

An Economic Benefits Study of Sports Tourism in Fiji: A Case Study on the Fijian Drua 2023 Season



FIJIAN DRUA RECORD LARGEST ATTENDANCE FOR SUPER RUGBY PACIFIC 2022, PREPARATIONS ALREADY UNDERWAY FOR DRUA-CHIEFS IN LAUTOKA



ERC

Economic & Financial Analysis

REPORT SUMMARY

Report Context

This report presents an economic evaluation of the potential benefits of a sports tourism strategy for Fiji, using as a case study the conduct of Super Rugby games in Fiji in the 2023 season – with 6 games being hosted at either Churchill Park or HFC Bank Stadium . The research was based on information from a survey of attendees, and data provided by Fijian Drua, and applies an economic model of Fiji to determine the extent of the benefit.

Core Results

- The games had an estimated total of 58,942 attendances, with 26,333 individuals attending at least one game. 21% of general spectators were visitors to Fiji.
- The total direct expenditure associated with attendees and operating the games was estimated at FJD\$67.1 million
- 84% of the visitor spectators either came for attend a game, or extended their stay in Fiji as a consequence of attending a game – and as such the 2023 Fijian Drua Super Rugby season involved impacted tourism of 4,676 visitors (including participants) and created 40,328 overseas visitor nights that would not occur otherwise.
- Overseas visitors respondents who attended a game spent an average of FJD\$6,837 during their visit or visits.
- Almost 20% of Fijian residents who attended a game indicated they would travel out of the country to attend games if not for the local season.
- The estimated expenditure associated with this created and retained tourism, and the hosting of the games was FJD\$18.1 million (or 27% of the total spend).
- This increase in expenditure is modelled as generating FJD\$11.5 million of new incomes (or contribution to Gross Domestic Product) and 242 full time equivalent jobs in Fiji.
- The hosting of the games also benefits tourism infrastructure through generating domestic tourism outcomes, estimated at 20,970 visitor nights and a spend of FJD\$2.35 million.
- The wellbeing benefit for Fijians of the local access to these games is estimated as FJD\$21 million. 83% of Fijian residents agreed or strongly agreed they enjoyed attending (75% strongly agreed).
- The hosting of the series, especially with a program over future years, will have longer term benefits for Fiji.
 - 90% of visitors surveyed indicated they are likely to attend games in 2024, and 95% indicating they would recommend attending to friends and colleagues.
 - Increased occupancy and spend will directly benefit investment in visitor accommodation and general hospitality – and provide a more general stimulus to GDP growth.

PROJECT OVERVIEW AND OBJECTIVES

Background

This report presents an economic evaluation of the potential benefits of a sports tourism strategy for Fiji, using as a case study the conduct of Super Rugby games in Fiji in the 2023 season. Sports tourism – from global level events such as the Olympic Games and World Cups (in multiple sports), to participation in national competitions (such as the Super Rugby competition) bring benefits in attracting visitors who would not otherwise visit the country, and they spend money providing immediate benefits, and also build the brand of the country as a tourist destination. They also attract dollars from the competitors and participants, and corporate dollars in sponsorships, and direct spending (with opportunities to build business relationships which have a longer-term benefit)

The 2023 Super Rugby Pacific season was the 28th season of Super Rugby, an annual rugby union competition organized by SANZAAR between teams from Australia, Fiji, New Zealand, Samoa and Tonga over the period February 2023 –June 2023.

The Fiji Rugby Union's domestic team, the Fijian Drua, having previously competed in the Australian National Rugby Championship from 2017 to 2019 were a new addition to the Super Rugby series competition in 2022.

In 2020, and 2021 the competition was impacted by the COVID-19 pandemic, but has since returned to a more standard format.

Objectives

The primary objective of this study is to provide an economic impact evaluation of the Super Rugby Events hosted in Fiji in 2023 – as an example of what sports tourism strategy can achieve.

An economic benefit cost evaluation involves reviewing the jobs and incomes benefit of an event. Some of these benefits will be direct and tangible, while others will be indirect and less tangible, but equally as important.

The tangible benefits include incremental tourism outcomes (i.e. visitors, visitor night, and spend), retained spend (Fijian's who would travel elsewhere if not for these events) and external funding of the event.

The intangible benefits potentially include the wellbeing impact for the local community (including impacts on national pride), stimulus of repeat tourism, development of tourism brand, and promotion of local business.

The output of the project will be a report focusing on estimates of economic value of the events, including direct and induced impacts relating to Gross Domestic Product, employment, employee compensation and direct taxes. It will also consider the other benefits noted above.

Pages 1 to 6 provide the study context, while pages 7-17 provide the detail re parameters, and the methodology employed.



Barry Burgan has undertaken this study on behalf of Economic Research Consultants Pty Ltd. This study, while embodying the best efforts of the investigator, is but an expression of the issues considered most relevant, and neither the individual nor associated organizations can be held responsible for any consequences that ensue from the use of the information herein

Tourism in Fiji

Tourism is a significant contributor to the Fiji economy, with direct tourism value added in 2019 of FJD\$1.13 billion¹. This report provides as context the outcomes for 2019 (given that 2020-2021 were significantly impacted by Covid and global travel restrictions), with the following being the other major outcomes for 2019:

- Gross output - \$3.0 billion
- Intermediate input - \$1.9 million
- Fixed capital formation of \$192 million
- Employment 67,100, Compensation of employees \$546 million

This direct tourism value added represents 11.3% of total Fiji Gross Value Added. Figure 1 demonstrates the growth in global tourism over the last 30 years. Figure 2 demonstrates the impact of COVID on outcomes in the last few years, and the recovery that has emerged post 2022.

Figure 1: Historical trends in International Tourism Arrivals

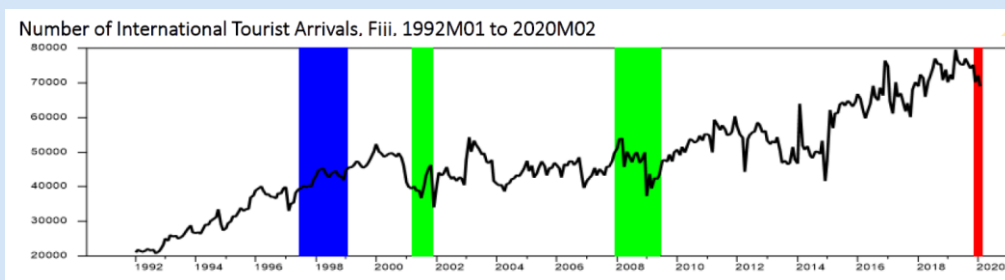


Figure 2: COVID impacts on International Tourism Arrivals

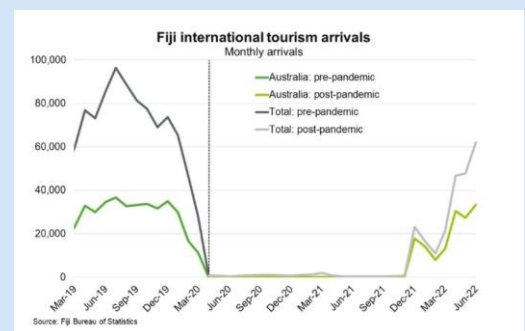
Other studies indicate that tourism contributes about 30%-40% of GDP². These estimates are based on recognising tourism being a major export, and as an exogenous shock to final demand, attributing the supply linkages within the economy to the direct tourism output estimates.

Rukmani Gounder (Professor of Development Economics Massey University)³ indicated there was overwhelming support in favour of Tourism-led Economic Growth (net transmitter of shocks) in Fiji, reporting that tourism is Fiji's main revenue earner (38% of GDP) and supports over 118,000 jobs (again these estimates are based on

modelling recognising supply chain linkages, and Gounder identifies the major local supply chain flow-on benefits being to Agriculture, Manufacturing, Building and Construction, Cultural industries, and other Services sectors.

Gounder also highlights the tourism sector's vulnerability due to both domestic and external shocks from political instability, the 2001 US Recession, the 2007-2008 GFC, climatic disasters such as cyclones and flooding, and COVID-19. These events, some of which are highlighted in Figure 1, have posed significant economic challenges.

These observations confirm the validity of the modelling approach applied in this study, but also the importance of sports related tourism as a factor that is likely to provide an alternative driver for demand and provide some diversification of markets benefit.



1. Fijian Bureau of Statistics, Fiji's Direct Tourism Contribution, 2021, December 2022.
2. <https://www.exportfinance.gov.au/resources/world-risk-developments/2022/july/fiji-strong-tourism-recovery-boosts-growth-prospects>
3. Presentation to the Pacific Update (Australian National University and The University of the South Pacific) in June 2022 entitled "Tourism and economic growth linkages: Economic responses and recovery in Fiji"

Fijian Drua – Home Matches

This evaluation considers the economic contribution of 6 home games Fijian Drua participation in the 2023 Super Rugby Series. The 6 games resulted in 5 wins and 1 loss, which is likely to enhance the value to local supporters.

- | | |
|--|-------------|
| 1. Round 3 - March 11th - vs Crusaders (Churchill Park) | Win 25-24 |
| 2. Round 6 - April 1st - vs Rebels (HFC Bank Stadium) | Win 38-28 |
| 3. Round 10 - April 29th - vs Blues (Churchill Park) | Loss 14- 30 |
| 4. Round 11 - May 6th - vs Hurricanes (HFC Bank Stadium) | Win 27-24 |
| 5. Round 14 - May 27th -vs Moana Pasifika (Churchill Park) | Win 47-46 |
| 6. Round 15 - June 3rd - vs Reds (HFC Bank Stadium) | Win 41-17 |

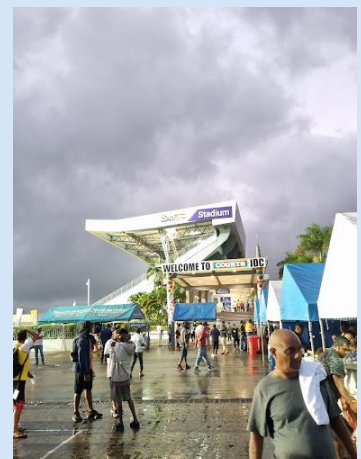


The games were conducted in two regions:

Churchill Park, Lautoka (Western Fiji)



HFC Stadium, Suva (Central Fiji)



Core outcomes of the Fijian Drua 2023 Season

Economic Benefit/Impact:

5,552 overseas visitors attended as spectators to at least one game in the Fiji Drua Season (9,936 attendances). Importantly 4,676 of these visitors had visits that were impacted because they attended a game. 971 overseas visitor participants attended a game. In total these visits created 40,328 visitor nights in Fiji.

Visitors spent an estimated FJD\$5.6 million in attending games. Additionally, some Fijians expressed their intent to travel abroad to attend games if they were not held locally, amounting to estimated foregone spend of \$4.5 million. There was also an estimated \$8.0 million in participant-created expenditure, brings the total estimate of created expenditure to \$18.1 million.

This expenditure stimulated Fiji's Gross Domestic Product through direct and induced affects of \$11.5 million and created 242 new full time equivalent job opportunities for Fijians.

The economic impact of the event is driven by the proportion of the economic activity that can be considered new to the economy, after allowing for the transfer of activity from other sources. This includes visitors who came because of the event, or locals who would travel outside for alternative experiences in the absence of these type of events. It includes the direct and induced impact on incomes (GDP) and employment.

The level of activity of the event is estimated as supporting expenditure of \$67.1 million. This represents activity, while **the benefit of hosting the event can be considered as the sum of the incomes generated and the wellbeing outcomes – or \$32.5 million** Note that the estimated of economic activity (the expenditure footprint of the event) and the economic impact (new incomes created directly and induced in the rest of the economy) are different paradigms and are not additive. The economic impact is the measure that is consistent with national accounting measures.

Economic Activity:

The Fiji Drua Season in 2023 recorded an estimated 58,942 attendances at games. There were an estimated 26,333 people who attended events (an average of 2.2 attendances per person).

The games in total generated gross expenditure estimated at \$67.1 million – \$40 million through the spend of overseas spectators, \$20million through the spend of local spectators and a further \$8.0 million spent by participants).

This expenditure produced employment opportunities for 21,000 people (520 full time equivalent jobs)

Fiji Resident Well Being Outcomes:

18,839 Fijians attended a game as a spectator at least once , for a total of 47,064 times attendances, while a further 971 attended as participants. Fijians spent a total of \$8.0 million in doing so.

99% of Fijians said attending a rugby game represented fair to good value (54% very good value) relative to what it cost them.

The use and non-use value created in this context, known as consumer surplus, over and above what was spent is estimated at \$21 million.

2023 FIJI DRUA SEASON – ECONOMIC FOOTPRINT AND ECONOMIC BENEFIT SUMMARY

Table 1a summarises the core metrics and sources of the direct outcomes or level of activity associated with the 2023 Fiji Drua Season.

Table 1a: Contribution to Economic Activity (Gross Direct Impact)

	<i>Local Spectators</i>	<i>Visitor Spectators</i>	<i>Part-icipants</i>	<i>Total</i>
Game attendances	47,064	9,936	1,942	⇒ 58,942
	↓	↓	↓	↓
Attendees	18,839	5,552	1,942	⇒ 26,333
	↓	↓	↓	↓
Associated/Gross Spend (\$m)	\$19.55	\$39.53	\$8.01	⇒ \$67.1

The events and tourism literature advocates evaluating the economic contribution of net benefit of events using measures consistent with national accounting principles – including Gross Domestic Product (or incomes created in terms of Compensation of Employees and Gross operating Surplus) – in that adding expenditure of different sectors overstates the size of the economy. In addition, the literature supports the acknowledgement in event assessment of recognising only the created expenditure or final demand (acknowledging that some of the spend will be transferred from other activities. Finally, it recognises that the created expenditure has supply chain impacts and so supports the inclusion of the whole of economy outcomes. The result of recognising this combination of factors is presented in Table 1.5. In short the table presents the estimate increase in incomes and employment within Fiji as a consequence of the Fijian Drua games in 2023.

Table 1b: Economic Benefit (Net Impact)

	<i>Visitor Attendees</i>	<i>Retained expenditure</i>	<i>Part-icipants</i>	<i>Total</i>
Created Visitors	4,676		971	⇒ 4,676
	↓		↓	↓
Created visitor nights	40,328		2,913	⇒ 40,328
	↓		↓	↓
Created Spend (\$m)	\$5.6	\$4.5	\$8.0	⇒ \$18.1
	↓	↓	↓	↓
Impact on Gross Domestic Product (\$m)	\$3.5	\$2.9	\$5.0	⇒ \$11.5
Impact on Employment (person years)	74	58	110	⇒ 242

Attendee Characteristics

Survey Outcomes (Table 2)

- An online survey of attendees attracted 128 responses. 6 did not provide information on place of residence. Of the balance 103 were general spectators, 6 were guests on a corporate ticket, providing 109 in scope respondents. The others were official or rugby employees or working at the game. The core characteristics of spectator attendees derived from this survey are summarized in Table 2.
- The games contributed to international tourism outcomes, with 53% of overseas residents coming to Fiji because of the game for all their visits, 21.6% coming for some of their visits, and 16.8% extending their stay.

- In addition, the games in Fiji generate domestic tourism, with 46% of survey respondents indicating that they attended a game outside of the region of residence.

Spectator Attendances (Table 3)

- The Fiji Drua Season organizers indicate that on average, there were 9,500 attendees at each game. This is used as the base for spectator attendances, dividing by the average number of games attended to identify the number of individuals.

Participant Attendances (Table 4)

- Fiji Drua Season organizers provided the following estimates of participants and it is assumed they each stayed for three days. It is further assumed there would be an equal number of local participants involved.

Estimated Expenditure Associated with Attendance (Tables 5 and 6)

- The survey asked respondents to identify their spend associated with attending the event. The average spend per in-scope respondent (i.e. spectators) is as below. Average spend of participants was estimated based on data from Fijian Drua.

Table 5: Average Spend of Spectator Respondents

	Fiji Resident	Overseas visitor	Total Attendees
Game Tickets	\$370	\$567	\$406
Game/Team merchandise	\$196	\$284	\$212
Meals, food, drink at the game	\$105	\$164	\$116
Meals, food, drink at other places during your trip	\$193	\$924	\$327
Travel to Fiji (if from overseas)	\$274	\$1,984	\$586
Transport in Fiji	\$142	\$561	\$218
Accommodation	\$260	\$1,455	\$478
Any other expenditure	\$140	\$897	\$278
Total	\$1,679	\$6,837	\$2,621
# in group	4.06	2.5	3.8

Table 2: Core survey parameter estimates

	Residence of respondent					Total
	Central	Northern	Western	Rotuma	Overseas	
Number of respondents	61	4	36	1	20	122
In scope respondents	53	4	32	1	19	109
Proportion from survey	48.6%	3.7%	29.4%	0.9%	17.4%	100.0%
Average Games Attended	2.6	2.5	2.3	3.0	1.8	2.4
Suva	1.7	0.8	0.5	2.0	0.5	1.1
Lautoka (Churchill Park)	0.9	1.8	1.8	1.0	1.3	1.3
Proportion who attended game outside region of residence	51%	100%	28%	100%	46%	45.6%
Main reason for visit to region of game (if from out of region) (all visits)	57%	100%	53%	100%	58%	57.8%
Main reason for visit to region (some visits)	23%	0%	31%	0%	24%	24.4%
Main reason for visit to Fiji (all visits)					52.6%	
Main reason for visit to Fiji (some visits)					31.6%	
Proportion who stayed longer because of attending the game					15.8%	
Length of stay longer					3.00	

Table 3: Core attendance outcomes – Spectators

	Residence of respondent						Total
	Central	Northern	Western	Rotuma	Fiji Residents	Overseas	
Estimated Attendances	27,716	2,092	16,734	523	47,064	9,936	57,000
Estimated Attendees	10,492	837	7,335	174	18,839	5,552	24,391
Total visitor Nights	13,272	2,092	5,258	349	20,970	51,184	72,154

Table 4: Overseas Participant numbers

	Visiting Teams	Visiting broadcast ers	Visiting Match Officials	Visiting Fans	Total
Number	245	63	28	635	971
Length of stay	3	3	3	3	3
Created visitor nights	735	189	84	1,905	2,913

Table 6: Average Spend of Participants

	Total Visitors
Game Tickets	\$120.0
Meals, food, drink at the game	\$74.8
Meals, food, drink at other places during your trip	\$524.3
Travel to Fiji (if from overseas)	\$1,500.0
Transport in Fiji	\$57.1
Accommodation	\$350.0
Any other expenditure	\$1,500.0
Total	\$4,126.2

Estimating Economic Footprint of the Fiji rugby

Estimating Event Related Expenditure:

The average expenditure per respondent is divided by the number of people in the group covered by the estimated expenditure and then multiplied by the number of spectators and participants respectively to estimate aggregate expenditure (\$ million). Game operation spend is assumed to be 50% over the ticket revenue estimate to allow for other sources of funding (e.g. sponsorship). The local participants are assumed to spend 75% of what is spent by locals, for everything but travel to Fiji (assumed to be zero). The results are presented in Tables 7 and 8.

Table 7: Aggregate spend linked to Fiji rugby attendance - Spectators (\$m)

	Fiji Resident	Overseas visitor	Total Attendees
Operations spend	\$5.82	\$4.72	\$10.54
Game/Team merchandise	\$2.06	\$1.57	\$3.63
Meals, food, drink at the game	\$1.10	\$0.91	\$2.01
Meals, food, drink at other places during your trip	\$2.02	\$5.13	\$7.16
Travel to Fiji (if from overseas)	\$2.87	\$11.02	\$13.89
Transport in Fiji	\$1.49	\$3.11	\$4.60
Accommodation	\$2.73	\$8.08	\$10.81
Any other expenditure	\$1.46	\$4.98	\$6.45
Total	\$19.55	\$39.53	\$59.09

Table 8: Aggregate spend linked to Fiji rugby games - Participants (\$m)

	Visitors	Local	Total
Game operations	\$0.17	\$0.09	\$0.26
Meals, food, drink at the game	\$0.07	\$0.05	\$0.13
Meals, food, drink at other places during trip	\$0.51	\$0.38	\$0.89
Travel to Fiji (if from overseas)	\$1.46	\$0.00	\$1.46
Transport in Fiji	\$0.06	\$0.04	\$0.10
Accommodation	\$0.34	\$0.25	\$0.59
Any other expenditure	\$1.46	\$1.09	\$2.55
Total	\$4.06	\$1.91	\$5.97

Estimating Employment Outcomes

- Employment outcome are based on the aggregate spend estimates from Tables 7 and 8, with the estimated outcomes and the assumptions applied as per Table 9.

Table 9: Direct employment outcomes associated with aggregate spend

"Direct Rugby " Total Employment				Total Other Direct Employment			
Category	FTE	People	Notes re assumptions	Category	FTE	People	Notes re assumptions
Administration	21.6	51	FTE - a assumed 25% of Games Operation spend from previous table and other services ratios applied from economic model People - assumed 30% FT and 30% for 3 months, and 40% for 6 weeks	Accommodation	107.0	5,565	FTE - Attendee spend multiplied by propn of average wage in accommodation sector from economic model People - assumed 1 week on average employment derived
Business admin support (marketing etc)	82.2	173	FTE - assumed 25% of Games Operation spend divided by employment ratio to turnover in business services sector from the economic model People - assumed 30% FT and 70% for 3 months	Food and Drink (external venues)	75.5	3,927	FTE -Modelling of total attendee spend on tickets, assumed that 60% outside the game venue, and employment to turnover ratio as per the Food Service sector (IO table) People - assumed average of 1 week worth of employment per person
Game production	54.8	1,900	FTE -Assumed 50% of Games Operation spend from previous table, plus 40% of merchandise. Employment ratio as other services sector in economic model. People - assumed average of 1 1/2 week's worth of employment per game, and same people employed across all games	Other	170.9	8,884	FTE - Attendee other spend (transport, retail etc) multiplied by propn of wages in turnover and divided by FTE average wage in general economy from IO table People - assumed 1 week on average employment derived
Food and Beverage at Rugby Ground	9.4	976	FTE -Modelling of total attendee spend on at ground food and beverage, and employment to turnover ratio as per the Food Service sector (IO table) People - assumed average of 0.5 weeks worth of employment per person				
Total	168.0	3,100		Total	353.4	18,376	
Total Employment Outcomes	521	21,476					

Estimating the Extent of Economic Impact - Spectators

Estimating Economic Impact:

To estimate the impact of this activity on the national economy of Fiji

- Created tourism nights are calculated by multiplying the number of overseas attendees by the nights stayed in Fiji (in the region of the game and elsewhere);
- To calculate new or incremental expenditure, the expenditure per survey respondent who came for the event is converted to an estimate of spend per visitor night (by dividing by the number of nights stayed and size of group) and multiplying by the number of nights stayed by those who came for the event, and the number of additional nights stayed by those who extended their stay). For those visitors who responded they came specifically for some visits, it is assumed that 50% of their total nights are visits for the game, and they spend the same as those who came for the game on those days. The results of these calculations are presented in Tables 10-12.

Table 10: Overseas visitor nights created by the event

	Came for game (all visits)	Came for game (some visits)	Total Game Impacted Visitors
Number of nights in region of game	3.90	6.50	4.74
Number of nights elsewhere in Fiji	6.60	4.50	6.42
Number of night in Fiji	10.50	11.00	11.16
Aggregate visitor nights	30,684	19,287	49,971
Aggregate Created nights	30,684	9,644	40,328

Table 11: Average spend per in scope respondent who visited especially for the event

	Came for game (all visits)	Came for game (some visits)	Total Visitors
Game Tickets	\$850.0	\$291.7	\$567.1
Game/Team merchandise	\$372.5	\$175.0	\$283.6
Meals, food, drink at the game	\$213.8	\$112.5	\$164.5
Meals, food, drink at other places during your trip	\$831.3	\$658.3	\$924.3
Travel to Fiji (if from overseas)	\$2,130.0	\$1,766.7	\$1,984.2
Transport in Fiji	\$550.0	\$533.3	\$560.5
Accommodation	\$1,860.0	\$675.0	\$1,455.3
Any other expenditure	\$765.0	\$708.3	\$897.4
Total	\$7,572.5	\$4,920.8	\$6,836.8
Number of people covered by expenditure	6.60	4.50	6.42

Table 12: Average spend per attendee per night stayed in Fiji

	Came for game (all visits)	Came for game (some visits)	Total Visitors
Game Tickets	\$12.27	\$5.89	\$7.92
Game/Team merchandise	\$5.38	\$3.54	\$3.96
Meals, food, drink at the game	\$3.08	\$2.27	\$2.30
Meals, food, drink at other places during your trip	\$11.99	\$13.30	\$12.90
Travel to Fiji (if from overseas)	\$30.74	\$35.69	\$27.69
Transport in Fiji	\$7.94	\$10.77	\$7.82
Accommodation	\$26.84	\$13.64	\$20.31
Any other expenditure	\$11.04	\$14.31	\$12.53
Total	\$109.3	\$99.4	\$95.4

Estimating the Extent of Economic Impact - Spectators

- Fiji residents were asked in the survey as to whether without local games they would travel out of the country to attend alternative events. The response is adjusted down for response bias (by 70% with 19.5% assumed to actually travel to alternative events in other countries if this was not held. These residents are assumed to have similar “alternative” characteristics as overseas visitors spend in coming to Fiji and this is therefore considered as retained expenditure (i.e. is an import replacement relative to .the exports generated by inbound tourism
- With these assumed average expenditures, and the visitor characteristics as above, estimate created or new spend in the economy associated with spectators is estimated as in Table 13:

Table 13: Created/net spend linked to Fiji rugby attendance - Spectators

	Fiji Resident (foregone)	Total Visitors	Total including Foregone
Operating spend	\$0.71	\$0.44	\$1.1
Game/Team merchandise	\$0.21	\$0.29	\$0.5
Meals, food, drink at the game	\$0.12	\$0.16	\$0.3
Meals, food, drink at other places during your trip	\$0.46	\$0.64	\$1.1
Travel to Fiji (if from overseas)	\$1.19	\$1.64	\$2.8
Transport in Fiji	\$0.31	\$0.42	\$0.7
Accommodation	\$1.04	\$1.43	\$2.5
Any other expenditure	\$0.43	\$0.59	\$1.0
Total	\$4.46	\$5.60	\$10.1

- This expenditure is then allocated to appropriate industry sectors within the economic model as per the assumptions in Table 14. Note that the economic model is in basic prices and so for retail and event merchandise the allocation is for the retail margin, some products produced in Fiji and a transport margin, with some of the purchases assumed to be from out of country i.e.. direct imports. Travel expenditure to the country is assumed to largely be split with the country of origin.

Table 14: Assumed distribution of expenditure to industry sectors in the economic model

Expenditure Item	Retail	Road Transport	Other Transport	Manufacturing	Other Services	Sport and Recreation	Food Services	Accomm	Imports	Total
Operating spend	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%
Game/Team merchandise	35%	0%	0%	20%	0%	0%	0%	0%	45%	100%
Meals, food, drink at the game	10%	5%	5%	10%	0%	0%	50%	0%	20%	100%
Meals, food, drink at other places during your trip	10%	5%	5%	10%	0%	0%	50%	0%	20%	100%
Travel to Fiji (if from overseas)	5%	10%	45%	0%	0%	0%	0%	0%	40%	100%
Transport in Fiji	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%
Accommodation	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%
Any other expenditure	20%	0%	0%	15%	15%	25%	10%	5%	10%	100%

Estimating the Extent of Economic Impact – Participants and total impact

Estimating Economic Impact - Participants

Participants spend was based on input from Fiji Drua. 100% of participant visit are “created” by the event, and it is assumed that if the games did occur the Drua would have to travel to other countries to compete, and therefore this would be a net economic loss – this is assumed to be equal to what teams spend coming to Fiji. On this basis the created expenditure is estimated as in the following table. This is distributed to the economic sectors in the model using the same assumption as for spectators and presented in Table 15.

Table 15: Created/net spend linked to Fiji rugby attendance - Participants

	Total Visitors	Total including Foregone
Game Tickets	\$0.11	\$0.17
Meals, food, drink at the game	\$0.07	\$0.1
Meals, food, drink at other places during trip	\$0.51	\$0.8
Travel to Fiji (if from overseas)	\$1.46	\$2.2
Transport in Fiji	\$0.06	\$0.1
Accommodation	\$0.34	\$0.5
Any other expenditure	\$1.46	\$2.2
Total	\$4.00	\$6.0

Modelling the impact

Table 15 presents estimates of expenditure. In an economic impact study, it is more appropriate to estimate the outcomes in terms of how national accounting standards present economic activity. Therefore, the expenditure is allocated to appropriate industry sectors (as above) and traced through a national economic model (further details provided in later pages – the model is a general equilibrium model with an input output table base and econometric overlay to incorporate supply constraints), to estimate the outcomes associated with spend in terms of:

- Local employment generated
- Wages and salaries to employees which result
- Impact on Gross Domestic Product earned by residents and local business
- This impact will occur as:
 - **Direct** – economic impact in the activities supported.
 - **Induced** – direct suppliers to the activities, second and further round through the industrial support and the spend of wages (i.e. production and consumption induced impacts).
- The induced effects in business that benefit from the stimulus to activity are partly offset by the shift of resources from some sectors towards these activities. However, the constraints involved are modelled as relatively small in that much of the activity makes use of existing infrastructure and provides opportunities for those in the informal economic sector, or increase hours for underemployed persons.
- The results of the modelling are summarized in Table 16 (and more detail of outcomes by industry sector is provided in Table 19).

Table 16: Modelled economic impact of 2023 Fiji Drua Season

	Spectators	Participants	Total
Direct Impact			
Value Added (\$'m)	\$3.8	\$3.1	\$6.9
Employment (FTE's)	119	96	215
Induced Impact			
Value Added (\$'m)	\$2.6	\$1.9	\$4.5
Employment (FTE's)	13	14	27
Total Impact			
Value Added (\$'m)	\$6.4	\$5.0	\$11.5
Employment (FTE's)	133	110	242

Broader Economic Benefits

While the economic benefits calculations present the immediate or activity based estimate of economic impact, major events are demonstrated to have a broader range of benefits, and for the Fiji Drua Season these can be summarized as:

Other economic outcomes:

- Longer term tourism outcomes:
 - 90% of visitors said they would be likely (5% agreed and 84% strongly agreed) they would visit Fiji again in 2024 to attend a Super Rugby game.
 - 95% of visitors said would recommend attending a Super Rugby game in Fiji to a friend or colleague (5% agreed and 90% strongly agreed).
- Support for local recreational infrastructure:
 - The stadiums used for the games receive revenues that support the maintenance of the infrastructure that are used for local purposes.
- Investment stimulus
 - Then modelling of economic impact involves a short term view. In the longer term, and particularly with an extended program of games over coming years which will give more confidence in achieving annual outcomes, increased occupancies and spend will directly benefit investment in visitor accommodation and general hospitality. This will be a combination of foreign direct investment (in larger hotels etc.) and local investment in small businesses that are part of the direct and indirect supply chain. The investment itself represents a further increment to GDP, with Gross capital formation making between 20%-25% of Fiji's GDP. In addition, studies on foreign investment indicate that "foreign investment has thus been shown to be the most potent means of accelerating economic development".
- Benefits for sponsors (Table 17):
 - On average respondents could identify 6.0 sponsors out of a list of 13 with prompting. The most frequently identified sponsors were Swire Sipping, Shop MN Save, Fiji Airways, and AquaSafe Fiji.
 - On average respondents nominate 3.3 sponsors in terms of having the most positive experience with were Jack's of Fiji, Shop N Save, Fiji Airways and AquaSafe Fiji.

Table 17: Sponsor recognition

Sponsor	Recall of Brand/Sponsors	Brand/Sponsors had most positive experience with
ANZ (Australia & New Zealand Banking Group Limited)	43%	13%
AquaSafe Fiji	54%	36%
Fiji Airways	62%	41%
FijiCare Insurance Limited	26%	7%
Jack's of Fiji	61%	57%
New Balance	33%	13%
Pacific Aus Sports	31%	4%
Paradise Beverages	24%	19%
Pepsi	20%	4%
Shop N Save	69%	41%
Swire Shipping	75%	24%
Vinod Patel	17%	7%
Vodafone	26%	17%

Estimating the Well-being Outcomes

Estimating Economic Impact:

While much of the spend of Fijians is not included in the estimate of economic impact, it is clear that the conduct of the event contributed to the wellbeing of many, many people. A value has been placed on this well being impact through the survey process in that:

- 99% of Fiji based respondents said that the Festival represented reasonable to very good value with 54% indicating it represented very good value (Figure 3).
- Respondents who considered their attendance to be reasonable to very good value were asked to rate how much value beyond what they spent they believed was created. Respondents provided the following estimates (Table 18).

Figure 3: Fijian attendees reflection of value in attending

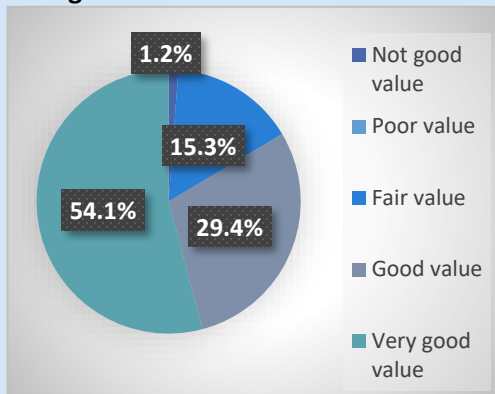


Table 18: Identification of value

	Fiji Resident	Visitor	Total
0 - 10% above	0.0%	0.0%	0.0%
11 - 20% above	3.6%	0.0%	2.9%
21 - 30% above	9.5%	0.0%	7.8%
31 - 50% above	31.0%	5.3%	26.2%
51%+ above	56.0%	94.7%	63.1%
	100%	100%	100%

Therefore, for the 18,839 Fiji residents estimated to attend as spectators are estimated as achieved an average value of 49% above what they spent in attending games. In addition, there were 971 Fiji residents as participants. It is conservatively assumed that these participants have a similar surplus value as spectators (conservative in that participants get value by being able to play at home). These are use benefits and are doubled to reflect non use benefits (e.g. existence value - value created for those who did not attend this year, but would like the opportunity, heritage value – such as national pride, etc., physical and mental health benefits linked to the physical activity). On this basis the well being value of the Festival is estimated as being \$21 million.

Supporting evidence for this valuation from Fiji respondents to the survey includes:

- 82% of Fijian residents agreed or strongly agreed they will attend a Super Rugby game in Fiji in 2024 (75% strongly agreed).
- 83% of Fijian residents agreed or strongly agreed they enjoyed attending (75% strongly agreed)
- Again, 83% agreed or strongly agreed they would recommend attending a Super Rugby game in Fiji to a friend or colleague (73% strongly agreed).
- Very similar percentages agreed with statements that “Hosting Super Rugby games in Fiji significantly improves the image of Fiji”, and that “even if I did not attend a game of Super Rugby, I believe the country should host games”.

Impacts re Domestic Tourism

- The modelling above includes only the implications of international tourism. However, hosting of the games generates significant domestic activity, with both Suva and Lautoka having domestic overnight stays because of the games. The outcomes in terms of domestic tourism can be summarized as:
 - 46% of survey respondents attended a game in a region other than where they live, and stayed an average of 2.5 nights in the region of the game
 - Therefore there were a total of 20,970 domestic visitor nights generated by people attending games in a region outside of their region of residence, and 14,296 of these were undertaken for the purpose for the
 - People who attended a game outside of their region of residence spent double the amount in their attendance
 - The total expenditure associated with this created domestic tourism is estimated at \$2.35 million

Issues and methodology

The economic impact analysis of an event focuses on the effect of the event in terms of the creation of national incomes and employment. This effect arises through the primary expenditure directly associated with the event, and from further rounds of indirect expenditure that this direct expenditure stimulates as it flows to supplying industries and into incomes and consumption.

The economic impact of a special event arises from a number of sources, which are tied in with the possibility of earning 'export' dollars for the region, or the replacement of 'imports'. The impacts can be summarised as arising from:

- Dollars spent within a region by attendees and associated visitors. From a Fiji perspective, visitors are attendees from overseas. This will include expenditure not only to support the event itself, but expenditure on items such as accommodation and other entertainment. The main parameters relevant in determining the amount involved will include average expenditure per day and length of stay. It is important to also recognise that if the visit is in place of an alternative visit (and has just been re-timed or coincided with the event) the expenditure cannot be truly fully claimed as resulting from the visit. This includes not just the expenditure in the country, but a proportion of travel expenditure associated with getting to and from the country.
- Expenditure of locals in the analysis of the economic impact of events is generally assumed to be transferred from other activities within the economy. This assumption accrues no benefits from this type of expenditure, even though local expenditure represents an economic choice that is made, which suggests that the benefits outweigh the opportunity cost involved. However, in the case of major events it could reasonably be expected that in the absence of the event in Fiji, a proportion of people would choose to attend the event outside of the country (confirmed by the survey). This reduction in money flowing out of the country is equally a benefit.
- Dollars spent within a region based on sponsorship or contribution from parties external to the country may also be significant and this needs to be measured or modelled.

The categorisation of expenditure is consistent with the approach adopted for studies of many special events over recent times and in event management and tourism economics literature.

An input output model of the Fijian economy is the base of the economy wide model used for this study and shows the inter-linkages between industry sectors in the economy. Therefore, the change in economic circumstances (specifically a change in final demand) for one sector of the economy (e.g. through a major project) can be traced through to its effect on other sectors, allowing a more comprehensive look at the effects of the project. It is based on assumptions that all changes in final demand can be met by the economy without constraint. The use of input output tables as a base modelling framework has been a prominent process for translating direct created expenditure (a final demand stimulus) into jobs and incomes, and for establishing the extent of the flow-on impact for many studies of major sporting events. The model employed in this study acknowledges some constraints in that the resources directed to this activity draws labour and capital from other sectors and offsets the benefits. Usually at the national level the labour market is in effect the most significant constraining factor. For this analysis however the assumptions relating to supply side constraints are limited in that labour can be drawn from the informal economy and from underemployed resources – while the infrastructure required is already in existence and as such does not represent a significant constraint.

The economic model

The economic model applied in this project is input output model of the economy of Fiji with an econometric overlay representing macroeconomic constraints (but noting as per the previous discussion, these are marginal in this instance). The base table applied is that developed by the Asian Development Bank for 2022, with the labour ratios by industry derived from labour force data. The table has been updated to 2023 for inflation. An input output table is an unconstrained general equilibrium model of the economy, which assumes that in the longer term and economy can grow (or contract) proportionally with no supply side impediments, however this model includes an overlay for macroeconomic constraints. The negative induced impacts in terms of some employment numbers in some sectors are a consequence of the transfer of resources from other elements of those sectors to meet demand in the sports tourism area.

The expenditure estimated as new is distributed to the relevant industry sectors from the economic model and applied as an economic shock into the to convert expenditure to income and employment outcomes.

Table 19: Detailed Modelling Results

	Expenditure (\$m)	Value Added (\$m)			Income (\$m)			Employment (FTE's)		
		Direct	Induced	Total	Direct	Induced	Total	Direct	Induced	Total
Agriculture, Forestry and Fishing	\$0.00	\$0.0	\$0.9	\$0.9	\$0.0	\$0.3	\$0.3	0.0	31.3	31.3
Mining	\$0.00	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0.0	0.3	0.3
Food and Beverage Manufacturing	\$0.00	\$0.0	\$0.5	\$0.5	\$0.0	\$0.2	\$0.2	0.0	6.8	6.8
Other Manufacturing	\$0.94	\$0.4	\$0.4	\$0.7	\$0.1	\$0.1	\$0.2	5.5	4.1	9.7
Electricity, Gas, Water & Waste	\$0.00	\$0.0	\$0.2	\$0.2	\$0.0	\$0.1	\$0.1	0.0	1.9	1.9
Construction	\$0.00	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0.0	1.9	1.9
Wholesale Trade	\$0.00	\$0.0	\$0.3	\$0.3	\$0.0	\$0.1	\$0.1	0.0	11.1	11.1
Retail Trade	\$1.50	\$0.8	\$0.1	\$1.0	\$0.3	\$0.0	\$0.3	77.0	-4.7	72.4
Accommodation and Hospitality	\$5.01	\$1.7	-\$0.1	\$1.5	\$0.5	\$0.0	\$0.5	47.0	-10.7	36.3
Road Transport	\$1.54	\$0.7	\$0.1	\$0.8	\$0.2	\$0.0	\$0.3	14.5	-0.6	13.9
Other transport and services	\$2.71	\$1.4	\$0.0	\$1.4	\$0.4	\$0.0	\$0.4	23.9	-4.5	19.4
Information Media & Telecommunications	\$0.00	\$0.0	\$0.4	\$0.4	\$0.0	\$0.1	\$0.1	0.0	1.2	1.2
Finance & Insurance Services	\$0.00	\$0.0	\$0.8	\$0.8	\$0.0	\$0.3	\$0.3	0.0	3.3	3.3
Property Services	\$0.00	\$0.0	\$0.4	\$0.4	\$0.0	\$0.1	\$0.1	0.0	1.3	1.3
Business Services	\$0.00	\$0.0	\$0.2	\$0.2	\$0.0	\$0.1	\$0.1	0.0	6.4	6.4
Public administration and safety	\$0.00	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0.0	0.0	0.0
Education & Training	\$0.00	\$0.0	\$0.2	\$0.2	\$0.0	\$0.1	\$0.1	0.0	3.1	3.1
Health care and social assistance	\$0.00	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0.0	0.7	0.7
Other Services	\$2.95	\$2.0	\$0.1	\$2.1	\$0.6	\$0.0	\$0.7	23.6	-2.5	21.1
Direct Imports	\$3.42									
Total	\$18.07	\$6.9	\$4.5	\$11.45	\$2.3	\$1.6	\$3.9	192	51	242

Appendix 1: Data Sources

The estimates provided in this report are indicative in that they are based on three sources of data:

- Core data on the number of games, attendance at games, and spend by participants from Fijian Drua.
- An on-line audience survey conducted by the consultant and distribution by Fiji Tourism. The survey attracted 128 respondents. For an evaluation of this type this is a relative low response rate and such the modeling results should be considered indicative.

Appendix 2: The economic model

The economic model applied in this project is a constrained input output model of the Fiji. An input output model is an unconstrained general equilibrium model of the economy, which assumes that in the longer term and economy can grow (or contract) proportionally with no supply side impediments. To recognize the existence of macroeconomic constraints in terms of access to labour and capital, the model incorporates an econometric overlay to adjust the outcomes and offset some of the gains from the outcomes in themselves.

The expenditure estimated as new is distributed to the relevant industry sectors in the economic model and applied as an economic shock to convert expenditure to income and employment outcomes as follows:

- **Local employment generated** (in FTEs)
- Resulting gross **wages and salaries to employees**
- Impact on **Gross Domestic Product** earned by residents and local businesses (which is made up of wages and salaries, gross operating surplus and taxation (direct taxes such as payroll tax, property taxes etc.).

This impact will occur as:

- **Direct** – economic impact in the activities supported directly by the investments and projects (i.e. screen productions, site administration).
- **First round** – economic impact in those businesses who supply services to the activities that occur on site.
- **Induced** – second and further round through the industrial support and the spend of wages (i.e. production and consumption induced impacts) but allowing for resources being drawn from other sectors.

The framework applied, and the ratios are consistent with Fiji national accounts data, and other studies of tourism in Fiji, with examples including:

- Economic Impact of Tourism on Fiji's Economy: Empirical Evidence from the Computable General Equilibrium Model December 2004, Tourism Economics. The key conclusions are that “a 10% increase in tourist expenditure in Fiji will increase GDP by 0.5% and contribute to an improvement in the balance of payments, real consumption will increase by 0.72% and real national welfare will increase by 0.67%. It is also found that an expansion of tourism will lead to an appreciation of the exchange rate, together with an increase in domestic prices and wage rates, and so traditional export sectors will experience a decline in their export competitiveness. In Fiji's case there is evidence that the increases in tourism and non-traditional exports outweigh the fall in non-traditional exports caused by an expansion of tourism.”
- Kantar and TNS Australia (with support PwC, and commissioned by the Fijian Ministry of Industry, Trade and Tourism (MITT), the Australian Government and the International Finance Corporation (IFC)) in their 2019 paper “Assessment of the Economic Impact of Cruise Tourism in Fiji” conclude that “cruise companies, their passengers, and crew spent FJ\$44.2 million in Fiji in 2018. They call this spend the direct impact and suggests it resulted in a 0.66 percent of Fiji GDP to Fiji in 2018. They estimate the indirect stimulus impact at FJ\$46.6 million and note that the “Indirect stimulus results from local businesses using cash-flows received from cruise ship activity to purchase the inputs required to carry out their business activities. The estimate a total of direct 4,600. It should be noted that while this study confirms the importance of supply chains in considering the contribution an exogenous spend, the methodology is not consistent with national accounting principles as it estimates turnover outcomes (direct and indirect) and compares them to GDP.