Estimating Tourism Impact Using Multipliers

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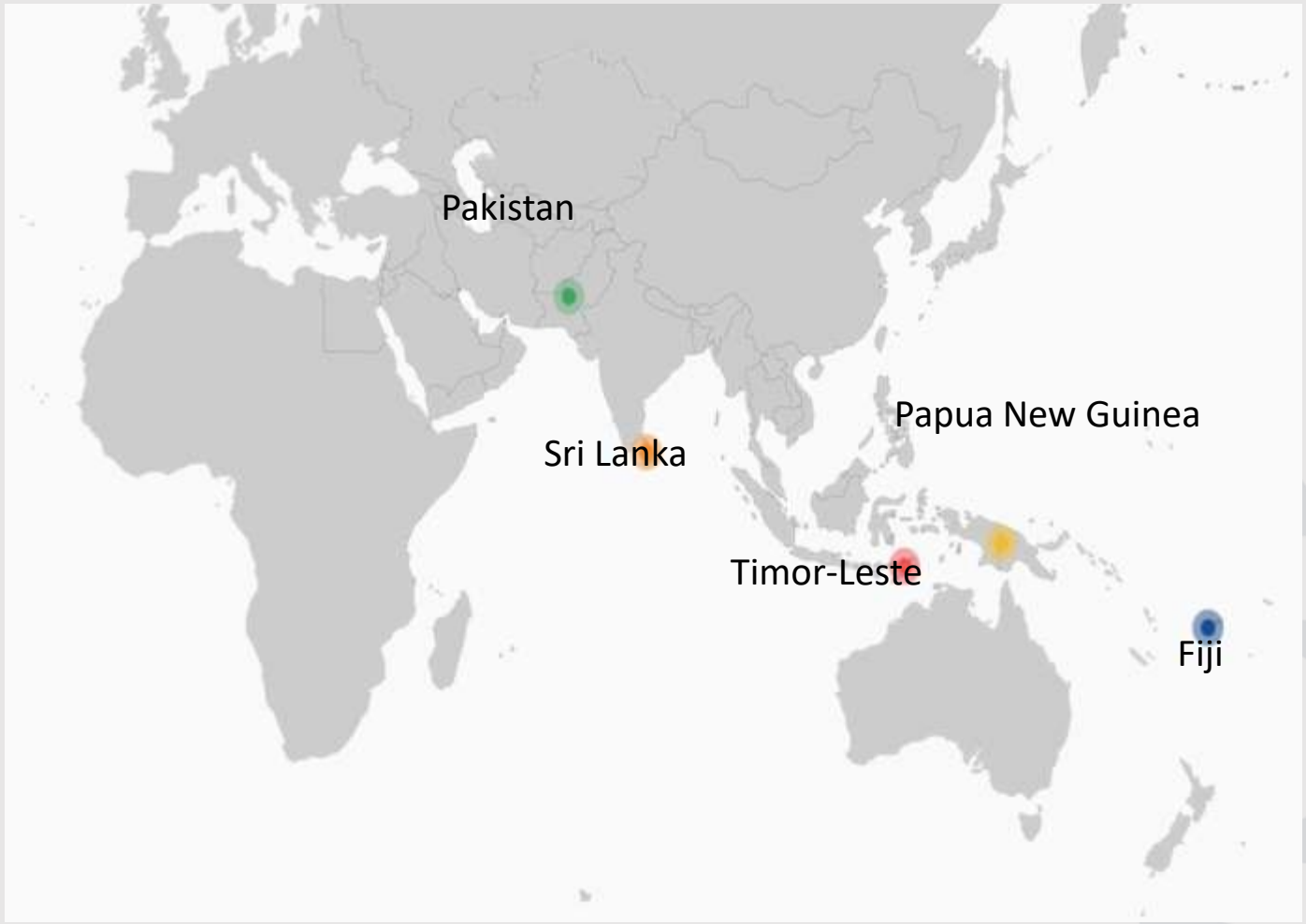
Who we are



- Funded by DFAT and managed by the Palladium Group
- Started in Fiji in 2011 and expanded to 4 other economies
- “Market Systems” approach to facilitate private sector development.

MDF Market Development Facility

Australian Aid

Exports

Tourism

Business Enabling Services and Infrastructure

Business Acceleration and Expansion

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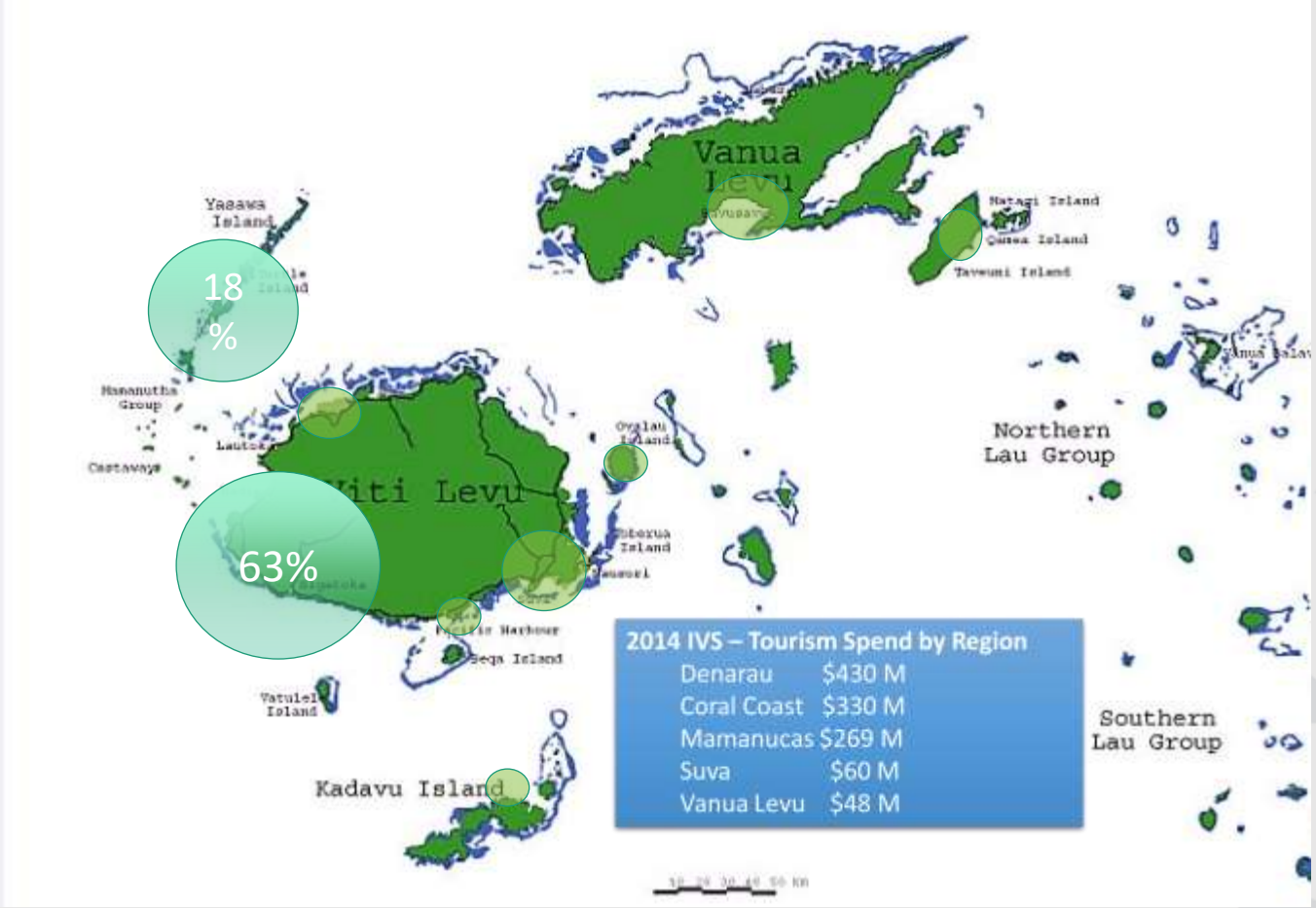
More tourists to more parts of Fiji



More "Fijian" Products, Activities & Produce For Tourists

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Uses of multiplier

Design portfolio	Measure impact	Influence stakeholders
➓Select/ prioritise destinations to work with in TOURISM ➓Identify partnerships that trigger the multiplier ➓Identify partnerships that can maximise the impact of the multiplier.	➓To measure the impact of *additional tourists* and/or *increase in tourist spending* on employment and income in different tourist destinations in Fiji. ➓Triangulate impact of partnerships designed to capture more of the tourist dollar in country ➓Bridge gap between impact of partnerships and systemic change in TOURISM	➓To clarify ROI of TOURISM partnerships to internal audience ➓To communicate to donors on the impact of tourism • To influence public sector agencies and ministries relevant to TOURISM • To prime private sector for investment opportunities in TOURISM

Ensuring Accuracy

Establish attribution

Must have strong attribution measures in place in order to claim any benefits from multipliers

Update multiplier regularly

Multiplier is not static, and requires regular updating to reflect change in sector dynamics

Best done for each type of tourist, tourism, and destination

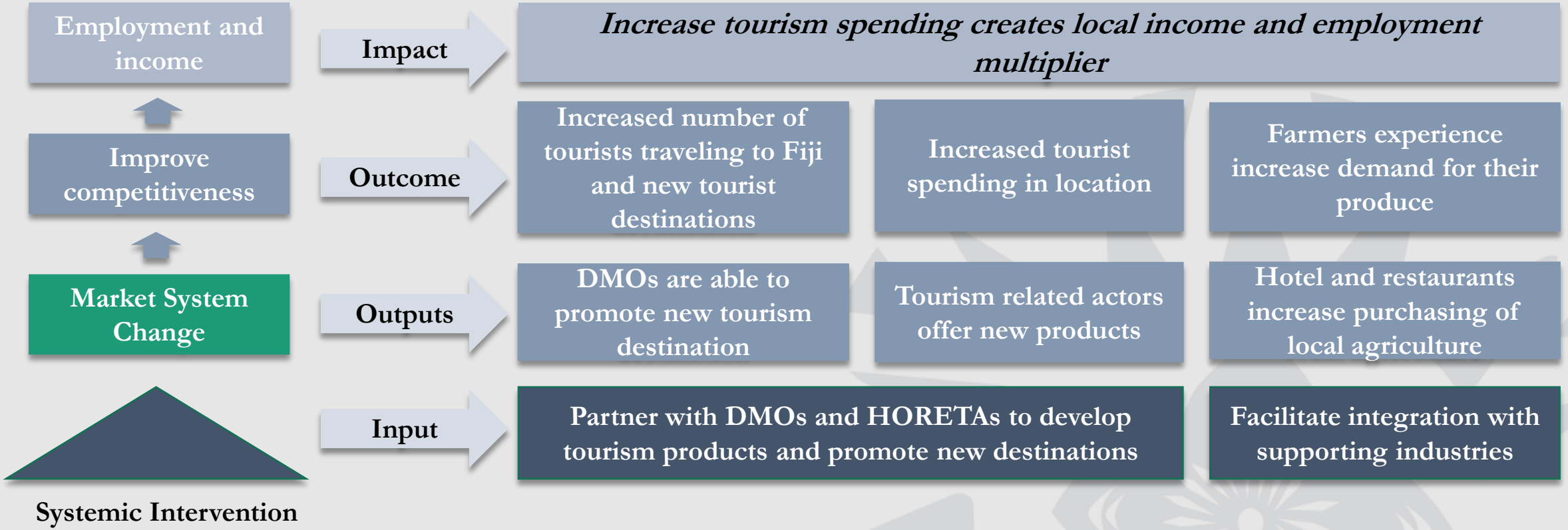
Background to the Multiplier Study

The study was conducted in 2017 for Market Development Facility (MDF) Fiji, a multi-country MSD project funded by Australian Aid.

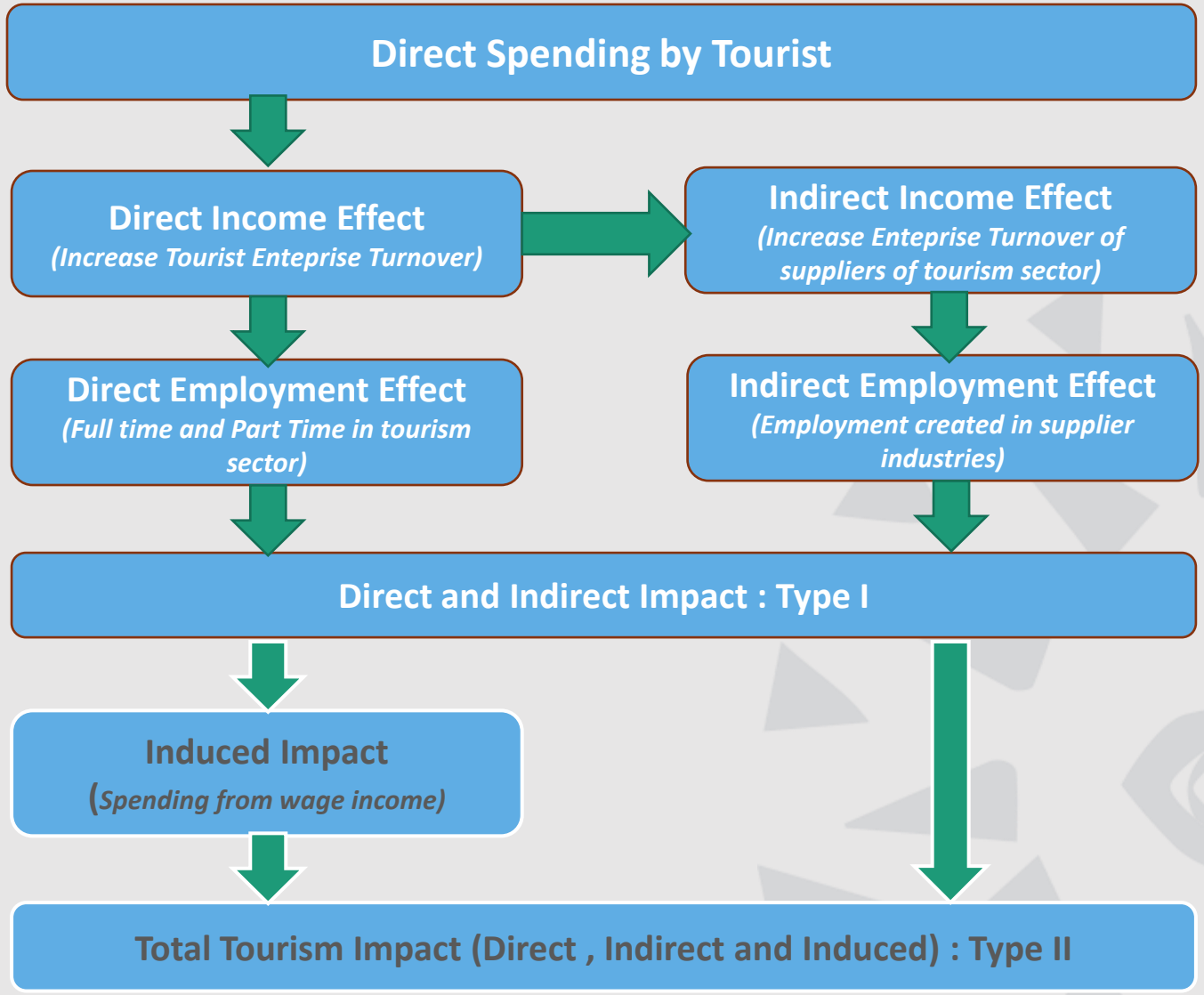
To design & implement a study to develop a local tourism multiplier :

- To measure the impact of *additional tourists* and/or *increase in tourist spending* on employment and income in different tourist destinations in Fiji.

Theory of Change for employment effect



Scope of study



Scope of study

- **Value of Additional Market transactions (Direct)**, which measures additional revenue generated from increased tourism spending, i.e. a measure of MDF's business partner (DMO) and its target market (tourists). *This is the direct tourism demand.*
- **Indirect output multiplier**, measures the impact of each additional one dollar spending on tourism products (direct tourism demand such as hotel, activities etc. where tourist directly pay) on output in all industries, such as farming enterprises supplying to hotels or activity providers hired by resorts etc
- **Employment Effect**, measures the **Direct FTE** created primarily in the accommodation sector and indirect impact on the overall economy (when plausible)

Research Design

Literature review and meta-analysis

>> Use IVS data to develop estimate for location specific tourism spending

>> Develop per capita /visitor spending pattern estimates for key locations

>> Collate secondary data on employment and room nights

In-depth interviews

>> Undertake in-depth interviews with key DMO stakeholders in Raki Raki and Savusavu

>> Validate findings from secondary data and triangulate with primary data findings

>> Develop ratio (multiplier, efficiency factor)

Analysis and Report

>> Use method and data triangulation to estimate : Output and employment multiplier

>> Strategic implications of targeting outer destinations

>> How multiplier can be used for business case analysis and MRM tasks

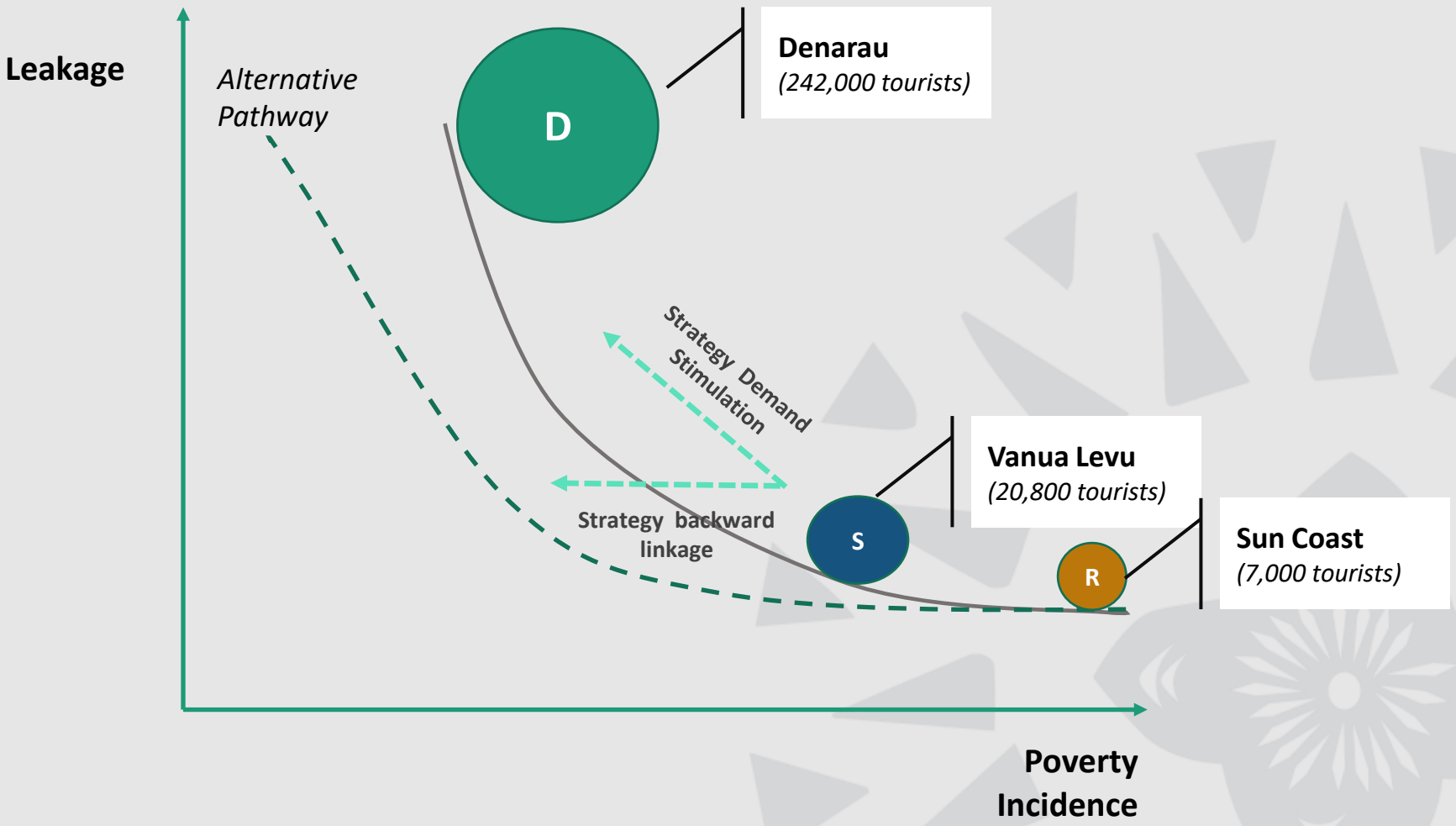
Stylized Scenario Analysis

	Rakiraki	Savusavu	Total
Number of Additional Tourists (a)	1000	1000	2000
Average Stay (b)	7	7	
Average Spending per tourist/day (c)	$226	$282	
Total Spending (a x b x c)	$ 1,582,000	$1,974,000	$3,556,000
Deduct Tax (25%)	$395,500	$ 493,500	$ 889,000
Direct Tourism Demand or Value of Additional Market transactions (e)	**$1,186,500**	**$1,480,500**	**$2,667,000**
Output Multiplier (f)	1.35	1.35	
Total Tourism Impact (Direct+ Indirect, e x f)	**$1,601,775**	**$1,998,675**	**$ 3,600,450**

Stylized Scenario Analysis

Elasticity Method - I	Rakiraki	Savusavu	Total
Number of Additional Tourists (a)	1000	1000	2000
Average Stay (b)	7	7	
Tourist Nights (a x b)	7000	7000	
FTE per Tourist Per night (c)	0.004	0.003	
Total Direct Employment (FTE) - [(a xb) x c]	**28**	**22**	**50**
Employment Multiplier	1.20	1.20	
Total Employment Impact (Direct + Indirect)	**33**	**27**	**60**

Strategic Implications



Things to keep in mind!

1. Multiplier are context specific, you cannot use one multiplier everywhere!
2. Think about labour dynamics – Fixed Term contract or hourly wage?
3. If you do want to use an existing multipliers then understand/ analyse/ develop /adjust
4. Triangulate - combining field and stats, never only one of them
5. Multipliers don't replace assessments, you need them to develop multipliers
6. Simplify where it makes sense (realistic assumptions)
7. Devil in the detail (like mean/median)
8. Focus on key employment changes, not trying to assess all possible multiplier impact
9. Being conservative in all steps

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Thank You

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Additional Material : TOR of the MDF Study

STEP	DELIVERABLE	DAYS
Step 1: Preliminary Briefing/Meeting	N/A	+/- 4 days
Step 2: Desk Review of Key Documents	Due: 22 February 2017	
Step 3: Development of Research Plan - **Review of MDF proposed Table of Contents for Report** - **Design of Research Plan and Tools, including Sampling Strategy, Interview Guide & Field Plan**	Research Plan submitted to MDF Due: 25 February 2017	+/- 2 days
Step 4: Research Plan finalized - **Incorporation of MDF feedback**	Research Plan finalized Due: 29 February 2017	+/- 1 day
Step 5: Training of MDF Staff - **Technical training delivered to MDF Staff on Research Tool, Sampling Strategy, Interview Guide and Field Plan**	MDF Staff Training Delivered and Interview Plan/Schedule finalized Due: 04 March 2017	+/- 2 day
Step 6: Discussion and finalization of interview schedule		
Step 7: Field Work - **Interviews conducted by MDF Staff** - **Scheduled debriefs & guidance provided to MDF survey Teams during field work**	Survey Data collected, cleaned & collated Due: 25 March 2017	+/- 5 days
Step 8: Analysis & Discussion	Draft Report prepared Due: 01 April 2017	+/- 3 days
Step 9: Report Preparation	Final Report submitted to MDF Due: 30 April 2017	+/- 5 days
International travel to Fiji	N/A	+/- 2 days
Total		24 days

Descriptive Stats

	Vanua Levu (Savusavu)		Suncoast (Rakiraki)	
Median Length of Stay (days)	7		7	
Room Density (# of visitors/room)	2.75		2.2	
Avg. Spending per tourist per day (FJD/day/tourist)	$282	100%	$226	100%
Hotel	$245	87%	$194	86%
Retail	$10	3%	$10	4%
Activities	$15	5%	$ 7	3%
Transport	$ 3	1%	$ 5	2%
Non-hotel F&B	$ 7	2%	$ 5	2%
Others	$ 3	1%	$ 4	2%

Analysis – Expenditure Method (Employment)

Expenditure Method	Rakiraki	Savusavu	Total
Number of Additional Tourists (a)	1000	1000	2000
Average Stay (b)	7	7	
Labor Cost per Tourist per night (c)	24	36	
Total Labor Cost (a x b x c) (f)	$169,597	$254,129	$423,726
Wage Rate (FJD/hr) (g)	$4	$4	
Number of hr (f/g)	47,440	72,608	
Total Direct Employment (FTE)	**25**	**38**	**63**
Employment Multiplier	1.20	1.20	
Total Employment Impact (Direct + Indirect)	**30**	**45**	**75**

Analysis – Elasticity Method (Employment)

Elasticity Method – II	Rakiraki	Savusavu	Total
Number of Additional Tourists (a)	1000	1000	2000
Room Density (f)	2.2	2.75	
Room Nights (a x b)/ f (v)	3,182	2,545	5727
Total number of rooms nights (d) – Fiji	2,008,029		
Total employment (e) - Fiji	11,816		
Employment /room night (e/d)	0.0059		
Efficiency factor	0.0077		
Job to FTE Factor	1.15	1.14	
Adjusted room nights to FTE factor (w)	0.0088	0.0087	
Total Direct Employment (FTE) - (v x w)	**28**	**22**	**50**
Employment Multiplier	1.20	1.20	
Total Employment Impact (Direct + Indirect)	**34**	**27**	**60**

Business Case - Example

Potential Impact of Intervention		Scenario 1 500 tourist stay additional 2 nights	Scenario 2 100 new tourists stay for 7 nights	Comments
Additional Revenue	Year 1	$128,738	$90,117	Number of tourist x Number of days x Revenue per tourist per night
	Year 2 (50% return)	$64,369	$45,058	
	Total Revenue	$193,107	$135,175	
	ROI (Revenue)	193%	135%	
Additional Profit	Year 1	$38,577	$27,004	Number of tourist x Number of days x Profit per tourist per night
	Year 2	$19,288	$13,502	
	Total Profit	$57,865	$40,506	
	ROI (Profit)	58%	41%	
FTE Effect	Total Tourist Nights	1000	700	Tourists x Nights
	FTE per Tourist Per night	0.004	0.004	
	FTE (Direct)	4	3	MDF can also use this info to justify investment