a meal as a result of receiving income from the marina.

- **Indirect** and **Induced** output estimates typically require use of Input-Output (I-O) models or Computable General Equilibrium (CGE) Models to take the TSA data and estimate the other components.
- 2017 TSA accounts for FIJI (WTTC, 2018) identified:
  - GDP Direct Contribution of Travel and Tourism – **FJD 1,476.5M (14.4% of total GDP)**
  - Indirect and Induced Contribution of Travel and Tourism – **FJD 2,642.9M (25.9% of total GDP)**
  - Total Contribution of Travel and Tourism – **FJD 4,119.4M (40.3% of GDP)**

Appendix D. Yachting -Direct Economic Contribution

Supplier Category	Dependency	Employment	Supply Source	Competition and Growth
Marinas	Depending on the presence of additional services (restaurants/ bars) international yachting may account for upwards of 50% of business revenue. However, some Marinas focus predominantly on local yachting	• Marina employments varies with business size, ranging from 3 – 175 FTE workers. • Employment is seasonal and often contract based • Average wage of FTE is approximately $5 p.h. • Employees are typically sourced from local communities. Few international employees	Supplies for marine operations are locally sourced. Approximately 10% of supplies are imported Major costs are: • Wages • Maintenance • Utilities	• Competition is relatively low and due to geographic location of marinas and target sectors. • Continued growth is anticipated
Yacht Maintenance	Directly dependent on the demand for yachting. Key services: • Superyacht agency • Yacht maintenance & repairs • Engineering • Painting and varnishing • Marine equipment retail • Outboard engine sales • Yacht brokerage	• Employment requirements vary between 5 – 65 FTE, does not tend be seasonal. • Average wage is between $5 - $10 per hour. • Workers are typically sourced from local communities with few international employees	The majority of stock sourced (approximately 70%) is imported. Major operational costs are: • Wages • Stock • Utilities	• There is a relatively small number of players within the market. However competition within the market is high.
Accommodation and Tour Agents	Yachting represents a relatively small market (approx. 5%) in comparison to other tourist groups (e.g. cruise liners, flights)	Typically 2-5 FTE individuals with casuals as required. Average wages is between $5 - $7 per hour Workers are typically source from local communities	All supplies are sourced locally. Major costs: • Wages • Charter/Rental	• Competition is generally low. • Revenues are typically seasons and weather dependent
Food and Beverage	• Significant numbers of yachts either order supplies from local business or visit shops/restaurants. • Providers in close proximity to marinas may generate between 40% - 90% of their revenues from yachting tourism	Employment varies with size of the business: 5 – 57 FTE. Average wage is between $5- $7 per hour. The majority of employees are sourced from within the local community	Stocks and supplies are a mixture of local and imported goods (40% - 60% imported). Importing excise is high (up to 30%) Major operational costs are: • Stock • Wages • Utilities	• Growth has been moderately strong over the last decade, mostly due to increasing tourism.

Appendix E. Yachting - Indirect and Induced Output

- The indirect and induced economic contribution of yachting represents how the $21M of annual direct economic output would flow through to the rest of the Fijian economy through subsequent rounds of expenditure in both tourism related and un-related industries/transactions.
- Estimation of such contributions is typically estimated through I-O or CGE model analysis in conjunction with TSA data tables.
- The 1995 I-O model of the Fiji economy was not available for the purpose of this evaluation and generation of project specific model was considered beyond the scope of this project. Further, the absence of yachting specific TSA tables, meant that standard modelling of indirect and induced economic outputs were unable to be modelled. Consequently, the analysis adopted two approaches to estimate the potential indirect and induced economic contributions, utilising the available data:

1. Consideration of available industry output multipliers detailed within available literature
2. First principles high level estimation of output multipliers.

What Are Output Multipliers?

Economic multipliers are a mechanism of estimating the additional direct output generated within an economy as a result of an initial investment and then comparing that to the expected indirect and induced output:

the ratio of the value of initial investment against the total economic impact of the investment

These ratios can be used to estimate that total contribution of an economy without the need to undertake economic modelling. There are many types of multipliers commonly used within tourism analysis:

- **Output multipliers** – The amount of business output, including intermediate consumption, created by an extra unit of tourism expenditure
- **Income multiplier** – the relationship between and additional unit of tourist spending and the changes which results in the level of income in the economy
- **Employment multiplier** – The ration of direct and indirect employment generated by an additional tourism expenditure to the direct employment alone.

For example, imagine a single dollar is invested back and forth between two people. Assume that as part of every transaction, 50% of the investment value is lost in tax. The original investment is $1. The second investment is 0.5 and so on as follows: 0.25, 0.13, 0.06, 0.03, 0.02 etc. The total economic impact associated with the additional $1 investment would be $2. The initial investment was $1. Therefore, the investment multiplier is 2.

- Within Fiji a series studies have previously been undertaken to estimate overall travel and tourism multipliers.
- The ratio of the direct economic output and the total direct and indirect economic impacts is called a Type I multiplier. The ratio of the direct economic output and the total direct, indirect and induced economic impacts is called a Type II multiplier
- The Type II multiplier for travel and tourism has averaged consistently between 2.7 and 3.0 since 2002.
- This suggests that for each dollar of tourism investment and additional two dollars of economic activity are subsequently stimulated throughout the economy.
- This consistency can partially be explained through the use/re-use of the same I-O models and associated assumptions in deriving how secondary rounds of investment flow through the economy.
- It is noticeable that the estimates of Direct Output are more variable. This likely reflects:
    - the economic downturn within Fiji post 2008
    - the dependency of tourism expenditure on global economic conditions
    - shifts in the organisations undertaking the analysis and the difficulties in defining categories of tourism products/expenditure in a consistent manner.
- In the absence of a Yachting specific TSA or access to existing I-O models, application of the average 2017 Type II multiplier would suggest a total economic output as a result of yachting of $59M per year (a net present value of $909M over 30 years).

Fiji Travel and Tourism Output Multipliers (FJD Million)

	2002*	2008*	2014**	2016**	2017**
Direct Output	1,306	1,634	1,069	1,292	1,477
Indirect Output		1,143			
Induced Output		3,219			
Total Economic Output	3,481	4,853	2,894	3,599	4,119
Type 1 Multiplier		1.7			
Type 2 Multiplier	2.7	3.0	2.7	2.8	2.8

*Source: Fiji Bureau of Statistics
**Source: World Travel and Tourism Council (WTTC)[7]

- It is considered likely that yachting is likely to generate higher than average travel and tourism Type I and Type II economic multipliers as:
    - With the exception of yachting equipment and fuel, the majority of yachting investment occurs within industries in which leakage is comparatively low. Supplier surveys undertaken indicate:
        - A low reliance upon imported goods
        - Wage costs representing the highest operating expense
        - A high reliance upon local employment
        - Location of marinas in remote communities creating increased competitive advantage to local suppliers.
    - Investment profiles that differ from average tourism expenditure investment. In particular, a low level of investment within accommodation and air-travel industries, industries in which international booking a reservation are heavily used, directing investment out of Fiji.
    - The yachting sector has a very different expenditure profile to average tourism expenditure with significantly higher proportions of investment within the Food and Beverage sector and Water Transport services, with the greatest reductions occurring within the Accommodation services and Retail sectors.

Average proportion of tourism expenditure by sector

	Travel & Tourism*	Yachting**
Accommodation services	21%	1%
Food and beverage services	11%	41%
Air and Land transport services of passengers	34%	17%
Water transport services		
Lease or rental services	1%	35%
Recreational, cultural and sporting services	0%	
Retail sales	3%	1%
Other	1%	2%

*Based on Fiji Bureau of Statistics 2011 TSA
** Based on 2018 survey results

- Investment with the Water Transport services is likely to generate strong local circulation through supplies and employment provided through marinas. However, maintenance requirements are likely to lead to greater leakage due to the dependency of imports in the second round of economic transactions. Foods and beverage services are more variable with meat and alcohol typically imported. However, this is offset against locally sourced fish and vegetable products.
- In the absence of more detailed breakdown of revenue streams it is difficult to quantify the extent of shift in multipliers as a result of this altered distribution of investment. It is considered likely that the yachting industry generates a higher multiplier.
- However, it is acknowledged that the reported tourism output multipliers are already relatively large, particularly so for a county such as Fiji which typically has a relatively high marginal propensity to save for individuals (53% in 2008 (Fiji Bureau of Statistics).
- A high propensity to save typically lowers the economic multipliers associated with investment as greater leakage occurs as individual save rather than spend. However, again this may be partially offset by the local considerations associated with yachting. The nature of yachting expenditure is such that it is often within isolated and more remote communities which typically have higher marginal propensities to consume due to limited supply of goods and services, coupled with higher transportation costs, increasing associated economic multipliers.
- For the purposes of this assessment and in the absence of further information, it is considered that 2.8 is likely to represent a reasonable upper bound on the Type II economic multiplier for yachting.

A First Principles Approach

As alternative to I-O or CGE models, more basic estimates of multipliers may be obtained applying simplified Keynesian or Ad Hoc tourism multiplier equations. A simplified Keynesian formulation is:

$$K = A \times 1 / (1 - B \times C)$$

Where:

K = Multiplier

A = The proportion of expenditure remaining after the deduction of leakage from the initial investment.

B = The proportion of income spent by locals to purchase goods and services within the local economy (ie. the marginal propensity to consume (MPC) locally)

C = The proportion of expenditure by local people that accrues as income (or value added) in the local economy.

For the purposes of this high-level evaluation it was assumed that:

- **A** = 65% (based on the proportion of the Direct Yachting tourism output estimated relative to the total estimate expenditure)
- **B** = 60% (based on the 2008 estimate of marginal propensity to save (MPS) (MPC = 1- MPS), and the likelihood that his under-estimates the local propensity to consume in locations visiting by yachts
- **C** = 80% (based on the results of the supplier survey suggesting the majority of secondary investment is typically local)

This returns a multiplier of **1.25**. It is considered that this is a conservatively low estimate that would represent a lower bound of the economic multiplier generated by the yachting industry. Under this multiplier the yachting industry would generate a total economic output of **$26.25M** per year, equivalent to a net present value of **$406M**, discounted over 30 years.

- **Fiji:** Garden City Business Park, Grantham Road, Suva, Fiji
- **Timor-Leste:** 2nd Street, Palm Business & Trade Centre, Surik Mas, Dili
- **Pakistan:** 95-E/1, Syed Shamshad Haider Road, Hali Road, Gulberg III, Lahore, Pakistan
- **Sri Lanka:** No. 349, 6/1, Lee Hedges Tower, Galle Road, Colombo 03, Sri Lanka
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This publication has been funded by the Australian Government through the Department of Foreign Affairs and Trade. The views expressed in this publication are the author's alone and are not necessarily the views of the Australian Government.