

Land use in the Seychelles – Rethinking the Sustainability of Tourism: Appendix

USYS TdLab Transdisciplinary Case Study 2023

Report

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USYS TdLab Transdisciplinary Case Study 2023

Pius Krütli, Florian Marcussen, Elizabeth Tilley, Amin Khiali-Miab, Bianca Vienni, Paul Kangethe, Daniel Etongo & Michael Stauffacher (Eds.)



Photo: Anton Yang

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Imprint

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Appendix Chapter 1

Navigating the Socio-Cultural and Environmental Sustainability of Beach Tourism in Seychelles

Appendix 1.1 Survey

3. Please indicate the date and the time you **started answering** the survey. *

Example: January 7, 2019 11:03 AM

General questions

4. We will begin by asking some **general questions** about you and your visit at this beach. *

How old are you?

5. Are you a local resident, local tourist or a foreign tourist? *

Check all that apply.

- Local resident (I live at the same island as this beach)
 Local tourist (I live in the Seychelles but not at the same island as this beach)
 Foreign tourist (I live outside of the Seychelles)
 Other: _____

6. If you are a **local tourist**, where do you live in the Seychelles?

Check all that apply.

- Praslin
 La Digue
 Other: _____

7. If you are a **foreign tourist**, where is your country/region of residence?

8. By which **transport mode** have you travelled to this beach? (Please mark only 1 dominant transport mode that you spent the most time on) *

Check all that apply.

- By foot
 By bike
 By bus
 By taxi
 By car
 Other: _____

9. **How long did it take for you to travel** from your original starting point to this beach (in minutes)? You do not have to be very accurate, an approximate time is also appreciated. *

10. Where have you heard about this beach? (Please mark only 1 answer) *

Check all that apply.

- Travel agency
- Travel guide
- At the hotel / AirBnB / accommodation etc.
- By recommendation (from locals, tour guide, friends etc.)
- Internet (Google Maps, TripAdvisor etc.)
- Social media (Instagram etc.)
- General knowledge
- Other: _____

11. Which **activities** are you planning to do or have you already done at this beach? (e.g., reading, swimming or playing beach volleyball) *

You can also write "not applicable" or "I do not know" if you do not wish to answer this question.

12. Besides the activities you listed in your last response, what are your **other reasons for choosing this specific beach?** (e.g., the natural beauty of the beach or the proximity of the beach) *

You can also write "not applicable" or "I do not know" if you do not wish to answer this question.

13. During your stay as a (foreign or local) **tourist, how often** have you visited this beach? *

Or if you come here regularly as a **local resident, how often** do you visit this beach?

Check all that apply.

- Everyday
- More than once a week
- More than once a month
- Less than once a month
- This is my first time visiting this beach
- I do not visit this beach regularly

14. This question is about the **time window of your visit** at this beach. *

If you have been to this beach before or if you visit this beach regularly, please provide the **usual arrival and departure time** of your visits below (in an accuracy/increment of 30 minutes, for example 10:30-12:30 or 18:00-20:30).

If this is your first time at this beach or if you do not visit this beach regularly, please provide your **actual arrival time and planned departure time** of your visit below (in an accuracy/increment of 30 minutes, for example 10:30-12:30 or 18:00-20:30).

You do not have to be very accurate, please just provide a general time window, if you are unsure about the timing.

17. From all the aspects mentioned in the last question, please select **5 aspects that are most important** to you when you visit any beach. *

Check all that apply.

- Comfortable sand texture
- Comfortable sand temperature
- Comfortable water temperature
- Water is neither too deep nor too shallow for my activities
- Clear water
- Calm waves
- Beach is wide enough for my activities
- Presence of big granite rocks on land
- A clear view on to the ocean from the beach
- Presence of vegetation on land
- Presence of marine life
- There are no seaweed on shorelines
- Enough natural shades provided at the beach
- No garbage / litter at the beach
- Noise level of people is low
- Noise level of road traffic is low
- Road traffic emissions are low (concerning air quality)
- No unpleasant odors
- No stray dogs
- Facilities and services provided at the beach (toilets, trash bins, restaurants etc.)
- Leisure activities provided at the beach (diving, snorkelling etc.)
- I feel safe leaving my belongings unattended
- Good accessibility to the beach
- No opinion / Not applicable

Crowdedness

18. The following two questions are about **crowdedness**. During your visit, how did you perceive the amount of people at the beach? The scale used here goes from 1 to 5. *

1 means that there were **almost no people** at the beach.

3 means that there were **some people** at the beach.

5 means that there were **a lot of people** at the beach.

Mark only one oval per row.

	1	2	3	4	5	No opinion / Not applicable
Crowdedness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. Did you experience any **discomfort because of overcrowding**? *

Check all that apply.

- Yes
- No
- No opinion / Not applicable

Conflicts

20. Have you experienced any **conflicts with other beachgoers**? If so, what was it about?

You can also describe conflicts between beachgoers that you personally witnessed, but were not involved in.

If you did not experience/witness any conflicts, then you can skip this question.

Suggestions to improve this beach

21. Do you have any **suggestions to improve this beach**?

For example, you wish there were more leisure activities or facilities and services offered at this beach. Or you wish there were measures to limit the amount of people at this beach.

If you do not have any suggestions, then you can skip this question.

You are almost done with the survey!

22. Do you have any **other comments** regarding your beach experience?

Thank you for taking your time to complete our survey. Should you have any questions concerning this survey, feel free to ask us directly or contact us via tdcs2023@usys.ethz.ch.

Seychelles Beach Survey - Beau Vallon

This survey is conducted by students from **ETH Zurich university (Switzerland)**, who are undertaking the '**Transdisciplinary Case Study**' program. This case study is a multi-disciplinary approach that spans across Master's courses. We integrate local and scientific knowledge through data collection and research. Our study aims to deduce **tourist and local perceptions of beach experience and beach quality in the Seychelles**. One method of analysing this is through collecting survey data.

The data collected from surveys will be used for research purposes to be published in a scientific report, however this will all be **completely anonymous**. All data will be processed in accordance with the Swiss Federal Act on Data Protection. This survey was reviewed and approved by the ETH Zurich Ethics Commission.

This survey will take **ca. 10 minutes to complete**. We thank you in advance for participating in this survey. Should you have any questions concerning this survey, feel free to ask us directly or contact us via tdcs2023@usys.ethz.ch.

* Indicates required question

1. Declaration of consent *

Check all that apply.

- I hereby confirm that I am 18 years or older and voluntarily consent to my responses being used in anonymized survey (please be aware that all questions with a red asterick are mandatory questions that have to be answered).
- I do not consent and will not take part in this survey (you can now close this survey if you chose this option).

Date and time

2. Beau Vallon Zone *

Check all that apply.

- A
- B
- C
- D
- E

You are almost done with the survey!

22. Do you have any **other comments** regarding your beach experience?

Thank you for taking your time to complete our survey. Should you have any questions concerning this survey, feel free to ask us directly or contact us via tdcs2023@usys.ethz.ch.

Appendix 1.2 Methodology

Table 1.1
Table identifying the key land use of each zone at Beau Vallon.

Zone	Facilities	Land-use
A	<ul style="list-style-type: none"> • EQUINOXE Diving School • Sea and Surf Seychelles • Baobab Pizzeria • Mare Anglaise River 	Water-based activities
B	<ul style="list-style-type: none"> • Construction • La Plage (restaurant) • Leo's Food Bus (food kiosk) • Green Coconut (food kiosk) • K Food Catering (food kiosk) • Two car parks • Bord Mer Villas 	Food kiosks and restaurants
C	<ul style="list-style-type: none"> • Bazar Labrin Market • Beau Vallon Boat Excursions • Savoy Seychelles Resort and Spa • Mahek (restaurant) 	Tourist activities, promenade
D	<ul style="list-style-type: none"> • Coral Strand Smart Choice Hotel • Villa Mimi • Chateau Elysium • Berjaya Beau Vallon Bay Resort and Casino • Beach bar • Indian restaurant 	Hotels and restaurants with access to beach
E	<ul style="list-style-type: none"> • Eden (restaurant) • STORY Seychelles 	Luxury restaurants, access from Bel ombre road

Table 1.2
The table to generate water quality MPN/100mL values (Aquagenx, n.d)¹.

Compartment #					MPN/100ml	Upper 95% confidence interval/100ml	Health risk category based on MPN and confidence interval
1 10ml	2 30ml	3 56ml	4 3ml	5 1ml			
					0.0	2.87	Low risk/safe
					1.0	5.14	Intermediate risk/ probably safe
					1.0	4.74	
					1.1	5.16	
					1.2	5.64	
					1.5	7.81	
					2.0	6.32	
					2.1	6.85	
					2.1	6.64	
					2.4	7.81	
					2.4	8.12	
					2.6	8.51	
					3.2	8.38	
					3.7	9.70	
					3.1	11.36	Intermeditae risk/ possibly safe
					3.2	11.82	
					3.4	12.53	
					3.9	10.43	
					4.0	10.94	
					4.7	22.75	
					5.2	14.73	
					5.4	12.93	
					5.6	17.14	
					5.8	16.87	
					8.4	21.19	
					9.1	37.04	
					9.6	37.68	
					13.6	83.06	High risk/possibly unsafe
					17.1	56.35	High risk/probably unsafe
					32.6	145.55	
					48.3	351.91	
					>100	9,435.10	Unsafe

¹ https://assets.ctfassets.net/vcps67yikf8u/5lbfssqfSWqCo0U88GCAw/4ef1a9606f22cba7d79705ba3d096956/CBT_Instructions_EN.pdf



Figure 1.1
Two example images of counting crowds at Beau Vallon in Microsoft Paint (one for beach users on land and one for beach users in water).

Table 1.3
Time windows of counts at Anse Source d'Argent.

Day	Time windows (during which a singular counting was carried out)
Thursday, July 13th	16:00–17:00
Friday, July 14th	11:00–12:00, 12:00–13:00, 14:00–15:00, 16:–17:00
Saturday, July 15th	10:00–11:00, 11:–12:00

Appendix 1.3 Survey results

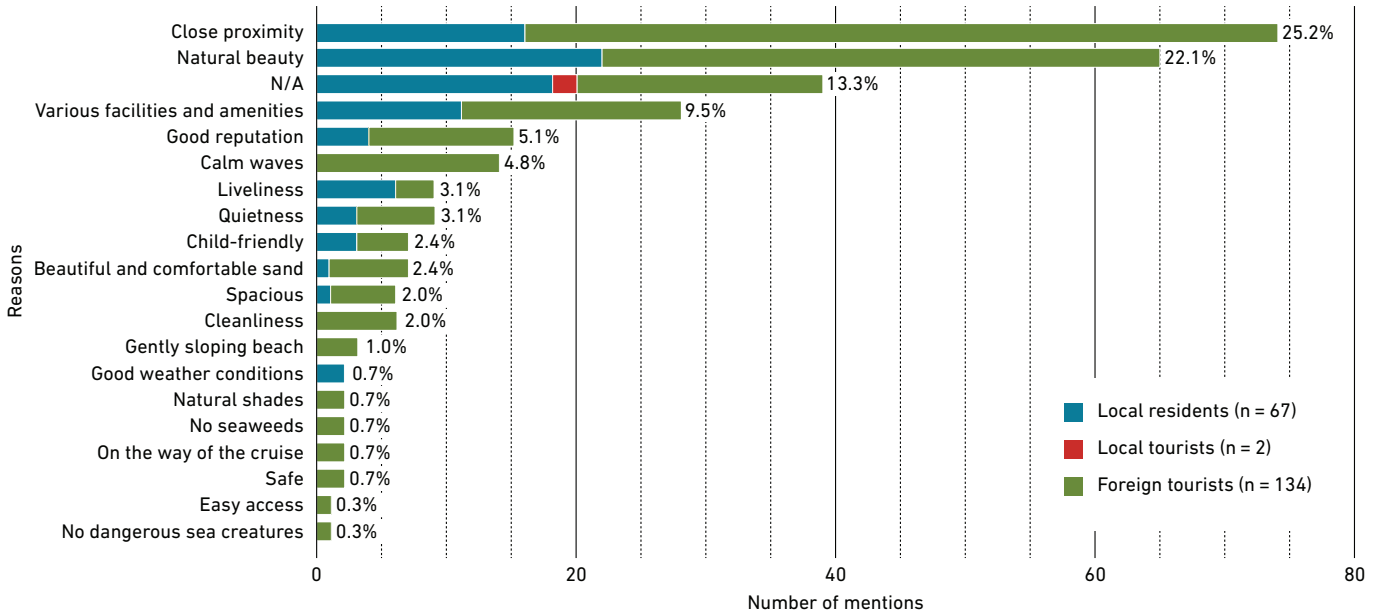


Figure 1.2
Beach users' reasons for choosing Beau Vallon besides the activities they did/wanted to do at the beach.

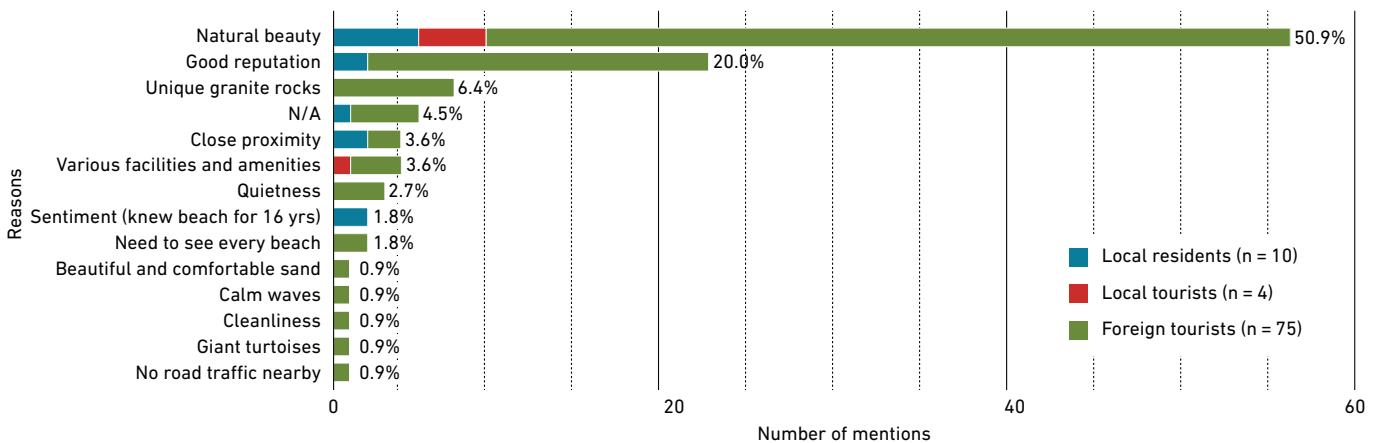


Figure 1.2
Beach users' reasons for choosing Beau Vallon besides the activities they did/wanted to do at the beach.

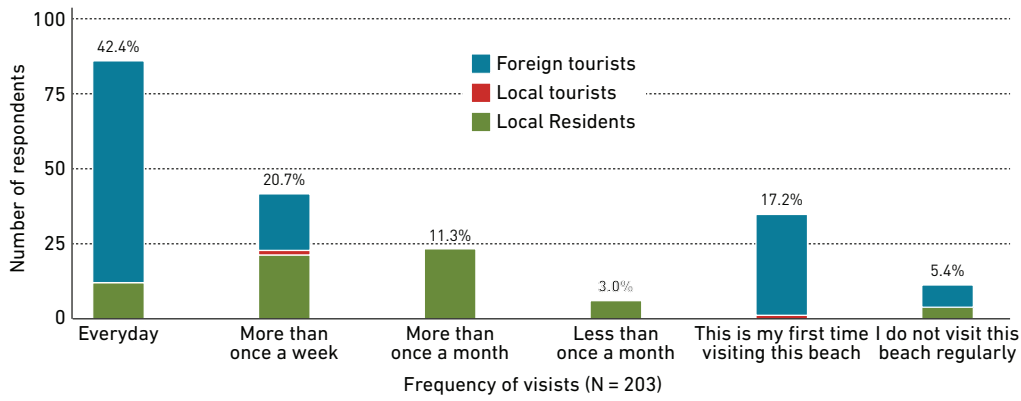


Figure 1.4
Frequency of visits at Beau Vallon.

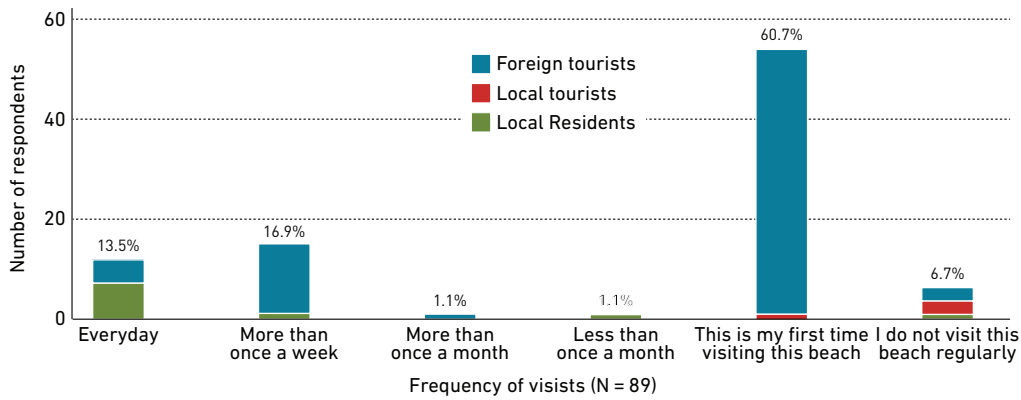


Figure 1.5
Frequency of visits at Anse Source d'Argent.

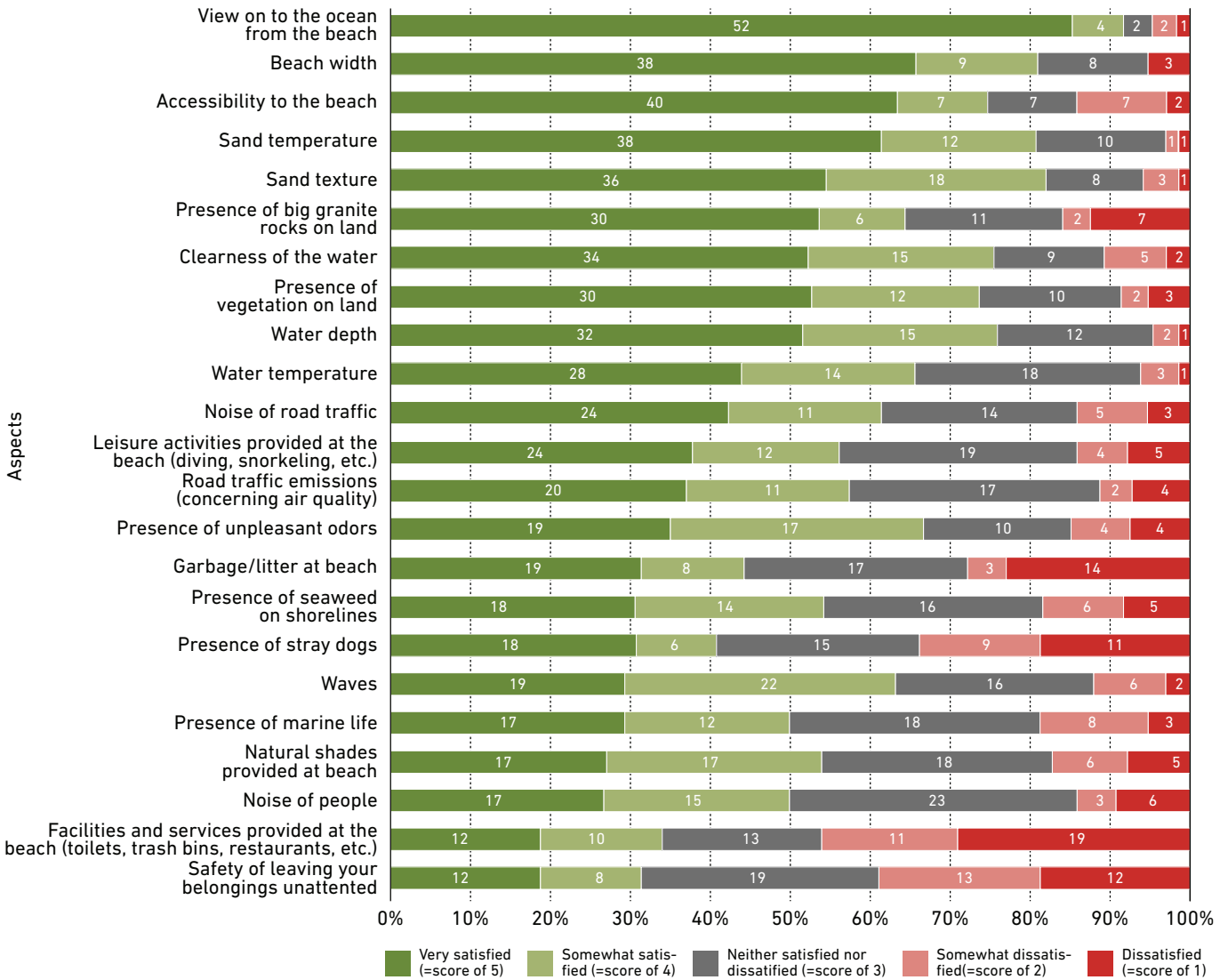


Figure 1.6
 A likert scale chart of local residents' satisfaction of certain aspects at Beau Vallon. While the x-axis is fixed at 100 percent, the white numbers at the end of each coloured bar represent the absolute number of mentions of each likert scale number for each aspect. N/A values are not included in this figure.

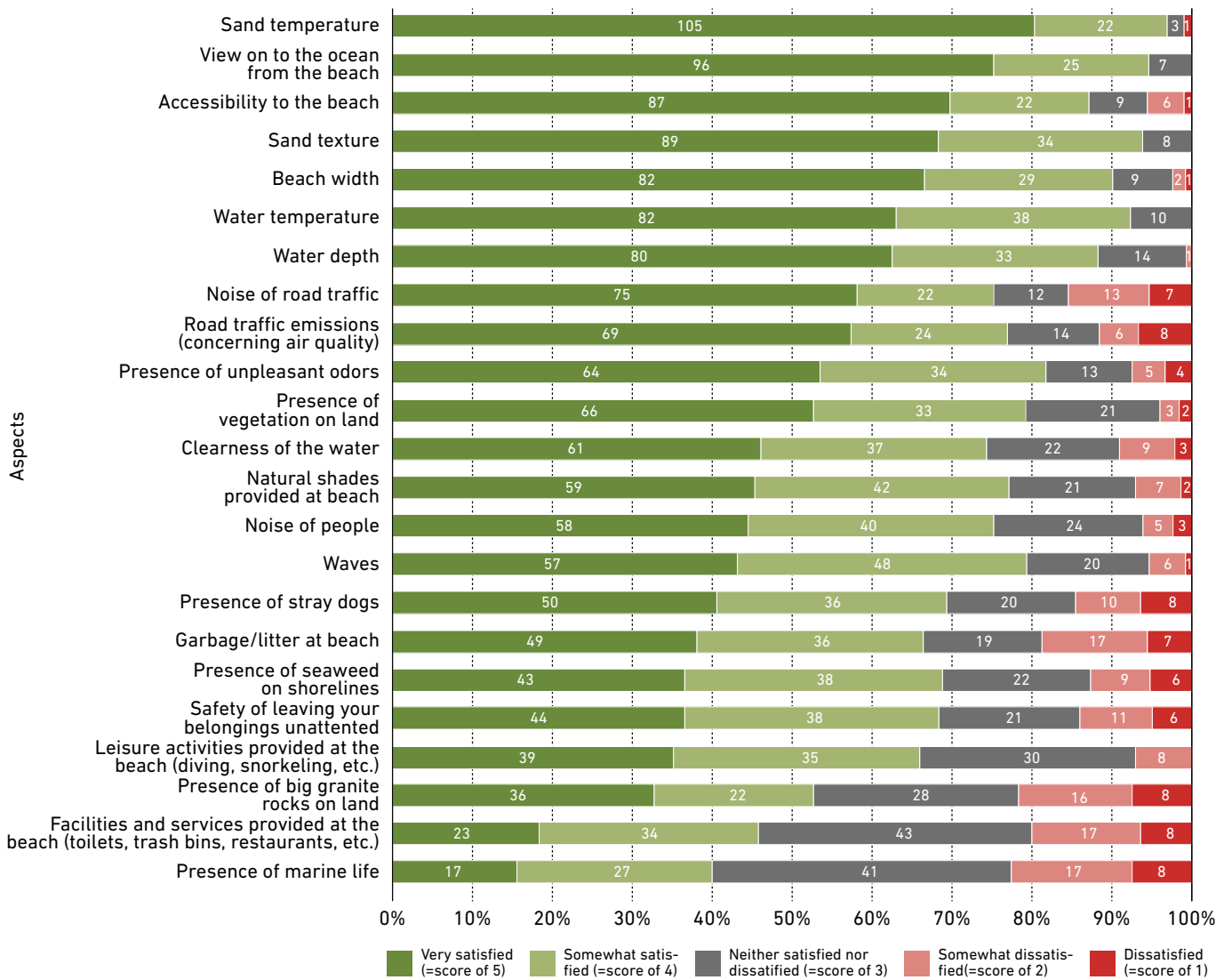


Figure 1.7
 A likert scale chart of foreign tourists' satisfaction of certain aspects at Beau Vallon. While the x-axis is fixed at 100 percent, the white numbers at the end of each coloured bar represent the absolute number of mentions of each likert scale number for each aspect. N/A values are not included in this figure.

Table 1.4
Means for satisfaction levels at Beau Vallon.

Weighted means	Aspects/satisfaction
4.2	Sand texture
4.0	Sand temperature
3.8	Water temperature
3.9	Water depth
4.0	Clearness of the water
3.7	Waves
3.8	Beach width
3.3	Presence of big granite rocks on land
4.3	View on to the ocean from the beach
3.5	Presence of vegetation on land
3.1	Presence of marine life
3.1	Presence of seaweed on shorelines
3.3	Natural shades provided at beach
3.0	Garbage/litter at beach
3.4	Noise of people
3.3	Noise of road traffic
3.0	Road traffic emissions (concerning air quality)
3.1	Presence of unpleasant odors
2.8	Presence of stray dogs
2.7	Facilities and services provided at the beach (toilets, trash bins, restaurants, etc.)
3.6	Leisure activities provided at the beach (diving, snorkeling, etc.)
2.8	Safety of leaving your belongings unattended
4.0	Accessibility to the beach

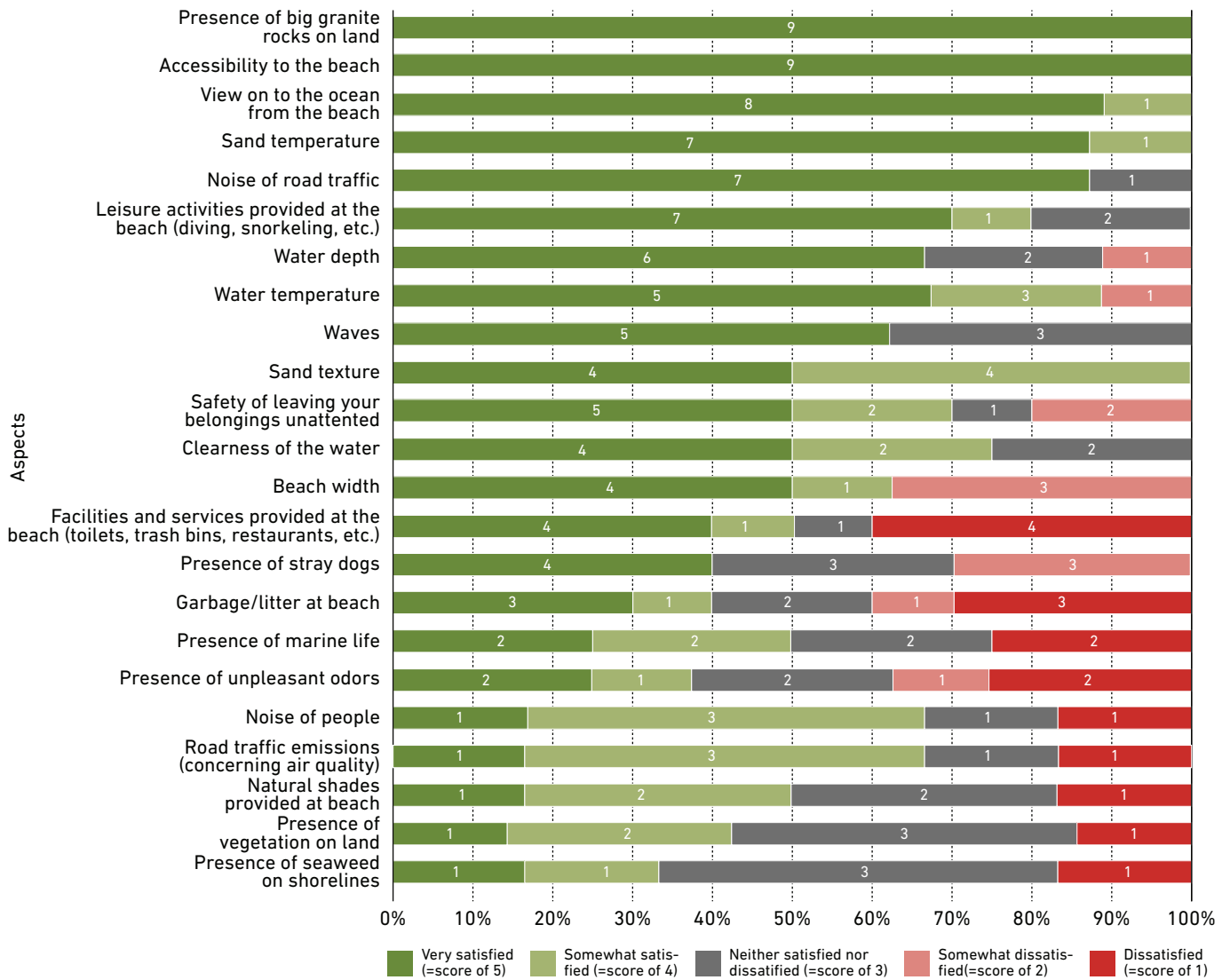


Figure 1.8
 A likert scale chart of local residents' satisfaction of certain aspects at Anse Source d'Argent. While the x-axis is fixed at 100 percent, the white numbers at the end of each coloured bar represent the absolute number of mentions of each likert scale number for each aspect. N/A values are not included in this figure.

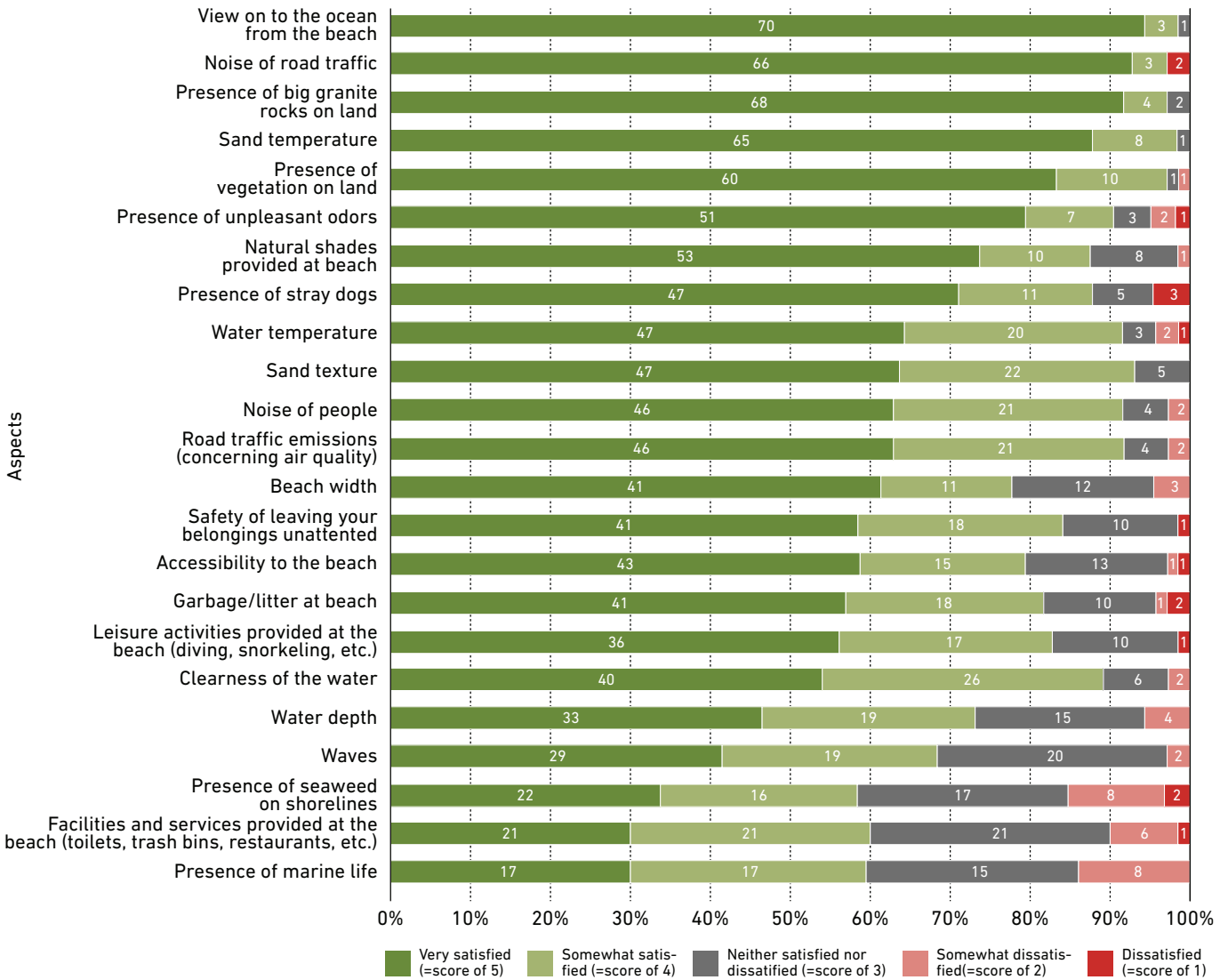


Figure 1.9
 A likert scale chart of foreign tourists' satisfaction of certain aspects at Anse Source d'Argent. While the x-axis is fixed at 100 percent, the white numbers at the end of each coloured bar represent the absolute number of mentions of each likert scale number for each aspect. N/A values are not included in this figure.

Table 1.5
Means for satisfaction levels at Anse Source d'Argent.

Weighted means	Aspects/satisfaction
4.4	Sand texture
4.6	Sand temperature
4.3	Water temperature
3.9	Water depth
4.2	Clearness of the water
3.7	Waves
3.8	Beach width
4.8	Presence of big granite rocks on land
4.7	View on to the ocean from the beach
4.4	Presence of vegetation on land
2.9	Presence of marine life
3.2	Presence of seaweed on shorelines
4.3	Natural shades provided at beach
4.0	Garbage/litter at beach
4.2	Noise of people
4.4	Noise of road traffic
4.2	Road traffic emissions (concerning air quality)
3.7	Presence of unpleasant odors
3.9	Presence of stray dogs
3.4	Facilities and services provided at the beach (toilets, trash bins, restaurants, etc.)
3.8	Leisure activities provided at the beach (diving, snorkeling, etc.)
4.1	Safety of leaving your belongings unattended
4.2	Accessibility to the beach

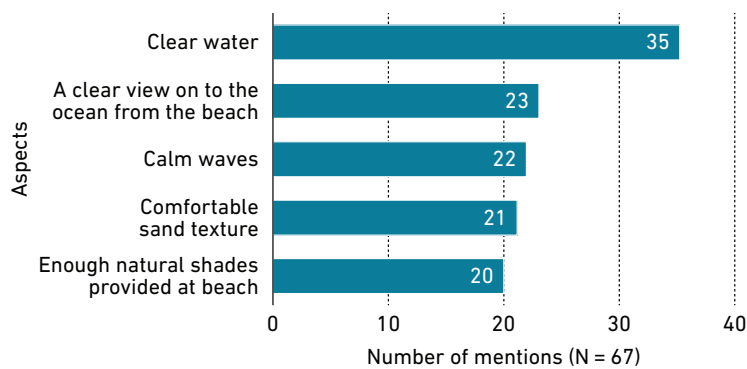


Figure 1.10
The five most important general beach aspects mentioned by local residents, data from Beau Vallon (N/A values not included).

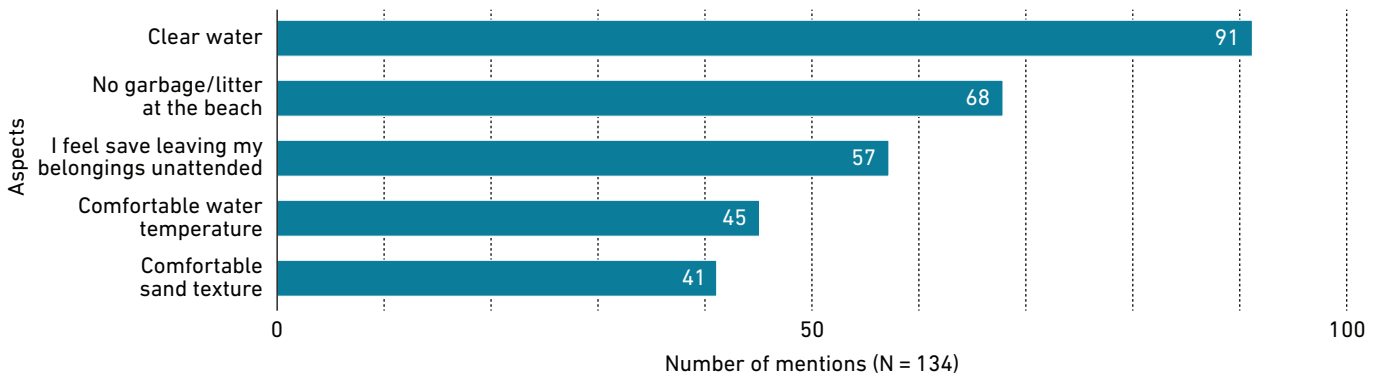


Figure 1.11 The five most important general beach aspects mentioned by foreign tourists, data from Beau Vallon (N/A values not included).

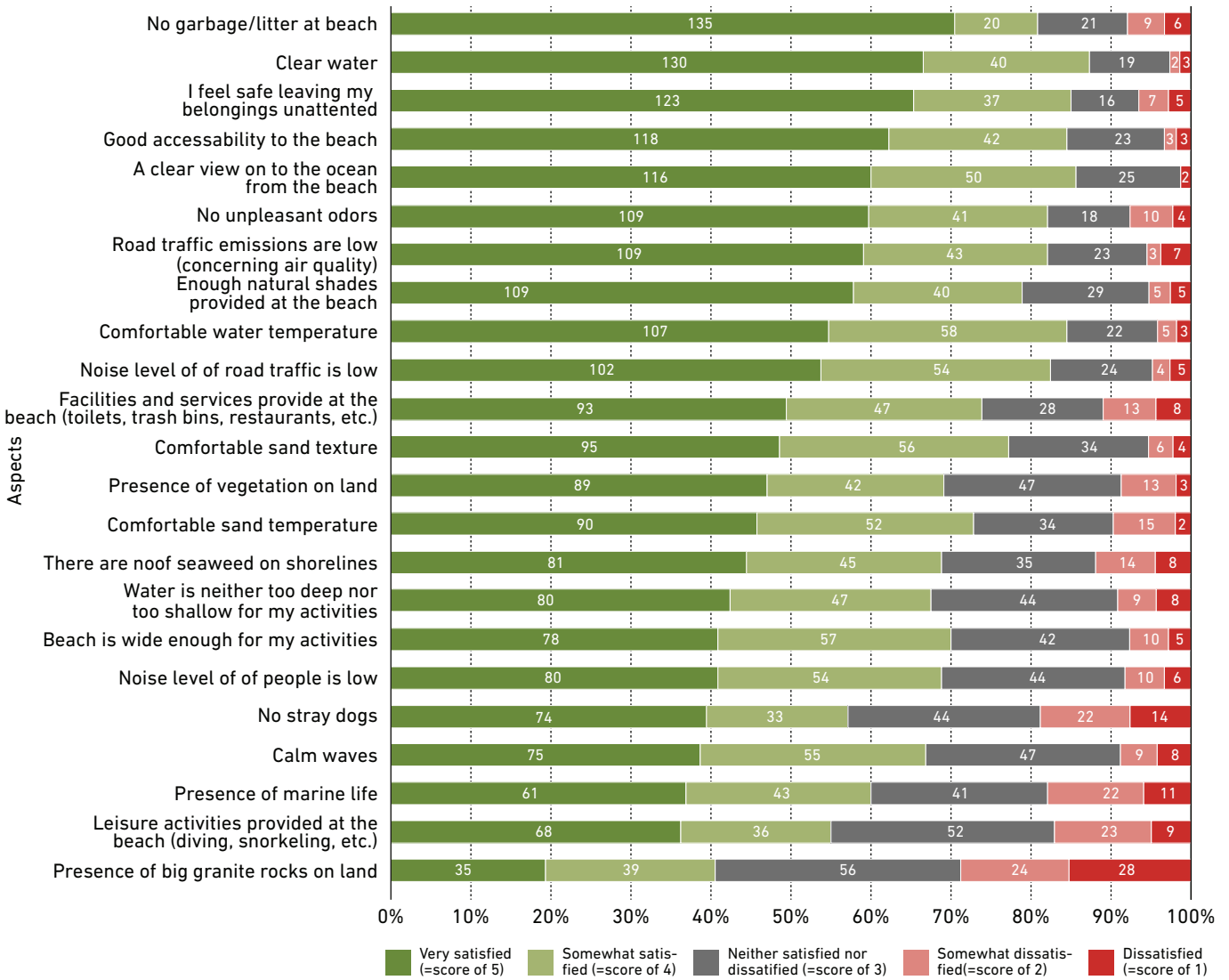


Figure 1.12 A Likert scale chart of importance of certain aspects for all beach users at Beau Vallon. While the x-axis is fixed at 100 percent, the white numbers at the end of each coloured bar represent the absolute number of mentions of each Likert scale number for each aspect. N/A values are not included in this figure.

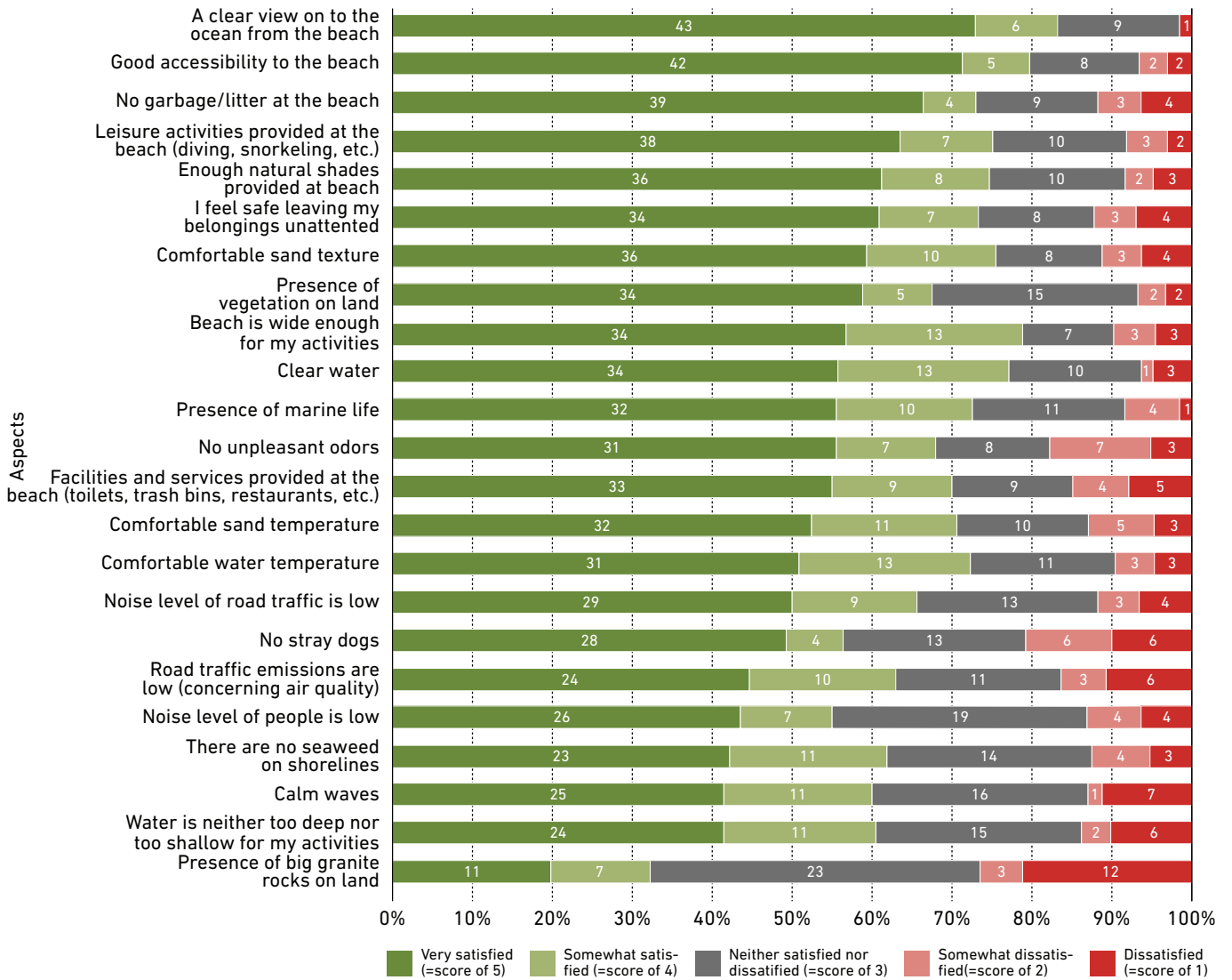


Figure 1.13
 A Likert scale chart of importance of certain aspects for local residents at Beau Vallon. While the x-axis is fixed at 100 percent, the white numbers at the end of each coloured bar represent the absolute number of mentions of each Likert scale number for each aspect. N/A values are not included in this figure.

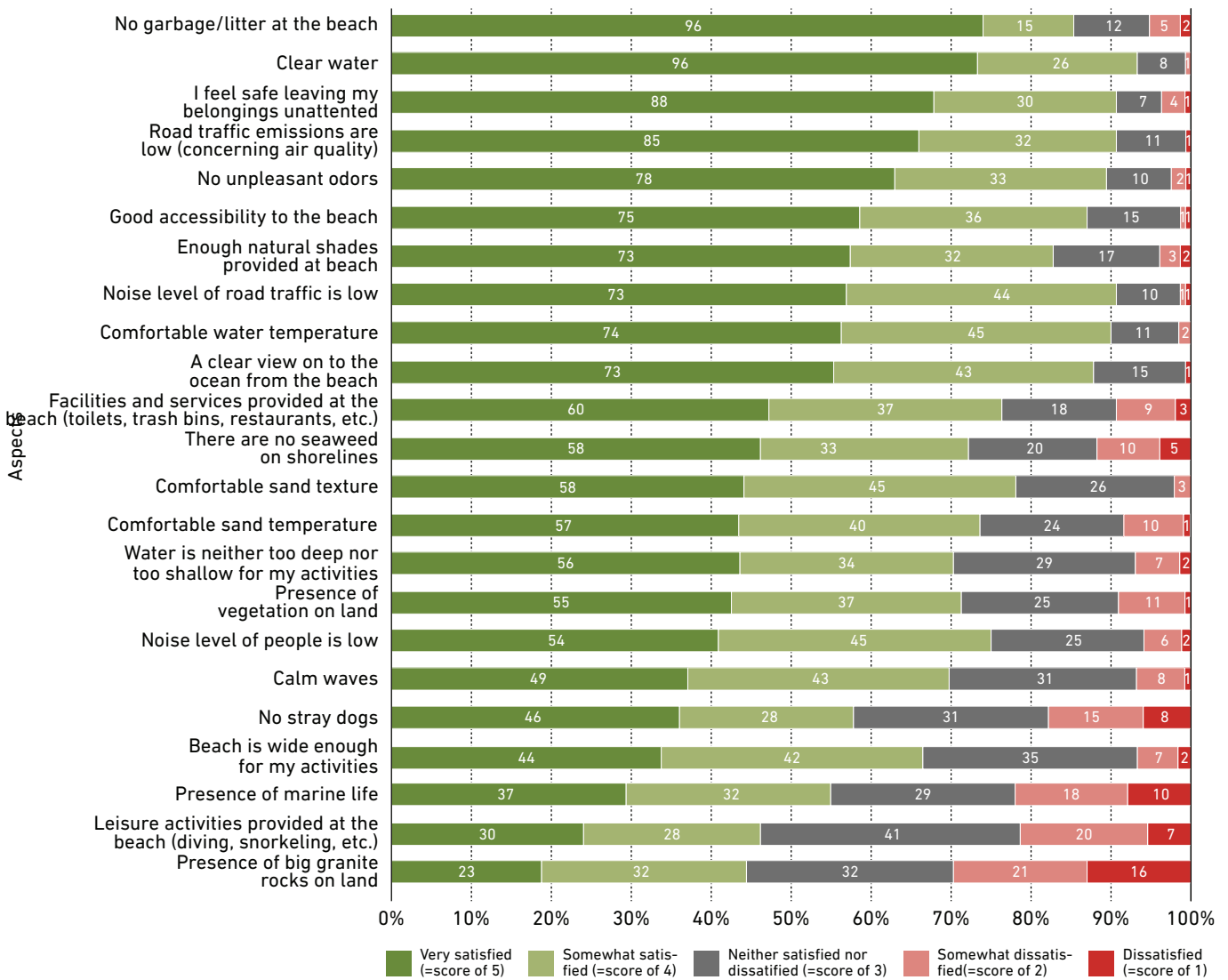


Figure 1.14
 A Likert scale chart of importance of certain aspects for foreign tourists at Beau Vallon. While the x-axis is fixed at 100 percent, the white numbers at the end of each coloured bar represent the absolute number of mentions of each Likert scale number for each aspect. N/A values are not included in this figure.

Table 1.6
Means for importance level at Beau Vallon.

Weighted means	Aspects/importance
4.1	Comfortable sand texture
4.0	Comfortable sand temperature
4.4	Comfortable water temperature
3.9	Water is neither too deep nor too shallow for my activities
4.6	Clear water
3.9	Calm waves
3.8	Beach is wide enough for my activities
3.0	Presence of big granite rocks on land
4.4	A clear view on to the ocean from the beach
3.9	Presence of vegetation on land
3.3	Presence of marine life
3.8	There are no seaweed on shorelines
4.1	Enough natural shades provided at beach
4.4	No garbage/litter at beach
4.0	Noise level of people is low
4.3	Noise level of road traffic is low
4.4	Road traffic emissions are low (concerning air quality)
4.2	No unpleasant odors
3.5	No stray dogs
3.9	Facilities and services provided at the beach (toilets, trash bins, restaurants, etc.)
3.2	Leisure activities provided at the beach (diving, snorkeling, etc.)
4.4	I feel save leaving my belongings unattended
4.2	Good accessibility to the beach

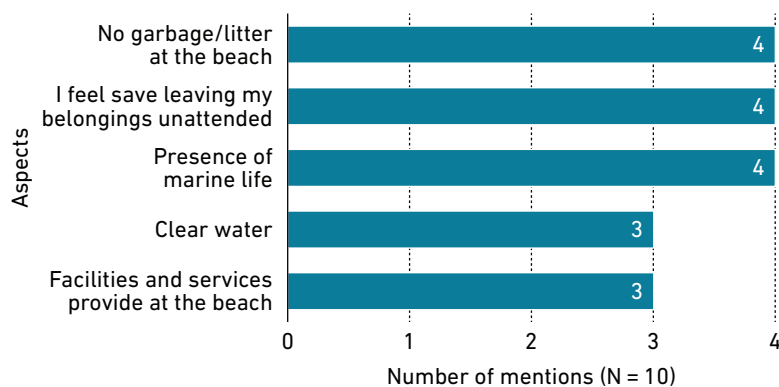


Figure 1.15
The five most important general beach aspects mentioned by local residents, data from Anse source d'Argent (N/A values not included).

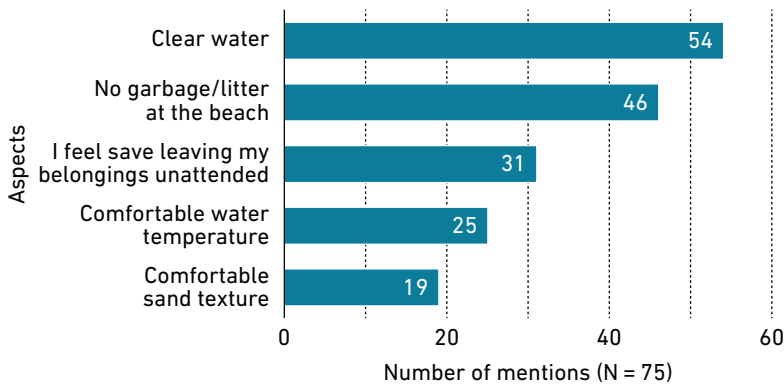


Figure 1.16
The five most important general beach aspects mentioned by foreign tourists, data from Anse source d'Argent (N/A values not included).

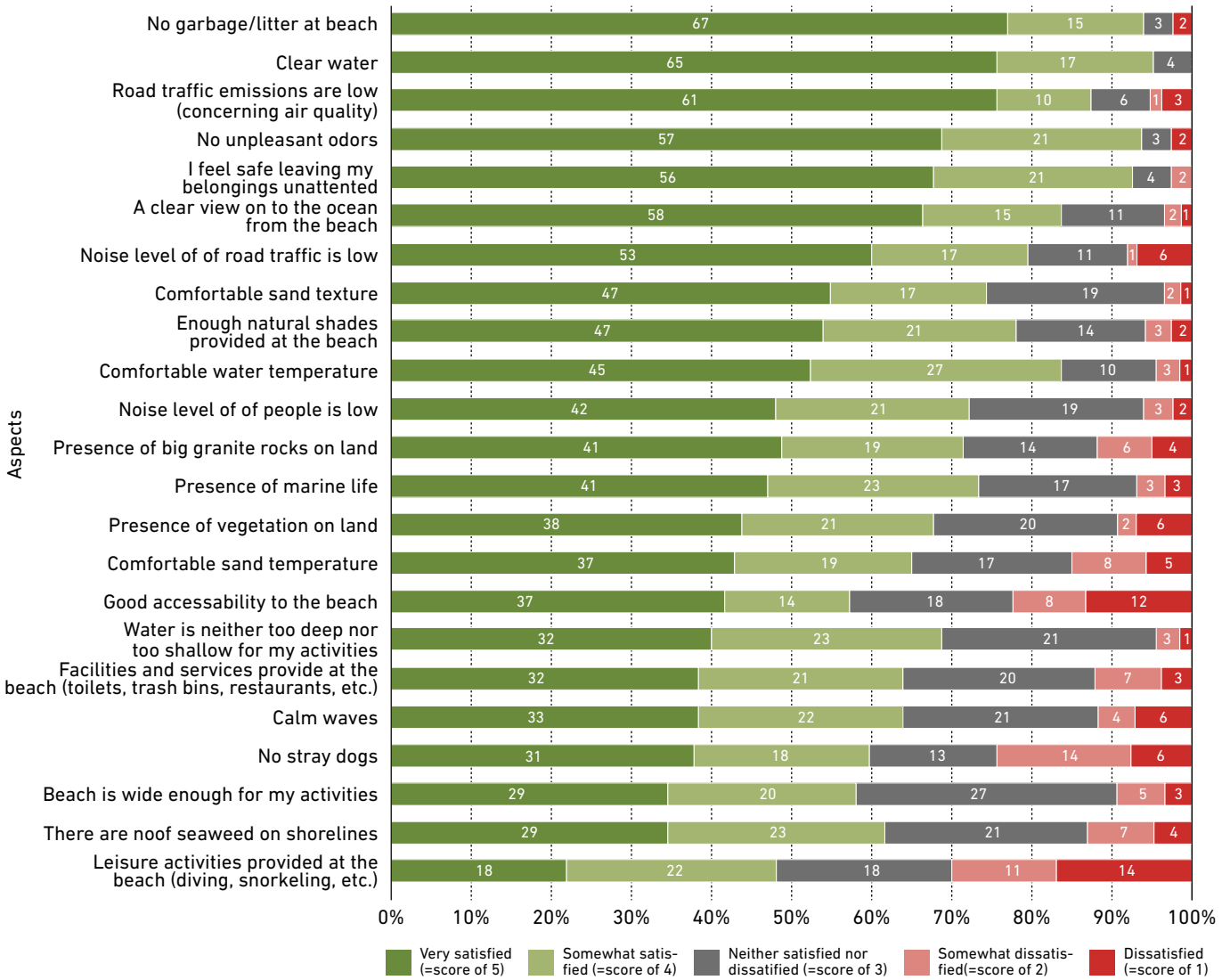


Figure 1.17
A Likert scale chart of importance of certain aspects for all beach users at Anse Source d'Argent. While the x-axis is fixed at 100 percent, the white numbers at the end of each coloured bar represent the absolute number of mentions of each Likert scale number for each aspect. N/A values are not included in this figure.

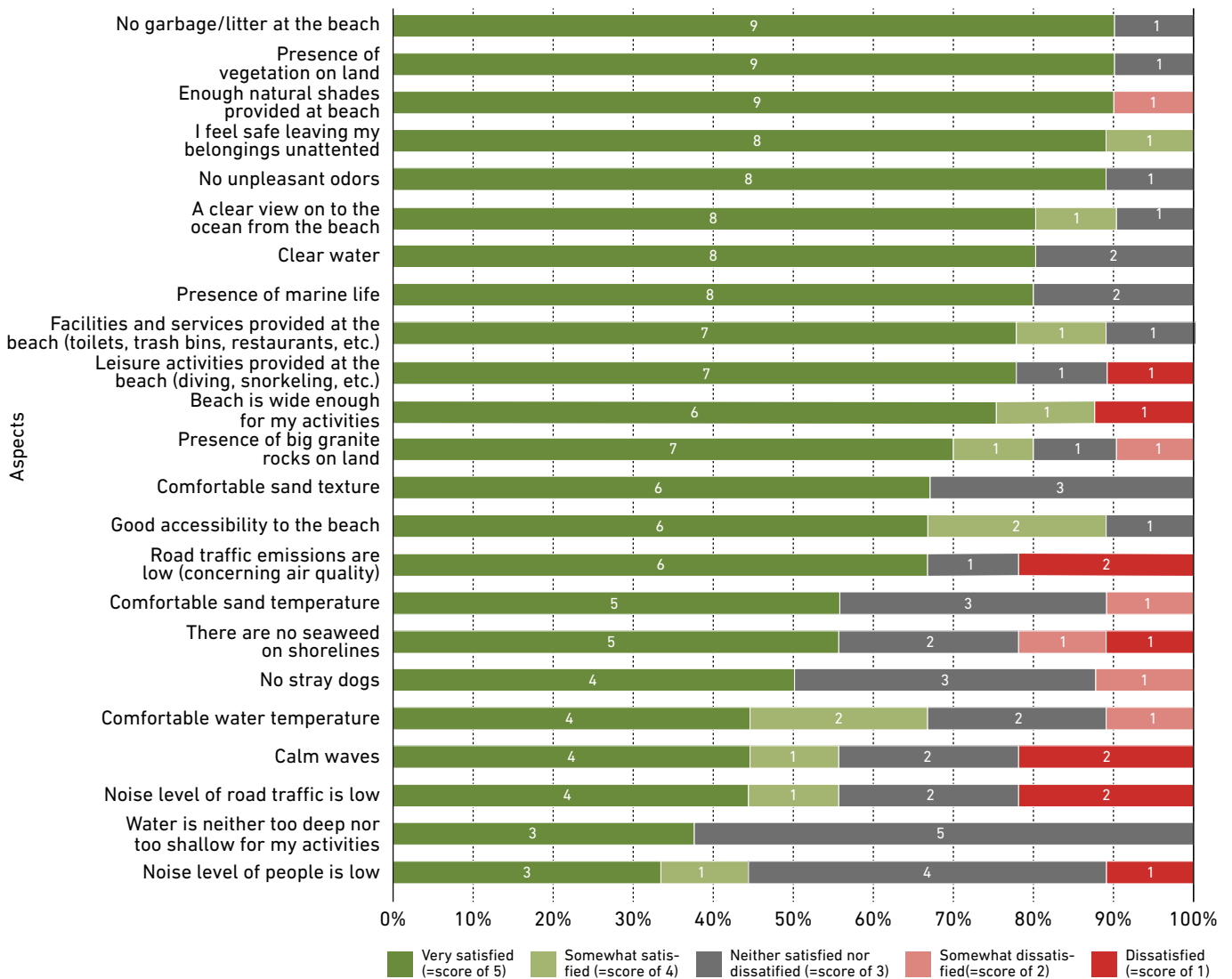


Figure 1.18 A likert scale chart of importance of certain aspects for local residents at Anse Source d'Argent. While the x-axis is fixed at 100 percent, the white numbers at the end of each coloured bar represent the absolute number of mentions of each likert scale number for each aspect. N/A values are not included in this figure.

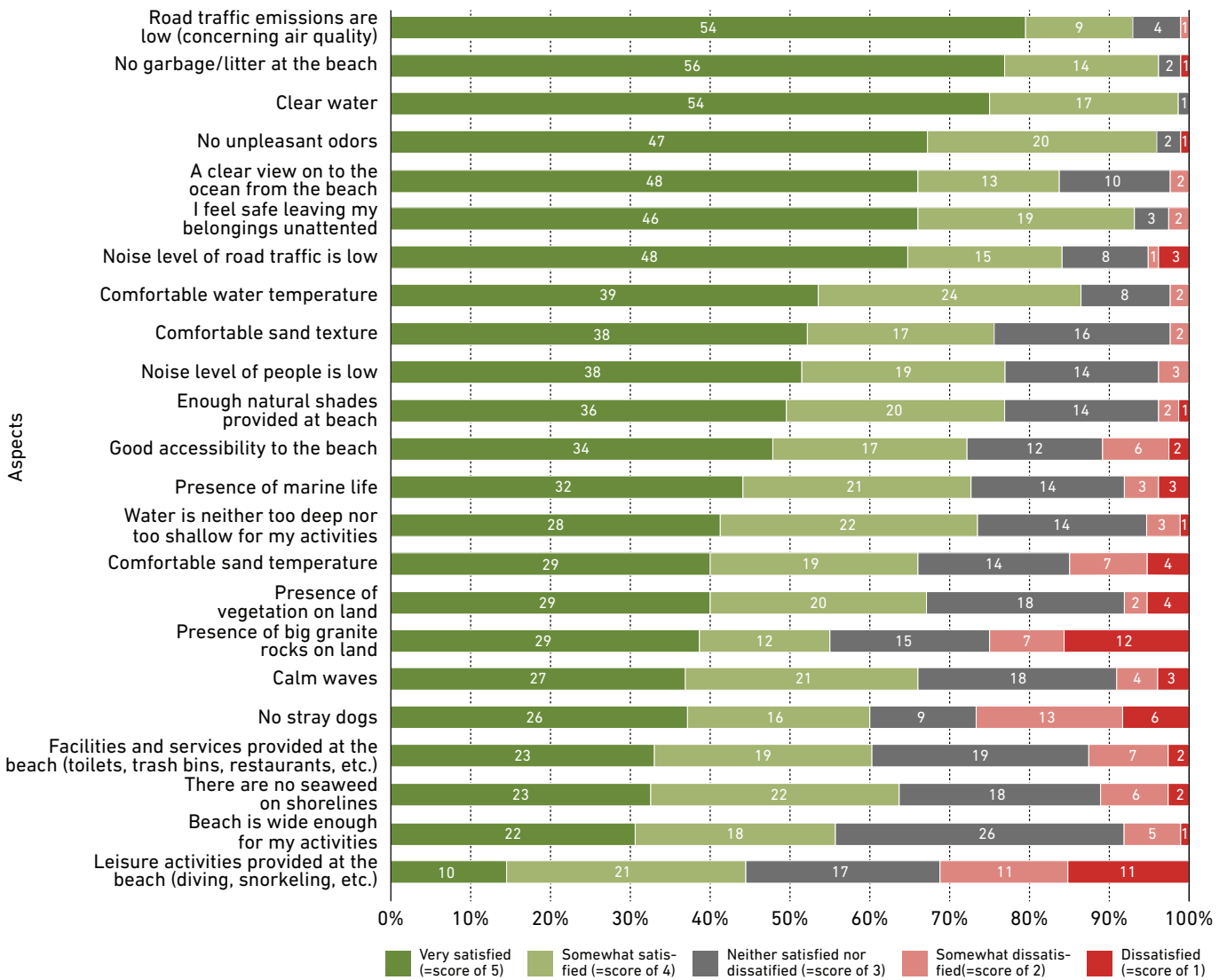


Figure 1.19
 A Likert scale chart of importance of certain aspects for foreign tourists at Anse Source d'Argent. While the x-axis is fixed at 100 percent, the white numbers at the end of each coloured bar represent the absolute number of mentions of each Likert scale number for each aspect. N/A values are not included in this figure.

Table 1.7
Means for importance level at Anse Source d'Argent.

Weighted means	Aspects/importance
4.1	Comfortable sand texture
3.7	Comfortable sand temperature
4.3	Comfortable water temperature
3.7	Water is neither too deep nor too shallow for my activities
4.5	Clear water
3.8	Calm waves
3.6	Beach is wide enough for my activities
3.5	Presence of big granite rocks on land
4.3	A clear view on to the ocean from the beach
3.8	Presence of vegetation on land
3.9	Presence of marine life
3.6	There are no seaweed on shorelines
4.1	Enough natural shades provided at beach
4.6	No garbage/litter at beach
4.2	Noise level of people is low
4.4	Noise level of road traffic is low
4.3	Road traffic emissions are low (concerning air quality)
4.3	No unpleasant odors
3.4	No stray dogs
3.5	Facilities and services provided at the beach (toilets, trash bins, restaurants, etc.)
2.9	Leisure activities provided at the beach (diving, snorkeling, etc.)
4.3	I feel safe leaving my belongings unattended
3.8	Good accessibility to the beach

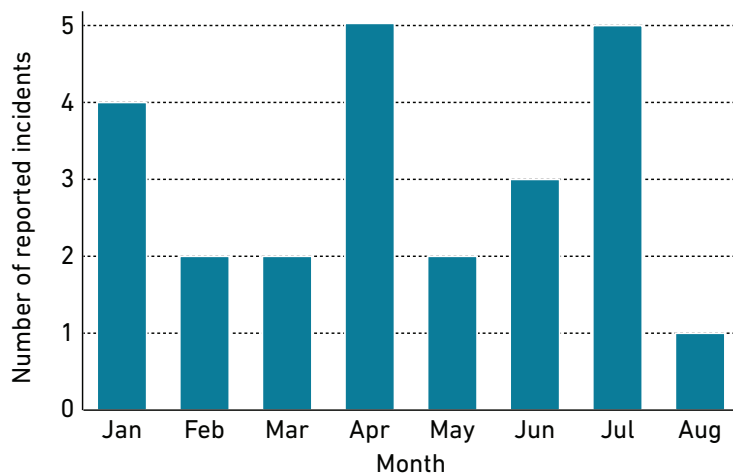


Figure 1.20
Number of reported theft incidents between January 2023 and August 2023 at Beau Vallon.

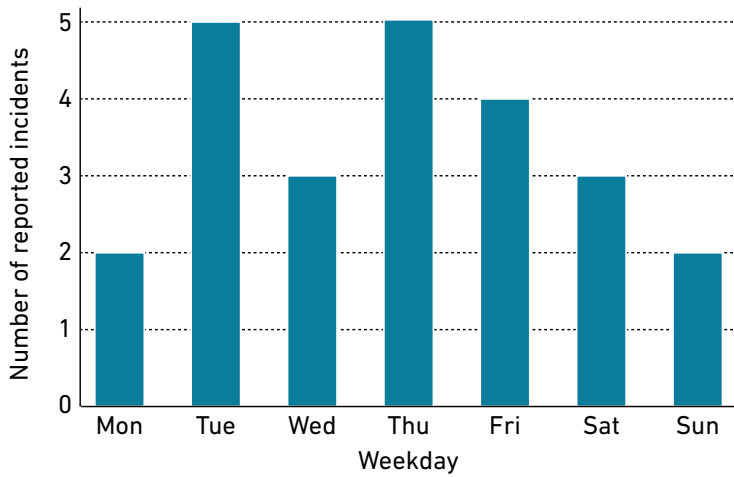


Figure 1.21
 Number of reported theft incidents per week day between January 2023 and August 2023 at Beau Vallon.

Appendix 1.4 Water quality assessment results



Figure 1.22
 An example showing the water quality test results for *E. Coli* at Beau Vallon (Saturday 08.07.2023).



Figure 1.23
 An example showing the water quality test results for Total coliform at Beau Vallon (Saturday 08.07.2023).



Figure 1.24
 An example showing the water quality test results for *E. coli* at Anse Source d'Argent (Friday 14.07.2023).

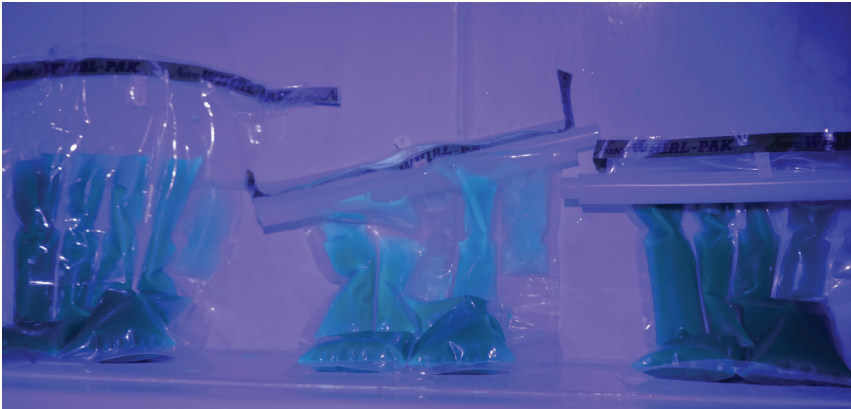


Figure 1.25
An example showing the water quality test results for Total coliform at Anse Source d'Argent (Friday 14.07.2023).

Appendix 1.5 Litter assessment results

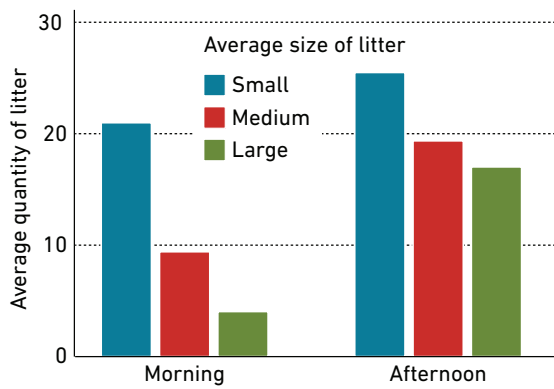


Figure 1.26
The average size of litter at Beau Vallon.

Appendix 1.6 Crowdedness assessment results

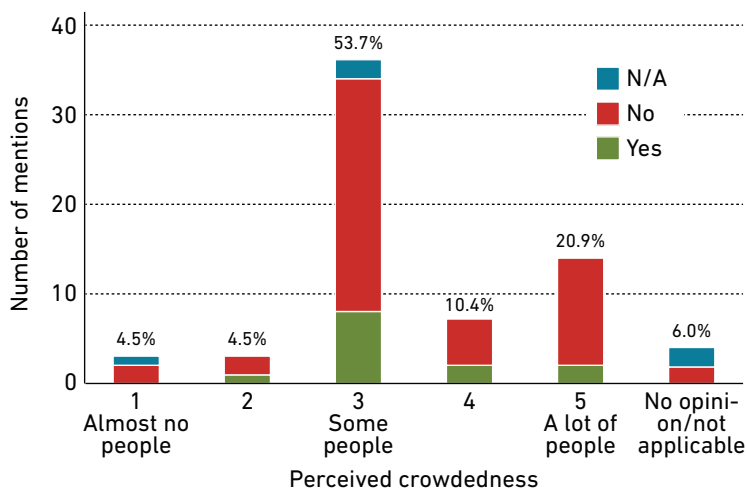


Figure 1.27
Distribution of perceived crowdedness by local residents over all four survey days at Beau Vallon.

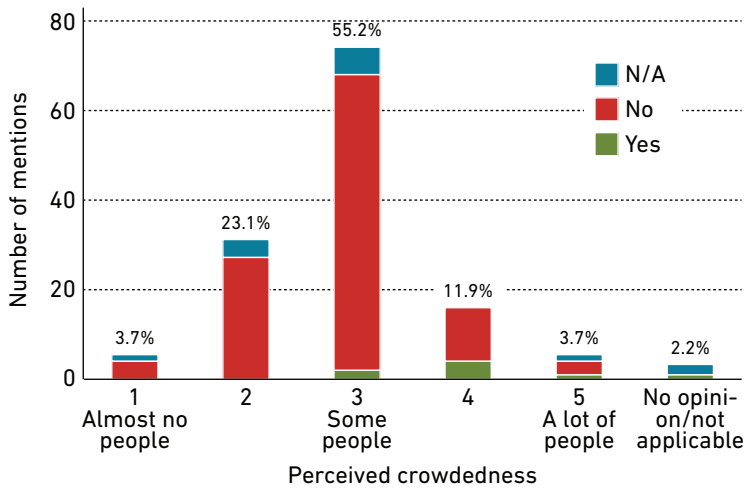


Figure 1.28 Distribution of perceived crowdedness by foreign tourists over all four survey days at Beau Vallon.

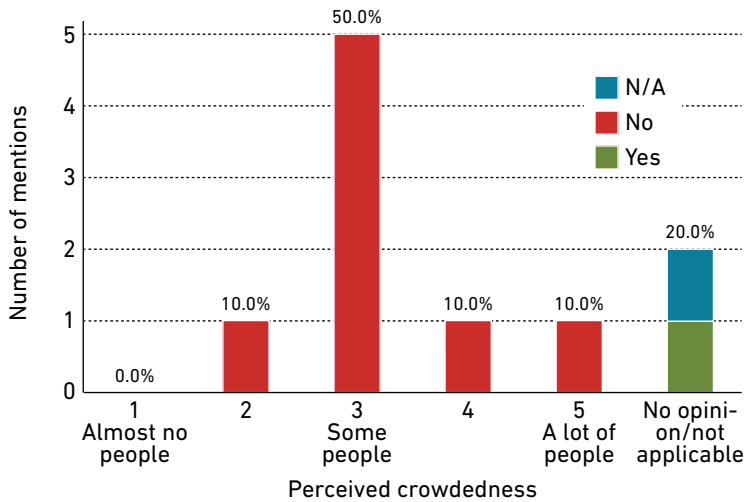


Figure 1.29 Distribution of perceived crowdedness by local residents over all three survey days at Anse Source d'Argent.

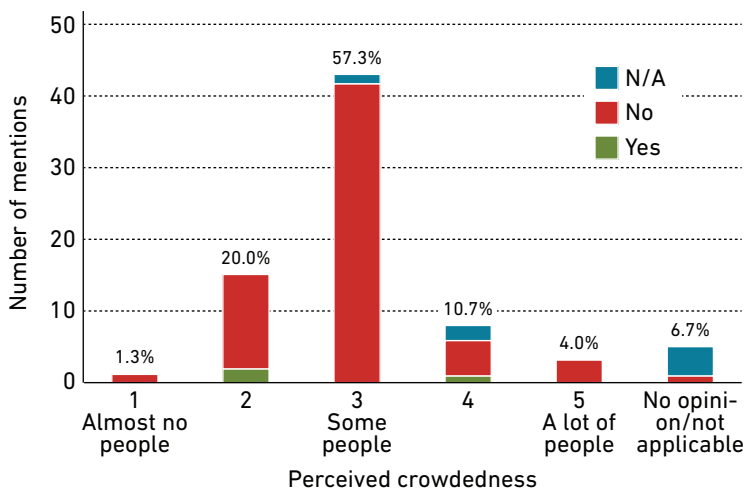


Figure 1.30 Distribution of perceived crowdedness by foreign tourists over all three survey days at Anse Source d'Argent.

Table 1.8 The Excel sheets containing the number of beach users at Beau Vallon.

Date/time	A	
	Beach	Water
Tuesday, 2023.07.04		
11:00–12:00	52	1
	Total A	53
	% A	14.52
	% Beach A	98.11
14:30–15:30	51	11
	Total A	62
	% A	21.75
	% Beach A	82.26
17:00–18:00	67	8
	Total A	75
	% A	20.00
	% Beach A	89.33
Wednesday, 2023.07.05		
11:00–12:00	66	4
	Total A	70
	% A	18.09
	% Beach A	94.29
14:30–15:30	69	7
	Total A	76
	% A	21.11
	% Beach A	90.79
17:00–18:00	73	20
	Total A	93
	% A	26.12
	% Beach A	78.49
% Water A		
	21.51	

B		C		D		E		Total		Total
Beach	Water	Beach	Water	Beach	Water	Beach	Water	Beach	Water	
3	0	71	8	105	12	112	1	343	22	365
Total B	3	Total C	79	Total D	117	Total E	113	% Beach	% Water	
% B	0.82	% C	21.64	% D	32.05	% E	30.96	93.97	6.03	
% Beach B	100.00	% Beach C	89.87	% Beach D	89.74	% Beach E	99.12			
% Water B	0.00	% Water C	10.13	% Water D	10.26	% Water E	0.88			
8	0	49	7	87	31	32	9	227	58	285
Total B	8	Total C	56	Total D	31	Total E	41	% Beach	% Water	
% B	2.81	% C	19.65	% D	41.40	% E	14.39	79.65	20.35	
% Beach B	10.00	% Beach C	87.50	% Beach D	73.73	% Beach E	78.05			
% Water B	0.00	% Water C	12.50	% Water D	26.27	% Water E	21.95			
18	3	66	8	116	15	66	8	333	42	375
Total B	21	Total C	74	Total D	131	Total E	74	% Beach	% Water	
% B	7.37	% C	25.96	% D	45.96	% E	25.96	88.80	11.20	
% Beach B	85.71	% Beach C	89.19	% Beach D	88.55	% Beach E	89.19			
% Water B	14.29	% Water C	10.81	% Water D	11.45	% Water E	10.81			
4	1	73	18	115	26	63	17	321	66	387
Total B	5	Total C	91	Total D	141	Total E	80	% Beach	% Water	
% B	1.29	% C	23.51	% D	36.43	% E	20.67	82.95	17.05	
% Beach B	80.00	% Beach C	80.22	% Beach D	81.56	% Beach E	78.75			
% Water B	20.00	% Water C	19.078	% Water D	18.44	% Water E	21.25			
26	16	40	13	103	28	51	7	289	71	360
Total B	42	Total C	53	Total D	131	Total E	58	% Beach	% Water	
% B	11.67	% C	17.72	% D	36.39	% E	16.11	80.28	19.72	
% Beach B	61.90	% Beach C	75.47	% Beach D	78.63	% Beach E	87.93			
% Water B	38.10	% Water C	24.53	% Water D	21.37	% Water E	12.07			
13	5	72	15	109	10	35	4	302	54	356
Total B	18	Total C	87	Total D	119	Total E	39	% Beach	% Water	
% B	5.06	% C	24.44	% D	33.43	% E	10.96	84.83	15.17	
% Beach B	72.22	% Beach C	82.76	% Beach D	91.60	% Beach E	89.74			
% Water B	27.78	% Water C	17.24	% Water D	8.40	% Water E	10.26			

Table 1.8
Continued

Date/time	A		B		C		D		E	
	Beach	Water	Beach	Water	Beach	Water	Beach	Water	Beach	Water
Friday, 2023.07.07										
11:00–12:00	65	20	11	3	70	38	115	31	76	20
	Total A	85	Total B	14	Total C	108	Total D	146	Total E	96
	% A	18.93	% B	3.12	% C	24.05	% D	32.52	% E	21.38
	% Beach A	76.47	% Beach B	78.57	% Beach C	64.81	% Beach D	78.77	% Beach E	79.17
	% Water A	23.53	% Water B	21.43	% Water C	35.19	% Water D	21.23	% Water E	20.83
14:30–15:30	81	29	16	15	49	35	100	46	57	29
	Total A	110	Total B	31	Total C	84	Total D	146	Total E	86
	% A	24.07	% B	6.78	% C	18.38	% D	31.95	% E	18.82
	% Beach A	73.64	% Beach B	51.61	% Beach C	58.33	% Beach D	68.49	% Beach E	66.28
	% Water A	26.36	% Water B	48.39	% Water C	41.67	% Water D	31.51	% Water E	33.72
17:00–18:00	108	17	23	1	53	14	92	39	32	4
	Total A	125	Total B	24	Total C	67	Total D	131	Total E	36
	% A	32.64	% B	6.27	% C	17.49	% D	34.20	% E	9.40
	% Beach A	86.40	% Beach B	95.83	% Beach C	79.10	% Beach D	70.23	% Beach E	88.89
	% Water A	13.60	% Water B	4.17	% Water C	20.90	% Water D	29.77	% Water E	11.11
Saturday, 2023.07.08										
14:30–15:30	101	20	17	1	82	38	143	57	63	29
	Total A	121	Total B	18	Total C	120	Total D	200	Total E	92
	% A	21.96	% B	3.27	% C	21.78	% D	36.30	% E	16.70
	% Beach A	83.47	% Beach B	94.44	% Beach C	68.33	% Beach D	71.50	% Beach E	68.48
	% Water A	16.53	% Water B	5.56	% Water C	31.67	% Water D	28.50	% Water E	31.52
17:00–18:00	108	33	30	21	92	25	156	32	51	5
	Total A	141	Total B	51	Total C	117	Total D	188	Total E	56
	% A	25.60	% B	9.22	% C	21.16	% D	34.00	% E	10.13
	% Beach A	76.60	% Beach B	58.82	% Beach C	78.63	% Beach D	82.98	% Beach E	91.07
	% Water A	23.40	% Water B	41.18	% Water C	21.37	% Water D	17.02	% Water E	8.93

	Total Beach	Total Water	Total
	337	112	449
% Beach		% Water	
	75.06	24.94	
	303	154	457
% Beach		% Water	
	66.30	33.70	
	308	75	383
% Beach		% Water	
	80.42	19.58	
	406	145	551
% Beach		% Water	
	73.68	26.32	
	437	116	553
% Beach		% Water	
	79.02	20.98	

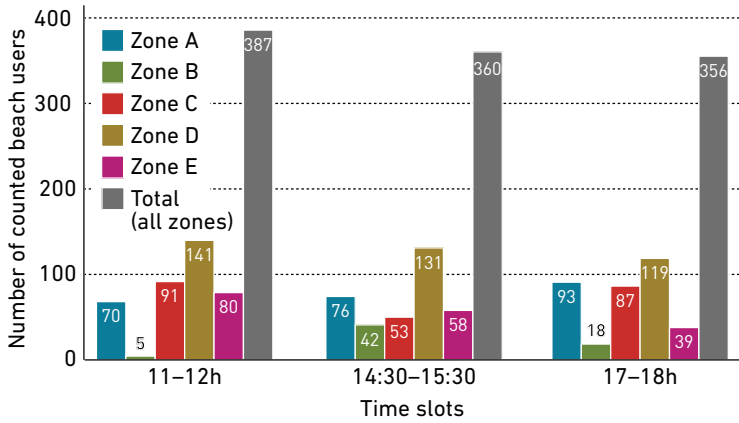


Figure 1.31 Actual crowdedness at Beau Vallon on Wednesday 05.07.2023.

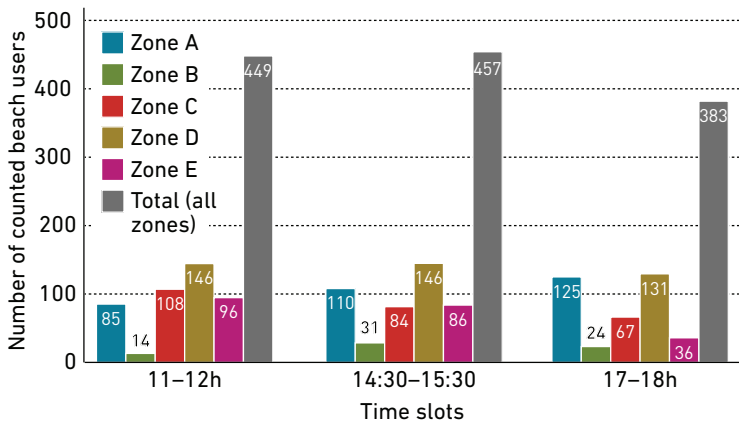


Figure 1.32 Actual crowdedness at Beau Vallon on Friday 07.07.2023.

Table 1.9 The Excel sheet containing the number of beach users at Anse Source d'Argent.

Date/time	A		Total	
	Beach	Water		
Thursday, 2023.07.13				
16:00-17:00		87	9	96
	% Beach	% Water		
		90.63	9.38	
Friday, 2023.07.14				
11:00-12:00		111	68	179
	% Beach	% Water		
		62.01	37.99	
12:00-13:00		147	15	162
	% Beach	% Water		
		90.74	9.26	
14:00-15:00		225	14	239
	% Beach	% Water		
		94.14	5.68	
16:00-17:00		123	12	135
	% Beach	% Water		
		91.11	8.89	
Saturday, 2023.07.15				
10:00-11:00		89	26	115
	% Beach	% Water		
		77.39	22.61	
11:00-12:00		180	28	208
	% Beach	% Water		
		86.54	13.46	

Appendix Chapter 2

Cultural Tourism in the Seychelles

Appendix 2.1 Interview guidelines

Operational Questions Legend:

What is the current state of the product diversification strategy [1], cultural tourism [2], and the Créole Rendezvous brand [3]?

What are the drivers [4] and barriers [5] for the local community to participate in cultural tourism?

What does the current stakeholder landscape look like [6] and how can stakeholders coordinate to support cultural tourism [7]?

Context:

1. Could you tell me about the products/activities you offer? [1] [2]
Could you tell me about the products/activities you hope to offer?
2. Is this your primary source of income or a side business? [2]
Will this be your primary source of income or a side business?
3. How many people work in your business? [2]
How many people would you like to have working in your business?
4. How many customers do you have per day/week/month? [2]
5. What percentage of your customers are Seychellois vs foreign tourists? [2] [4] [5]
Do you hope to attract more Seychellois customers or more foreign tourists?
6. From which countries do your customers come from? [2]
7. What age are most of your customers? [2]
8. Can you share some other observations about your customers' demographics or background? [2]
What types of customers do you hope to attract?

Cultural Tourism:

9. In your view, what is cultural tourism and why is it important? [2] [4]
10. What do you understand the role of the Créole Rendezvous to be? [3] [6]
11. Have you heard of the UNESCO culture project? What do you know about it? [2] [6]

Drivers and Barriers:

12. I'd be interested to hear, what motivated you to start your business? [4]
13. Could you describe the process you had to go through to start your business? [4] [5]
14. If you imagine your business in 5 years time, what would it look like? [4]
15. Do you know others who are also [giving dance lessons, making grass hats]? [1] [6]
If yes: Do you have contact with them or interact with them at all? [6]
If yes: In what ways does interacting with other business owners help you? [4] [6]
If no: In what ways do you think interacting with others would be helpful for your business? [4] [7]
16. Could you tell me about the challenges you face as a business owner? [5]
Can you tell me about the challenges you face as you are starting your business?
17. What do you need for your business to grow or become more successful? [5] [7]
18. What programs or policies have helped you run your business? [4] [6]

Conclusion:

19. Is there anything more you would like to add? [1] [2] [3] [4] [5] [6] [7]

Figure 2.1
Interview guidelines for cultural entrepreneurs.

Operational Questions Legend:

What is the current state of the product diversification strategy [1], cultural tourism [2], and the Créole Rendezvous brand [3]?

What are the drivers [4] and barriers [5] for the local community to participate in cultural tourism?

What does the current stakeholder landscape look like [6] and how can stakeholders coordinate to support cultural tourism [7]?

Context:

1. In your view, what is cultural tourism and why is it important? [2] ([4])
2. What do you understand the role of the Créole Rendezvous to be? [3]
3. Have you heard of the UNESCO culture project? What do you know about it? [2] [6]

Role and perceptions:

4. Can you tell me about your “group’s” current role in cultural tourism? ([2]) [6]
5. What factors do you believe motivate Seychellois to run cultural tourism businesses? [4]
6. Which challenges do you believe entrepreneurs in the cultural tourism industry face? [5]
7. I’d be interested to hear, in what ways does your “group” support entrepreneurs in cultural tourism? [6]
8. Can you tell me about the challenges your group faces in supporting entrepreneurs? [5]
9. In what ways could your “group” improve coordination with cultural tourism entrepreneurs? [7]

Conclusions:

10. Is there anything more you would like to add? [1] [2] [3] [4] [5] [6] [7]

Figure 2.2
Interview guidelines for other key stakeholders.

Appendix 2.2 Stakeholder perception of cultural tourism

Table 2.1
Perceived benefits of cultural tourism .

Benefit	Description	n of 22 participants contributing	n of 14 cultural entrepreneurs contributing
Foster appreciation and promotion for culture	Cultural tourism can serve as a means to strike a balance between modernization and preserving the rich heritage of Seychellois culture. Embracing cultural tourism allows the country to showcase its unique way of life, attracting visitors while enabling local communities to appreciate and value their own cultural identity. By keeping traditional practices alive, Seychelles maintains its authenticity, offering tourists an immersive and meaningful experience. Moreover, cultural tourism cultivates cultural awareness among both foreign visitors and young Seychellois, instilling a strong sense of identity and purpose.	9	8
Support the protection of cultural heritage	Cultural tourism in Seychelles can play a role in supporting the protection and preservation of the country's cultural heritage. It can generate revenue, serving as an add-on to the budget for the Department of Culture and safeguards what remains of the nation's heritage for future generations. Through cultural tourism initiatives, old traditions and knowledge can be passed on by elderlies, contributing to living heritage projects.	7	3
Unique selling point	Seychellois Creole culture can be a unique selling point compared to other destinations.	5	1
Support community development and reduce economic leakage	Cultural tourism can contribute to community development, when the benefits stay within the community.	3	2

Table 2.2
Perceived risks of cultural tourism .

Risk	Description	n of 22 participants contributing	n of 14 cultural entrepreneurs contributing
Losing authenticity	<p>Preconceived ideas of what island and Seychellois culture should look like lead to a diversion from the authentic cultural experience. The tension between catering to tourist expectations and preserving authenticity emerges as a significant concern. To ensure the preservation of cultural heritage, it is vital to avoid staging culture solely for tourism purposes. Instead, the focus should be on providing tourists with genuine experiences within the local community, fostering a deeper connection to Seychellois culture and enabling local participation in the tourism industry.</p> <p><i>"We don't have to stage the culture, we have to live it as it is and let tourists experience it."</i></p> <p><i>"We need to achieve a sense of authenticity that is pleasing to the visitor but also brings a sense of pride to the Seychellois."</i></p>	4	3
Culture is disappearing and vulnerable	<p>There is an urgent need to conserve Seychellois culture, which is slowly disappearing and facing immense pressure. The art of dancing for example, is gradually fading away due to neglect from the tourism industry. Despite the need for youth involvement, there is a concerning lack of interest and engagement in learning cultural traditions. Moreover, young people lack adequate opportunities and suitable places to learn and appreciate their cultural practices. Addressing this challenge becomes crucial to preserve heritage for generations to come.</p>	4	2
Overcommercialisation	<p>Developing a brand around cultural heritage demands caution. The culture sector has been put under a lot of pressure particularly since the Covid-19 pandemic, to offer more products and experiences for tourism. While there is a need to adapt and meet the demands of the tourism industry, there is a growing concern that the commercialization of culture is eroding its true essence. Striking the right balance between cultural preservation and commercial viability becomes crucial to address this conflict and ensure that Seychellois culture remains a source of pride and identity for its people.</p>	4	0
Exclusion of local people and their culture in tourism	<p>The development of hotels and tourist infrastructure on culturally rich islands, such as Silhouettes, has led to the displacement of local communities, threatening their traditional way of life. There is a growing concern that tourists are encouraged to remain separate from the local people, hindering cultural exchanges. The current organization of tourism fails to support and promote Seychellois culture, leading to a disconnect between tourism and the preservation of the country's rich history and heritage. Hotels on the beaches are criticized for inhibiting traditional practices like beach BBQs, and the neglect of Creole cuisine and music in establishments further exacerbates the cultural divide.</p>	2	0
Neglecting the trauma in Seychellois Creole culture	<p>Seychellois Creole culture and heritage, often portrayed as vibrant and carefree, carries underlying layers of trauma and poverty that demand delicate handling in cultural tourism development. The culture's joyful facade can mask unresolved historical pain, and it is essential for cultural tourism to acknowledge and respect these realities. It becomes imperative to confront aspects that may trigger shame or laughter in locals, seeking to understand their significance and connection to the collective identity. Cultural tourism must exercise sensitivity and awareness, avoiding the risk of overlooking or exacerbating the trauma, and instead foster pride and empathy by addressing the historical roots and complexities of this rich heritage and embracing its diverse and resilient identity.</p> <p><i>"There is some element of shame. Most Seychellois people will tell you that the traditional dress is a dress coming from Madagascar [...] This dress is associated with poverty, with slaves [...]. So there is a tendency to reject it. People don't realize that everything is symbolic. If we make this our pride, of course it will become something we can be proud of."</i></p>	1	0

Table 2.2
continued

Risk	Description	n of 22 participants contributing	n of 14 cultural entrepreneurs contributing
Falling behind in cultural tourism development	Seychelles faces the challenge of falling behind compared to other destinations in terms of cultural tourism development, possibly due to constraints like limited funding, high operational costs, or slow modernization. To remain competitive, local sectors must be vigilant and learn from the standards of quality, professionalism, and presentation set by other destinations.	1	0
Neglecting stakeholder engagement	A successful cultural tourism strategy requires careful planning and collaboration among stakeholders, avoiding isolated efforts in silos. It demands a concerted, collective endeavour with the support and involvement of all relevant parties. Neglecting to engage stakeholders effectively jeopardizes the prospects of cultural tourism development.	2	0

Appendix 2.3 Motivators and challenges of cultural entrepreneurs

Table 2.3
Motivators of cultural entrepreneurs to pursue a business in cultural tourism .

Motivator	Description	n of 22 participants contributing	n of 14 cultural entrepreneurs contributing
Love and pride for culture and art	Seychellois love their culture and are proud to share it with visitors.	12	8
Keeping culture alive, Preserving heritage	Cultural entrepreneurs want to teach their practices to other locals and keep culture alive. They wish to preserve the heritage left for future generations, so that these generations as well as visitors can learn about the rich history of the island.	10	6
Existing demand from tourists	The entrepreneurs received positive feedback from visitors that expressed that they want to experience the culture of Seychelles. There is economic opportunity for locals in cultural tourism. There is a demand from tourists for authentic cultural experiences, local products like food, drinks and crafts.	9	4
Competitive advantage through authenticity	Authenticity can be the unique selling point of Seychelles and offer an entry point for locals into the tourism industry. It is one of the things that foreigners cannot offer their customers without collaborating with the local community.	4	0
Creating experiences	Cultural entrepreneurs want to create an experience for the visitor.	4	4
Self-realization	The cultural entrepreneurs feel the wish to be self-employed, independent and to create something of their own. They are driven by entrepreneur spirit and the willingness to innovate.	4	4
The new government	Cultural entrepreneurs feel that the new government is finally signaling more support for culture and artists.	4	4
Love for nature	The entrepreneurs are driven by a strong love for the nature of their country and the wish to share that love with visitors.	3	3
Sustainability	Cultural tourism can be environmentally and socially sustainable. The traditional practices and the materials used are oftentimes environmentally friendly. Cultural tourism can contribute to social sustainability when it is implemented in a way that benefits the local community.	3	0
Feeling of appreciation	Being able to share cultural practices with others who appreciate the experience can create motivation and feelings of being valued and appreciated.	2	0

Table 2.3
continued

Motivator	Description	n of 22 participants contributing	n of 14 cultural entrepreneurs contributing
Financial support	The cultural entrepreneurs received a grant which was a motivator for their business.	2	2
First mover advantage	The cultural entrepreneurs are convinced that there is no other entrepreneur yet or very few others with the same business idea. This makes them hopeful that their business will become a success.	2	2
Generating income	The cultural entrepreneurs are motivated by earning (additional) income from cultural tourism.	2	2
Competition	The international and local competition drives the entrepreneur to innovate and think about how to offer cultural tourism.	1	1
Contribute to local society	The entrepreneurs primary aim was to create a place for locals, especially local youth.	1	1
Encouraging feedback from authorities	The entrepreneur received encouragement from different departments, agencies.	1	1
Networking	The networking with other women entrepreneurs from other countries who are doing a similar business helps the entrepreneur to stay motivated and get inspired.	1	1

Table 2.4
Challenges of cultural entrepreneurs to pursue a business in cultural tourism .

Motivator	Description	n of 22 participants contributing	n of 14 cultural entrepreneurs contributing
Financing	Cultural entrepreneurs struggle to finance their businesses. They are searching for investors or sponsors and try to apply for a grant. Taking up a loan is a big challenge. (related to "Creating a business plan")	14	8
Rules and Regulations	Cultural entrepreneurs struggle to create authentic experiences for visitors because of the strict regulations in place. The regulations hinder cultural entrepreneurs from innovating in new directions. The entrepreneurs feel that there is no room for compromise. <i>Health regulations</i> Public health authority blocks projects because they do not comply with strict regulations. It is not for example not possible to serve authentic Seychellois Creole food to visitors that was cooked in a traditional Creole kitchen. <i>Receiving a license</i> Entrepreneurs cannot start their businesses because they do not get the necessary license needed for the realization of their ideas from authorities. Other license holders try to prevent authorities from giving a license to the entrepreneur.	13	7
Disinterest from established tourism industry	Locals are still excluded from a big part of the industry. Established stakeholders have a competitive advantage through their existing network and international support system. Major stakeholders in the tourism industry still market Seychelles without marketing its rich history, people and culture. Tourists are often not encouraged by the established tourism industry to see local culture or community.	10	7
Insufficient, unideal space for culture	There are not enough spaces designated to culture and not enough opportunities for cultural entrepreneurs to showcase their art to visitors. The location of the spaces that exist is unideal. Visitors need for example too much time to get there or the places are not visible enough.	9	8

Table 2.4
continued

Motivator	Description	n of 22 participants contributing	n of 14 cultural entrepreneurs contributing
Foreign competition	Many artifacts are imported but labelled as made in Seychelles. The authenticity of true Seychellois products is not protected enough. The prices of imported goods are undercutting local products.	7	4
Uncertainty	Being an entrepreneur and self-employed comes with great uncertainty. It is not clear when or if the entrepreneur gets support or makes enough income.	7	7
Access to materials, infrastructure and land, operational costs	Infrastructure support for cultural practitioners is lacking. For those doing handicrafts, the availability and price of raw materials is a challenge. Additionally, the operational costs are often higher for the cultural entrepreneurs than they are for foreign competitors.	6	0
Building a local network	People stopped supporting each other and working together. People are divided by politics. Building a network is challenging and needs time.	5	5
Various stakeholders lack knowledge on Seychellois Creole culture	Various relevant stakeholders not only the entrepreneurs are under-informed about Seychellois Creole Culture and lack the necessary attention to detail when commercializing authenticity. They need to be educated and trained on culture. Through marketing unauthentic culture as authentic, false concepts of culture can be strengthened and reinforced. This can weaken the competitive advantage of entrepreneurs who want to promote truly authentic cultural practices and can contribute to the dilution and disappearance of authentic local cultural practices.	5	0
Fear of being copied	Cultural entrepreneurs fear that their business and what makes them unique will be copied by others. As a result, they hesitate to start their business in the first place and rather wait until they have more resources to compete against potential copy-cats.	4	4
Time	Especially cultural entrepreneurs who have another job struggle to find time for the cultural tourism offer. They cannot commit fully because they lack the resources. Cultural entrepreneurs struggle to deliver on time because the product needs much time to produce, and the entrepreneur is overwhelmed.	4	4
Under-pricing	Cultural entrepreneurs are not or are insufficiently compensated when they showcase their practices in hotels or when they visit a cultural event. They might not visit an event like a Creole Rendezvous bazaar because the revenue made by selling their products does not compensate for the costs of participating.	3	3
Access to training and support	Cultural entrepreneurs need training and support. Especially, the elderly who have knowledge of authentic cultural practices might need support. Support for a few selected entrepreneurs. Those who aren't doing very well feel underappreciated and do not have visibility like those who have built a name for themselves	3	0
Contradicting authorities	Some of the authorities encourage the cultural entrepreneur while other authorities prevent their business ideas from being realized.	3	3
Creating a business plan	It is challenging to write a business plan. Entrepreneur needed help from friends or struggles to get funding because he or she is lacking a finished business plan.	3	3
High level decision making	Due to the strict regulations, decisions about "exceptions" must be made at a very high level. This process takes a lot of time and comes with a lot of uncertainty. The entrepreneur needed to find their own way to realize their business. There was no policy or support applicable to their idea.	3	3

Table 2.4
continued

Motivator	Description	n of 22 participants contributing	n of 14 cultural entrepreneurs contributing
Lack of support from Tourism Department	Cultural entrepreneurs feel that Tourism Department is not stimulating the existing tourism industry enough to change their behaviour and support local businesses more.	3	3
Pricing	Setting the right price can pose a challenge. Especially, when the activity should remain affordable for locals as well.	3	2
Transport costs	Participating in events around the island comes with transportation costs. The entrepreneur is hesitant to participate in events because the revenue does not always cover the costs.	2	2
False concepts of culture in tourism	Tourism forces certain concepts on the local people. For example the concept of paradise. These concepts of culture held by visitors and stakeholders marketing culture can divert from reality. This leads to preconceived ideas of what culture should look like and can put pressure on entrepreneurs to change their practices. Entrepreneurs can be discouraged and feel underappreciated. It leads to a lack of authenticity	2	0
Innovation, diversification, coordination	Copyright issues, not wanting to share, very careful to who they showcase their product. Practitioners lack the motivation or initiative to innovate and diversify. Oftentimes cultural entrepreneurs tend to be competitive and possessive. There is a lack of unity and coordination, a fear of being copied and a tendency to copy. There is a lack of copyright laws that protect cultural entrepreneurs' ideas.	2	0
Reaching customers	Despite promoting cultural activities at multiple communication outlets, there is a lack of tourists coming to cultural events. Reaching customers and promoting the activity to the right target group so that the expectations of visitors match what is offered.	2	0
Training participation	Participation in training offered is low. Often, entrepreneurs, are self-employed and sparing time for training might not be an option due to financial reasons.	2	0
Receiving information on grant opportunities	The cultural entrepreneur learned about grant opportunities too late and felt disadvantaged in accessing the information.	1	1
Discrimination	Competitors did not have to follow the same rules because they had connections in the community that allowed them not to comply with regulations where as the entrepreneur had to comply with regulations to be allowed to do business. The entrepreneur felt disadvantages through uneven enforcement of rules and regulations.	1	1
Keeping culture alive	It is hard to find young people who show interest in learning from the cultural entrepreneur. The entrepreneur feels overwhelmed and unable to pass on or share the business with someone younger.	1	1
Nonexciting training on culture	There is a lack of cultural training for tour guides. The training now focuses mainly on the environment. The entrepreneurs have to do their own research.	1	1
Language barrier of tourists	It is hard to communicate with tourists that do not speak English well.	1	1
Health of cultural practitioners	Elderly people might have health issues and might not be available to run a recurring activity.	1	0
Lacking support system and policy	A clear, shared support strategize for cultural tourism is lacking.	1	0
Sustainability	Cultural tourism can be environmentally and socially sustainable. The traditional practices and the materials used are oftentimes environmentally friendly. Cultural tourism can contribute to social sustainability when it is implemented in a way that benefits the local community.	3	0

Appendix 2.4 Stakeholder List

Table 2.5
Overview of identified stakeholders in cultural tourism entrepreneurship.

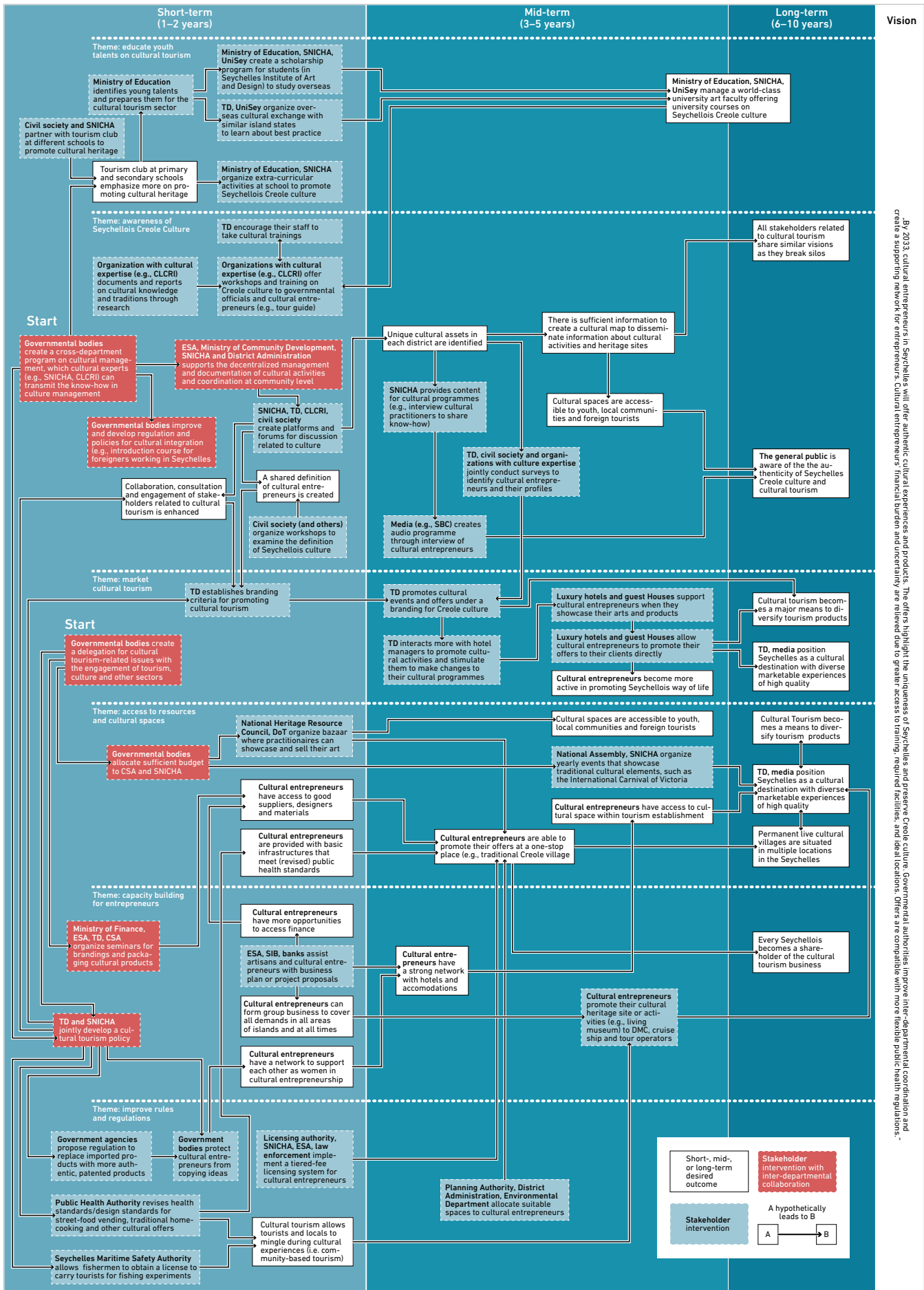
Stakeholder	Sector	Description
Tourism Department	Government	Falls under the Seychelles Ministry of Foreign Affairs and Tourism, and is mandated to encourage the development of the tourism industry in Seychelles. (https://tourism.gov.sc)
Public Health Authority	Government	Falls under the Seychelles Ministry of Health, and is responsible for disease prevention and control. (http://www.health.gov.sc/index.php/about-us/)
Seychelles Licensing Authority	Government	Falls under the Seychelles Ministry of Finance, National Planning and Trade, and is mandated to create an enabling environment for sustainable business development in Seychelles. (https://www.sla.gov.sc/about-us/)
Department of Land Transport	Government	Falls under the Seychelles Ministry of Transport, and is mandated to enhance mobility, deliver safe, secure transportation and road networks. (https://transport.gov.sc/who-we-are/land-transport/departement-of-land-transport)
Planning Authority	Government	Prepares land use development plans to create an enabling environment for sustainable physical development in Seychelles. (http://www.spa.gov.sc/about-us/our-vision-mission-objectives)
Ministry of Agriculture, Climate Change and Environment	Government	Ensures the constitutional right of every person to live in and enjoy a clean, healthy and ecologically balanced environment. (https://macce.gov.sc/)
Ministry of Education	Government	Ensures that the national education sector is effectively developed and grows progressively in line with local and global dynamics. (https://edu.gov.sc/)
District Administration	Government	Strengthen community services and promote citizen-led local governance. 26 districts are located on the island of Mahé, two on Praslin, one on La Digue, and one for the outer islands.
Enterprise Seychelles Agency	Government	Implements the policies and strategies of the government relating to micro, small and medium enterprises and provides them with the necessary services and support. (https://esa.egov.sc/ESASeedCapital/Home/About)
Seychelles Investment Board	Government	Promotes and facilitates local and foreign investments within the Seychelles. (https://investinseychelles.com/about/about-sib)
Seychelles National Institute for Culture, Heritage and the Arts	Government	Responsible for the preservation, protection, promotion and appreciation of the Seychellois cultural heritage.
National Heritage Resource Council	Government	A council within the National Institute for Culture, Heritage and the Arts. Show leadership in the regeneration of the cultural heritage assets of Seychelles through partnerships with individuals and organizations.
Creative Seychelles Agency	Government	An agency within the National Institute for Culture, Heritage and the Arts. Promotes the arts both nationally and internationally, and creates creative business opportunities for Seychellois.
Seychelles Bureau of Standards	Government	Provides standardization and conformity assessment services to facilitate trade and industry.

Table 2.5
continued

Stakeholder	Sector	Description
Commercial Register of Seychelles	Government	Indexes registered businesses in the Seychelles.
Cultural Entrepreneurs	Business	Seychellois small-business owners who offer culture-related products and activities such as creole cuisine, local tours, crafts, fishing experiences, and traditional performing arts.
Commercial Banks	Business	Offer services to Seychellois individuals and companies.
Self-Catering and Guest Houses	Business	Include smaller accommodations with few amenities which cater to lower-spending visitors.
Destination Management Companies	Business	Use local expertise to organize visitor experiences, offering services for accommodation, transportation and activities. Major destination management companies in the Seychelles include Mason's Travel, 7South, and Creole Travel Services.
Restaurants and Bars	Business	Catering establishments which offer a variety of cuisines to tourists and locals.
Charter Boats	Business	Provide excursions for groups on vacation or business.
Creole Language and Culture Research Institute	Academic	At the University of Seychelles to stimulate, facilitate and lead research in Creole studies in the country, with particular attention to the Seychellois Creole language and culture. (https://unisey.ac.sc/clcri/)
University of Seychelles	Academic	The primary institution of higher education in the Seychelles, with faculties of art and social development, and business and sustainable development.
Seychelles Tourism Academy	Academic	Provides training for careers in hotels, airports, restaurants, cruise ships, travel agencies, etc.
Co-operative des Artisans	Civil Society	A cooperative of approximately one hundred members which helps to preserve cultural heritage and skills and promotes a variety of good quality, locally made crafts for Seychellois and tourists.
Fisherman Association	Civil Society	Represents the interests of fishermen to government and facilitates access to equipment and clients.
Journalists and Media	Civil Society	Include national and international reporting agencies
Tourists	Civil Society	Visitors to the Seychelles travelling for business or leisure.
Tour guide network	Civil Society	A professional network of female tour guides from various tourist destinations in the Indian Ocean.
Local Community	Civil Society	Seychellois citizens and residents who interact and live in a common location.
People Experience Growth	Non Governmental Organization	Dedicated to growing, promoting and establishing the authentic Seychellois experience within the tourism and hospitality industry. It provides holistic transformation of the Seychellois people by offering training, empowerment, and exposure to life-changing innovation and experience. (https://peg.today/)
Seychelles Sustainable Tourism Foundation	Non Governmental Organization	Seeks to make Seychelles an international best practice example for sustainable tourism through an integrated collaborative approach between public, private sector, academia and NGOs.
UNESCO regional office	Non Governmental Organization	Recognizes and seeks to preserve the intangible cultural heritage of the Seychelles.

Appendix 2.5 Intervention diagrams

Figure 2.3
Intervention diagrams (see next side).



Appendix 2.6 Stakeholder Coordination ideas

Table 2.6

Stakeholder coordination ideas (Green: Added to the diagram, Blue: Merged, Red: Deleted (Explanation in text)).

Id	Theme	Change/ Intervention	Original Description	Final Description in diagram	Contribution from
1	Access to resource and ideal locations	Goal	SNICHA manages a permanent live cultural village(s)	Permanent live cultural villages are situated in multiple locations in Seychelles	Workshop participants
2	Capacity-building for entrepreneurs	Goal	Every Seychellois becomes a shareholder of the cultural tourism business	Every Seychellois becomes a shareholder of the cultural tourism business	Workshop participants
3	Access to resource and ideal locations	Goal	Cultural Entrepreneurs have access to good suppliers, designers and materials	Cultural Entrepreneurs have access to good suppliers, designers and materials	Workshop participants
4	Access to resource and ideal locations	Intervention	Ministry of Finance provides better access to finance	Cultural Entrepreneurs have more opportunities to access finance	Workshop participants
5	Access to resource and ideal locations	Goal	Cultural Entrepreneurs have access to cultural space within tourism establishment	Cultural Entrepreneurs have access to cultural space within tourism establishment	Workshop participants
6	Improve Rules and Regulation	Intervention	Planning Authority, District Administration, Environmental Department allocate suitable spaces to cultural entrepreneurs	Planning Authority, District Administration, Environmental Department allocate suitable spaces to cultural entrepreneurs	Workshop participants
7	Access to resource and ideal locations	Intervention	National Heritage Resource Council/DoT organize bazaar where practitioners can showcase and sell their art	National Heritage Resource Council/DoT organize bazaar where practitioners can showcase and sell their art	CTst37, CTe3
8	Access to resource and ideal locations	Goal	General/Artisans association supply infrastructures to cultural practitioners	Cultural Entrepreneurs are provided with basic infrastructures that meet (revised) public health standards	CTst37, CTe3
9	Access to resource and ideal locations	Goal	Governmental agencies and schools create more spaces for youth to meet and also experience culture. Needs a collaboration between places who welcome youth and want to have cool cultural events for locals and tourists alike	Cultural spaces are accessible to youth, local communities and foreign tourists	CTeD23
10	Market Cultural Tourism	Intervention	Luxury Hotel and Accommodation supports artists when they showcase their art	Luxury Hotel and Accommodation supports artists when they showcase their art	CTeP16
11	Market Cultural Tourism	Goal	Cultural entrepreneurs promote their offers at a one-stop place (e.g., Traditional Creole Village)	Cultural entrepreneurs are able to promote their offers at a one-stop place (e.g., Traditional Creole Village)	CTeP16
12	Awareness of Seychellois Creole Culture	Intervention	support the decentralization of cultural activities	Merged with 17	Workshop participants
13	Awareness of Seychellois Creole Culture	Goal	Government agencies and other partners enhance collaboration among stakeholders related to cultural tourism	Collaboration, consultation and engagement of stakeholders related to cultural tourism is enhanced	Workshop participants
14	Awareness of Seychellois Creole Culture	Goal	Improve stakeholder engagement and consultation	Merged with 13	Workshop participants

Table 2.6
continued

Id	Theme	Change/ Intervention	Original Description	Final Description in diagram	Contribution from
15	Awareness of Seychellois Creole Culture	Intervention	MoT, CLCRI, and Civil Society organize meetings for knowledge exchange and further collaboration	Merged with 22	CTst38
16	Improve Rules and Regulation	Goal	Cultural tourism allows tourists and locals to mingle during cultural experiences (e.g., during a tour)	Cultural tourism allows tourists and locals to mingle during cultural experiences (i.e. community-based tourism)	CTeD24
17	Awareness of Seychellois Creole Culture	Intervention	ESA, Community Development, SNICHA and District Administration supports coordination at a community level; decentralized management of cultural activities	ESA, Ministry of Community Development, SNICHA and District Administration supports the decentralized management and documentation of cultural activities and coordination at a community level	CTst40
18	Awareness of Seychellois Creole Culture	Goal	General public is aware of the authenticity of Seychelles creole culture	General public is aware of the authenticity of Seychelles creole culture	Workshop participants
19	Awareness of Seychellois Creole Culture	Goal	create a cultural map to disseminate information about cultural heritage sites	There is sufficient information to create a cultural map to disseminate information about cultural activities and heritage sites	Workshop participants
20	Awareness of Seychellois Creole Culture	Intervention	SNICHA provides content for cultural programmes (e.g. interview cultural practitioners to share know-how)	SNICHA provides content for cultural programmes (e.g., interview cultural practitioners to share know-how)	Workshop participants
21	Awareness of Seychellois Creole Culture	Goal	District Administration, SNICHA, media identify unique cultural assets in each district	Unique cultural assets in each district are identified	Workshop participants
22	Awareness of Seychellois Creole Culture	Goal	DoT, Planning Authority, SNICHA, District Administration, CLCRI, and Civil Society Create platforms and forums for discussion related to culture	DoT, Planning Authority, SNICHA, District Administration, CLCRI, and Civil Society have platforms and forums for regular discussion related to culture	Workshop participants
23	Awareness of Seychellois Creole Culture	Intervention	DoT/UniSey organizes cultural exchange with similar island states to learn about best practices	DoT/UniSey organizes overseas cultural exchange with similar island states to learn about best practices	Workshop participants
24	Awareness of Seychellois Creole Culture	Intervention	CLCRI offers workshops and training on Creole Culture to governmental officials and cultural entrepreneurs (e.g. tour guide)	Organizations with cultural expertise (e.g., CLCRI) offer workshops and training on Creole Culture to governmental officials and cultural entrepreneurs (e.g., tour guide)	CTst36, CTeD24, CTeP16
25	Awareness of Seychellois Creole Culture	Intervention	CLCRI documents and reports on cultural knowledge and traditions through research	Organization with cultural expertise (e.g., CLCRI) documents and reports on cultural knowledge and traditions through research	CTst36
26	Awareness of Seychellois Creole Culture	Intervention	DoT encourages their staff to take cultural trainings	DoT encourages their staff to take cultural trainings	CTst36

Table 2.6
continued

Id	Theme	Change/ Intervention	Original Description	Final Description in diagram	Contribution from
27	Awareness of Seychellois Creole Culture	Intervention	Media (e.g., SBC) creates audio programme through interview of cultural entrepreneurs	Media (e.g., SBC) creates audio programme through interview of cultural entrepreneurs	Workshop participants
28	Awareness of Seychellois Creole Culture	Intervention	Civil society (and others) organize workshops with professionals to examine the definition of Seychellois culture	Civil society (and others) organize workshops to examine the definition of Seychellois culture	Workshop participants
29	Awareness of Seychellois Creole Culture	Intervention	DoT, civil society and entrepreneurs conduct collaborative surveys with professionals to classify cultural entrepreneurs/practitioners and identify their strengths	DoT, civil society and organizations with culture expertise jointly conduct surveys to identify cultural entrepreneurs and their profiles	Workshop participants
30	Awareness of Seychellois Creole Culture	Goal	Definition of cultural entrepreneurs is created	Definition of cultural entrepreneurs is created	Workshop participants
31	Educate young talents on cultural tourism	Intervention	Ministry of Education, SNICHA organize extra-curricular activities at school to maintain cultural authenticity	Ministry of Education, SNICHA organize extra-curricular activities at school to promote Seychellois Creole culture	Workshop participants
32	Educate young talents on cultural tourism	Intervention	Ministry of Education, SNICHA, UniSey create a scholarship program for students (in Seychelles Institute of Art and Design) to study overseas	Ministry of Education, SNICHA, UniSey create a scholarship program for students (in Seychelles Institute of Art and Design) to study overseas	Workshop participants
33	Educate young talents on cultural tourism	Goal	Ministry of Education, SNICHA, UniSey manage a university faculty...	UniSey has a world-class university Art faculty offering university courses on Seychellois Creole culture	Workshop participants
34	Educate young talents on cultural tourism	Intervention	Ministry of Education identifies young talents and develop training program to prepare them for the tourism sector	Ministry of Education identifies young talents and prepare them for the cultural tourism sector	CTe6
35	Educate young talents on cultural tourism	Goal	Tourism club at primary and secondary schools emphasise more on promoting cultural heritage	Tourism club at primary and secondary schools emphasize more on promoting cultural heritage	Workshop participants
36	Educate young talents on cultural tourism	Intervention	DoT, SNICHA disseminate and protect cultural heritage	Too general; SNICHA is already doing it	Workshop participants
37	Educate young talents on cultural tourism	Intervention	Civil society and SNICHA partners with tourism club at different schools...	Civil society and SNICHA partner with tourism club at different schools to promote cultural heritage	Workshop participants
38	Capacity-building for entrepreneurs	Intervention	Ministry of Finance, ESA, DoT, CSA organize seminars for branding and packaging cultural products	Ministry of Finance, ESA, DoT, CSA organize seminars for branding and packaging cultural products	Workshop participants
39	Capacity-building for entrepreneurs	Intervention	ESA, SIB, banks assist artisans and cultural entrepreneurs with business plan or project proposals	ESA, SIB, banks assist artisans and cultural entrepreneurs with business plan or project proposals	Workshop participants

Table 2.6
continued

Id	Theme	Change/ Intervention	Original Description	Final Description in diagram	Contribution from
40	Capacity-building for entrepreneurs	Goal	Cultural entrepreneurs form group business to cover all demands in all areas of islands and at all times;	Cultural entrepreneurs are able to form group business to cover all demands in all areas of islands and at all times;	CTe5
41	Capacity-building for entrepreneurs	Goal	Cultural entrepreneurs have a network to support each other as women in cultural entrepreneurship	Cultural entrepreneurs have a network to support each other as women in cultural entrepreneurship	CTeD24
42	Capacity-building for entrepreneurs	Goal	Cultural entrepreneurs create a strong network with hotels and accommodations	Cultural entrepreneurs have a strong network with hotels and accommodations	CTeP18
43	Cross-department Collaboration	Intervention	Governmental agencies create a cross-department program on cultural management, which the National Heritage Resource Council can transmit the know-how in culture management	Governmental agencies create a cross-department program on cultural management, which the National Heritage Resource Council can transmit the know-how in culture management	CTst37
44	Cross-department Collaboration	Intervention	Governmental agencies create a delegation for cultural tourism-related issues with the consultation of tourism, culture and other sectors	Government Bodies create a delegation for cultural tourism-related issues with the engagement of tourism, culture and other sectors	CTst40
45	Market Cultural Tourism	Intervention	DoT, media position Seychelles as a cultural destination with diverse marketable experiences of high quality	DoT, media position Seychelles as a cultural destination with diverse marketable experiences of high quality	Workshop participants
46	Market Cultural Tourism	Goal	cultural tourism becomes a means to diversify tourism products	cultural tourism becomes a means to diversify tourism products	Workshop participants
47	Market Cultural Tourism	Goal	All stakeholders related to cultural tourism share the same vision as they break silos	All stakeholders related to cultural tourism share the same vision as they break silos	Workshop participants
48	Market Cultural Tourism	Intervention	National Assembly, SNICHA re-organize the International Carnival of Victoria (featuring traditional cultural elements)	National Assembly, SNICHA re-organize the International Carnival of Victoria (featuring traditional cultural elements)	Workshop participants
49	Market Cultural Tourism	Intervention	DoT creates more campaigns on Creole Rendezvous	Merged with 55	Workshop participants
50	Market Cultural Tourism	Intervention	DoT interacts more with hotel managers to promote cultural activities and stimulate them to make changes to their cultural programs. Possible format: workshop	DoT interacts more with hotel managers to promote cultural activities and stimulate them to make changes to their cultural programs	CTe5, CTeP14, CTeP15

Table 2.6
continued

Id	Theme	Change/ Intervention	Original Description	Final Description in diagram	Contribution from
51	Market Cultural Tourism	Goal	Cultural entrepreneurs become more active in promoting Seychellois way of life, potentially with a strategy	Cultural entrepreneurs become more active in promoting Seychellois way of life	Ctst38, CTe5
52	Market Cultural Tourism	Goal	Cultural entrepreneurs collaborate with each other and integrate cultural elements like food, art, dance, crafts and music in current guided tour experiences	Merged with 40	CTeD24, CTeP18, CTeD23
53	Market Cultural Tourism	Goal	Cultural entrepreneurs promote their cultural heritage site or activities (e.g., living museum) to DMC, cruise ship and tour operators	Cultural entrepreneurs promote their cultural heritage site or activities (e.g. living museum) to DMC, cruise ship and tour operators	CTeP18
54	Market Cultural Tourism	Intervention	Luxury Hotel and Accommodation allow cultural entrepreneurs to promote their offers to their clients directly	Luxury Hotel and Accommodation allow cultural entrepreneurs to promote their offers to their clients directly	CTeP18, CTeP14, CTeP15
55	Improve Rules and Regulation	Intervention	DoT promote cultural events and offers under a branding for Creole culture	DoT promote cultural events and offers under a branding for Creole culture	CTeD23
56	Improve Rules and Regulation	Intervention	Tourism is not influenced by changing political agenda	Reason: Unsure where to include in the diagram	Workshop participants
57	Improve Rules and Regulation	Intervention	National Assembly, SNICHA include culture as a pillar of the national development strategy	Reason: Already done	Workshop participants
58	Improve Rules and Regulation	Intervention	Public Health Authority reviews public health regulations	Public Health Authority revises health standards/design standards for street food vending, traditional home cooking, and other cultural offers	Workshop participants
59	Improve Rules and Regulation	Intervention	Government agencies increase the budget for CSA and SNICHA	Government agencies increase the budget for CSA and SNICHA	Workshop participants
60	Improve Rules and Regulation	Intervention	Licensing authority, SNICHA, ESA, law enforcement provide a licensing for artisans with a tiered-fee system	Licensing authority, SNICHA, ESA, law enforcement provide a licensing for artisans with a tiered-fee system	Workshop participants
61	Improve Rules and Regulation	Intervention	Government agencies propose regulation to replace imported products with more authentic, patented products	Government Bodies propose regulation to replace imported products with more authentic, patented products	Workshop participants
62	Improve Rules and Regulation	Intervention	Government agencies improve and develop regulation and policies for cultural integration (e.g., introduction course for foreigners working in Seychelles)	Government Bodies improve and develop regulation and policies for cultural integration (e.g., introduction course for foreigners working in Seychelles)	Workshop participants

Table 2.6
continued

Id	Theme	Change/ Intervention	Original Description	Final Description in diagram	Contribution from
63	Improve Rules and Regulation	Intervention	Public Health Authority revises health standards and see how standards are applicable to street food vendors (to promote local street food providers)	Merged with 58	CTst37
64	Improve Rules and Regulation	Intervention	Seychelles Maritime Safety Authority allows fishermen to obtain a license to carry tourists for fishing experiences	Seychelles Maritime Safety Authority allows fishermen to obtain a license to carry tourists for fishing experiences	CTe6
65	Improve Rules and Regulation	Intervention	Governmental agencies protect cultural entrepreneurs from copying ideas	Governmental agencies protect cultural entrepreneurs from copying ideas	CTeD24
66	Improve Rules and Regulation	Intervention	Public Health Authority designs health policy or regulation for private home cooking	Merged with 58	CTeP14
67	Improve Rules and Regulation	Intervention	Governmental agencies implement regulations to allow camping and other traditional experiences	Merged with 58	CTeP14
68	Cross-department Collaboration	Intervention	MoT, SNICHA jointly develops a cultural tourism policy	DoT, SNICHA jointly develops a cultural tourism policy	Workshop participants
69	Market Cultural Tourism	Intervention	Establish Branding criteria for promoting Cultural Tourism	Establish Branding criteria for promoting Cultural Tourism	Workshop participants

Appendix Chapter 3

Agri-Tourism in the Seychelles

Appendix 3.1 Expert interviews (Agricultural Department, Tourism Department, Environmental Department)

Start

Greetings/Thank you for allowing me/us to conduct an interview with you.

Introduce ourselves:

We are [names]. Our team is exploring the potential of agri-tourism in Seychelles. We are interested to get to know your perception of agri-tourism. We would like to find out how agri-tourism in Seychelles could look like and what is needed for its implementation. Therefore, we would like to interview you.

For the interview we would ask you several questions. There are no right or wrong answers to these questions, our aim is to understand your perspective of the topic. You are free to skip any of the questions, if you do not feel comfortable answering it.

We prepared a consent form which has to be signed before we start with the interview.

As you read in the consent form, we would like to record the conversation. This is just for transcription and will be deleted afterwards. You can stop the interview at any time, and if you want to exclude parts of the conversation from the analysis, please let me know. Confidentiality: what is written cannot be traced back (anonymous). Please let us know during the interview, if we need to be careful with certain information.

Do you have any questions? Otherwise, I will start the recording.

1. General

1.1 What is your role in the department?

1.2 What connections do you have to agri-tourism in your position at the department?

1.3 From your description, I understand that you define agri-tourism as... have I understood that correctly? Or how do you define agri-tourism?

If there is no clear idea of agri-tourism or it differs significantly from our idea → give definition to make sure we are talking about the same thing.

1.4 Has your department already dealt with the issue of agri-tourism?

If yes: In what way? How did you decide to proceed? Is it a priority topic for you or not? How can the department support the implementation of agri-tourism?

If not: Why not? Could you imagine pushing the issue more or do you think it's not important enough? How could your department support the implementation?

2. Country-level

2.1 Agri-tourism can have benefits but also downsides. What benefits do you see in implementing agri-tourism on the Seychelles? What downsides?

Is there something that must be taken into account during implementation? For example, in order to use the advantages and minimize the disadvantages?

2.2 In your opinion, how big is the potential of agri-tourism in Seychelles?

Is it a worthwhile option for farmers to earn more income? How does it affect the agricultural sector? Is this a worthwhile diversification strategy for the country in terms of "high value low impact" tourism or not? Are there limitations and if so, where?

2.3 What is currently hampering the development of agri-tourism in Seychelles? What is lacking in implementation?

3. On-farm level

3.1 Do you know of any existing agri-tourism offers in the Seychelles? Which ones? How well are they known? Is demand high or do they struggle to have enough customers?

3.2 Which agri-tourism offers do you think could be implemented in the Seychelles? What are traditional/unique agricultural products/techniques in Seychelles? Are there any typical dishes made from local ingredients? What kind of agri-tourism offer could be made out of it?

3.3 Do you think farmers are interested in agri-tourism?

If yes: Why? What advantages could they gain from it? Has there already been an exchange between the department and farmers regarding agri-tourism? For example, have you already been contacted by interested farmers? What hurdles do they face?

If no: Why not?

3.4 Is agri-tourism easy to implement with the current legislation and policies in place or not? Are there regulatory hurdles that should be removed? Are there political instruments that are needed to promote the topic?

4. Department-specific questions

To the Environmental Department:

4.1 How big do you see the impact of agri-tourism on the environment?

4.2 Do you think agri-tourism is a good option for diversifying tourism from an environmental perspective?

To the Agricultural Department:

4.3 Do you think accommodation on farms could be a future possibility?

4.4 From an agricultural perspective, what do you think are important aspects that must be considered?

To the Tourism Department:

4.4 How should agri-tourism be promoted/presented for/to the tourists?

4.5 Do you think accommodation on farms could be a future possibility?

End

Thank you very much for the enlightening conversation! This certainly brings us a lot further in our work. Are you interested in it when it is ready? We would be happy to send you the final report which is expected to be launched at the end of 2023.

Also, we are organising a workshop and would love to have you there! We invite various stakeholders in the field of agri-tourism and want to promote dialogue between them. For example, we will discuss how the identified barriers in agri-tourism could be reduced and how the cooperation between the stakeholders could be improved.

Further explain content, participants, date

Appendix 3.2 Farmer interviews

Start

Greetings/Thank you for allowing me to conduct an interview with you.

Introduce ourselves: We are [names]. Our team is exploring the potential of agri-tourism in Seychelles. We are interested to get to know your perception and experiences of agri-tourism. We would like to find out how agri-tourism in Seychelles could look like and what is needed for its implementation. Therefore, we would like to interview you.

For the interview we would ask you several questions. There are no right or wrong answers to these questions, our aim is to understand your perspective on the topic. You are free to skip any of the questions, if you do not feel comfortable answering it.

We prepared a consent form which has to be signed before we start with the interview.

As you read in the consent form, we would like to record the conversation. This is just for transcription and will be deleted afterwards. You can stop the interview at any time, and if you want to exclude parts of the conversation from the analysis, please let me know. Confidentiality: what is written cannot be traced back (anonymous). Please let us know during the interview, if we need to be careful with certain information.

Do you have any questions? Otherwise, I will start the recording.

Scheduled farm visit

Introduce ourselves and the project once again and what the purpose of the visit is.

Spontaneous farm visit

Introduce ourselves and the project and the purpose of the visit/interview and ask whether they are open to be part of the project and show us their farm.

1. Entry into the interview and the topic of agri-tourism

1.1 What are you cultivating on your farm?

1.2 Have you ever heard of agri-tourism? How would you describe agri-tourism and what does it include? *If there is no clear idea of agri-tourism or it differs significantly from our idea → give definition to make sure we are talking about the same thing.*

1.3 Are you doing some sort of agri-tourism?

If yes: follow interview guideline A.

If no: Could you imagine offering agri-tourism activities on your farm?

If yes: follow guideline B.

If no: follow guideline C.

A: FARMERS ALREADY DOING SOME SORT OF AGRI-TOURISM

2. Current status of agri-tourism at the farm

2.1 What agri-tourism offer do you provide on your farm? *How many visitors do you have? Do you like offering it?*

2.2 How did you get into offering agri-tourism activities? *How did you get the idea? When was this? Why did you start doing agri-tourism? Is it because of the exchange with the tourists? Is it the financial aspect? Or something else?*

2.3 What benefits do you see for your farm? *In your opinion what is the most beneficial part of agri-tourism? What are positive aspects of agri-tourism? Is it worth it for you, financially? Do you see it as an additional income or is it rather your main income? Are there potential benefits that you do not yet see, but that you expect in the future?*

2.4 How do you do marketing for your agri-tourism offer? *Is it easy to get visitors or is it rather hard and a lot of effort to get tourists interested in visiting your farm? Are there any networks to promote agri-tourism? Would you like to get support in promoting your offer? What support? By whom?*

3. Further development of the offer

- 3.1 Would you like to enlarge your agri-tourism offer? *What additional activities would you like to offer? Do you already have a concrete plan on how you want to achieve this, or is it more of a vague vision?*
- 3.2 What challenges do you see in enlarging your offer? *What is hindering you from doing it at the moment?*
- 3.3 What do you need to implement the growth? *Do you need financial resources? Or institutional support? For example, how could the Tourism Department support you?*
- 3.4 Are there any crops you used to produce but do not do anymore because of lack of market or low sales? *Do you see a possibility to grow this crop again and develop an agri-tourism offer?*

B: FARMERS CONSIDERING TO OFFER SOME SORT OF AGRI-TOURISM

2. Current status and ideas for agri-tourism on the farm

- 2.1 You said you could imagine offering some kind of agri-tourism on your farm. Do you already have an idea what?
If yes: What would it be? How far is your idea developed? Have you already seriously considered offering this agri-tourism activity to tourists and perhaps even taken the first steps towards doing so?
If no: Can you think of traditional dishes, cultivated plants, held animals or agricultural techniques that could be interesting for the development of a tourist offer? What do you think could be offered? Are there any crops you used to produce but do not do anymore because of lack of market or low sales? Is there an opportunity to promote this with agri-tourism?

- 2.2 Why are you considering offering agri-tourism activities on your farm? *What benefits for yourself do you see in doing agri-tourism? Are you hoping to have an additional income? Would you like to exchange with tourists? Is it something else?*

- 2.3 Why are you not yet offering some sort of agri-tourism? *What challenges do you see in doing so? Why did you not realise your idea in the end? What is hindering you from doing agri-tourism? What are the barriers?*

3. Further development of the offer

- 3.1 What would help you to realise your idea(s)? *What support would you like to have for the implementation of such a project? From whom do you wish this support? Do you need financial resources? Or institutional support? For example, how could the Tourism Department support you?*
- 3.2 How would you market your offer? *Do you think it is difficult to attract tourists for this offer? Why? Why not?*

C: FARMERS NOT CONSIDERING TO OFFER SOME SORT OF AGRI-TOURISM

2. No agri-tourism offer on the farm

- 2.1 You said you could not imagine offering some sort of agri-tourism on your farm. What are the reasons? *Why do you think agri-tourism does not fit for your farm? Or are you generally against it? If yes, why?*

- 2.2 What are your biggest concerns around agri-tourism?

- 2.3 What are the difficulties you see for farmers doing agri-tourism? *Do you only see difficulties or also potential benefits? Which ones? Why do you think the difficulties are greater?*

3. Overcoming the difficulties

- 3.1 You mentioned ... and ... as difficulties. How could these difficulties be overcome?
- 3.2 What kind of support is needed? *Do you think financial resources are needed? Or institutional support? For example, how could the Tourism Department support?*

GENERAL QUESTIONS ADDRESSED TO ALL AGAIN (A, B and C)

4. Agri-tourism on the Seychelles

- 4.1 How do you envision agri-tourism in Seychelles in the future? *Would you like to see more of it? How big do you think the potential of agri-tourism is in Seychelles? Do you think it's a worthwhile option for farmers to earn more income? Is it a good idea to diversify tourism through agri-tourism? What benefits do you see in implementing agri-tourism on the Seychelles? What downsides?*

- 4.2 Do you have ideas on what new agri-tourism offers could be implemented in Seychelles?
Do you know any traditional agricultural techniques or Seychellois dishes that could be interesting agri-tourism offers? What are traditional dishes, crops, animals, agricultural techniques that could be interesting for tourists?

End

Thank you very much for the enlightening conversation! Is there anything you would like to add that we haven't talked about yet?

Again, thank you very much. This certainly brings us a lot further in our work. Are you interested in it when it is ready? We would be happy to send you the final report which is expected to be launched at the end of 2023.

Also, we are organising a workshop and would love to have you there! We invite various stakeholders in the field of agri-tourism and want to promote dialogue between them. For example, we will discuss how the identified barriers in agri-tourism could be reduced and how the cooperation between the stakeholders could be improved.

Appendix 3.4 R analysis of tourist survey

Figure 3.2
R analysis of tourist survey results.

```
# Calculate the mean interest levels for each activity and graph for locals
setwd("~/ETH/FS2023/Seychelles/Agritourism")
agridata <- read.csv("agridata.csv")
mean_direct <- mean(agridata$direct_cons, na.rm=TRUE)
mean_agri_educ <- mean(agridata$agri_educ, na.rm=TRUE)
mean_recreation <- mean(agridata$recreation, na.rm=TRUE)
mean_accom <- mean(agridata$accom, na.rm=TRUE)
mean_hands_on <- mean(agridata$hands_on, na.rm=TRUE)
mean_culinary <- mean(agridata$culinary, na.rm=TRUE)
mean_events <- mean(agridata$events, na.rm=TRUE)

# Create a vector of mean values and activities
mean_valuesagri <- c(mean_direct, mean_agri_educ, mean_recreation, mean_accom, mean_hands_on,
                    mean_culinary, mean_events)
activitiesagri <- c("direct-to-\nconsumer sales", "agricultural\n education", "recreation",
                  "accomodation", "hands-on\n experiences", "culinary\n experiences", "events")

# Order mean values and activities simultaneously
ordered_indicesagri <- order(mean_valuesagri)
mean_valuesagri <- mean_valuesagri[ordered_indicesagri]
activitiesagri <- activitiesagri[ordered_indicesagri]

# Subtract 1 from mean values to start bars at 1
mean_valuesagri <- mean_valuesagri - 1

# Create a bar plot with means on the y-axis
barplot(mean_valuesagri, ylim = c(0, 4), main = "Mean Interest Level in Agri-tourism Activities",
        xlab = "Activities",
        xlab = "Mean Interest", col = "deepskyblue", names.arg = activitiesagri)
legend("topleft", legend= paste("Sample Size:", 204), bty = "n", fill = "white")
```

Appendix 3.5 Workshop

Table 3.1
Workshop program.

Program	Time
Welcome and introduction of the study	15 min
Introduction of participants	5 min
First group discussion about opportunities and challenges (same background)	20 min
Present results from discussion	20 min
<i>Break</i>	<i>20 min</i>
Second group discussion about actions and responsibilities (mixed groups)	25 min
Present results from discussion	20 min
Prioritisation of further steps	10 min
Wrap-up	10 min

We started the workshop with an introduction of ourselves and our study. In the next step, the workshop participants introduced themselves. Then the first group discussion was introduced, where the participants sat together with the same background (Tourism, Agricultural, Environmental Department and farmers). A vision how agri-tourism should look like in ten years according to their perception was developed and opportunities and challenges in agri-tourism were identified and collected on a flipchart. After the discussion the four groups presented their results. After a break a second group discussion with mixed groups (people from different backgrounds) was introduced where actions and responsibilities for implementing agri-tourism were collected on post-its. Afterwards the groups presented their results and stucked the post-its on a flipchart where the actions and responsibilities were clustered into topics by the participants and the facilitators. After clustering the inputs, every participant received three points to prioritise the actions that are most important for implementation.

Appendix3.6 Heatmap challenges

Table 3.2
Heatmap of challenges described by the interviewees including the subcategories (Farmer interviews = blue, expert interviews = grey).

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
On farm level																		
<i>Financing</i>	■	■	■				■	■			■	■				■		■
Projects dropped	■																	
Takes time		■						■										
Proper infrastructure	■				■					■	■						■	
<i>Work force</i>	■	■	■	■			■				■	■			■			■
Time and capacity	■						■											
Lack or mistrust in local workers		■		■			■	■										
<i>Education and trainings</i>										■		■	■	■	■			
Lack in specific topics										■		■	■	■	■			■
Language barriers	■				■													■
<i>Young people</i>	■						■	■			■							
Motivation of young people	■			■							■	■						
Need for young people	■						■	■			■							
<i>Creating a business plan</i>	■		■	■											■	■		■
<i>Insurance and security</i>									■	■	■			■		■	■	■
<i>Access to agricultural land</i>	■					■	■					■						
On Seychelles level																		
<i>Policies and institutional regulations</i>																		
Clear standard/policy										■				■	■		■	■
Tax management										■				■				
Inclusiveness of stakeholders										■				■				
Rejection of projects						■								■				
<i>Creating the offer</i>																		
Tourist demand and perception						■				■								■
Unique offers						■					■	■			■		■	■
Copying and diversification						■						■					■	■
Seasonality of agricultural production																		■
<i>Cooperation and communication</i>																		
No willingness to cooperate		■												■		■		
Lack of crossectoral communication		■								■						■		■
<i>Land use conflicts</i>												■					■	■

Appendix Chapter 4

Terrestrial adventure tourism

Appendix 4.1 Interview questions

Interview with adventure tourism expert

1. Could you tell us more about what you do in the adventure tourism industry?
2. Do you see a sudden trend in higher demand for adventure tourism, or has this been a gradual change? Why do you think this demand is growing?
3. What do you think the Seychelles could implement to appeal to this community, and how?
4. We see there is demand for adventure tourism activities in the Seychelles, could you think of reasons why not more activities are implemented here? Why does this gap exist?
5. Do you have any examples of other island nations or tropical destinations that were in this same situation and closed the gap, and how did they do so?
6. Could you break down your argument that with adventure tourism more money is being spent and stays within the nation (vs. mass tourism)?
7. Do you think partnerships between third parties and big resorts are a responsible and effective way of involving locals in the adventure tourism business?

Interview with local ecologist

1. Our approach is to have a list of terrestrial adventure activities that could be suitable to the Seychelles when considering ecosystems present. We have done literature research on the ecosystems and on terrestrial activities that exist, but are hoping that you could validate...
 - That this list of activities is ecosystem-wise possible in the Seychelles?
 - If you can think of any activities we may have missed?
2. We then, based on literature, performed an assessment of the environmental harm of each activity. In your experience, what are major harms that these activities, or having people engaging with the environment at all, could bring to the ecosystems?
3. Based on your experience with conservation, do you believe there are ways that any of these activities can be introduced without compromising the environment?
 - What would have to be taken into account?
 - Or if not possible according to your expertise, what are inevitable results of terrestrial adventure tourism activities?
4. What are your overall thoughts on terrestrial adventure tourism? Is this something you support, something you are worried about; an opportunity or a threat?
5. Do you have any further comments or knowledge that you believe could help us in our research?

Appendix 4.2 Tourist Survey Questions

Tourist Survey: Adventure- and Agri-Tourism

Start of Block: Intro

Intro Tourist Survey for the Transdisciplinary Case Study, ETH Zurich, Switzerland

This study is being conducted by students of the Transdisciplinary Case Study at ETH Zurich, Switzerland. Transdisciplinary case studies are problem-oriented and research-based Master's courses. The goal of this research study is to gain insights into activity preferences of tourists in the Seychelles. The survey will take approximately 5 minutes to finish.

All information is treated confidentially and fully anonymously. Data will be processed in accordance with the Swiss Federal Act on Data Protection. The results of this survey will be used for research purposes and will be published in a scientific report. The study design was reviewed and approved by the Ethics Commission of ETH Zurich.

Should you have any questions concerning this survey feel free to reach out to:
tdcs2023@usys.ethz.ch

This survey was reviewed and approved by the ETH Zurich Ethics Commission

Consent:

- I hereby confirm that I am 18 years or older and voluntarily consent to my responses being used in anonymized form (1)
- I do not consent and will not take part in this survey (2)

Page Break

Q24 We will begin by asking you some general questions about the setting of your stay in the Seychelles

4. Island Which island(s) are you staying on? (select all that apply)

- Mahé (1)
 - La Digue (2)
 - Praslin (3)
 - Other: (4) _____
 - Do not know/prefer not to answer (5)
-

5. Accommodation What type of accommodation are you staying at? (select all that apply)

- All inclusive resort (e.g. large hotel with all food and drinks included) (1)
 - Large hotel/resort (2)
 - Small hotel/full guest house (full board / half board) (3)
 - Self catering (e.g. AirBnB) (4)
 - Bed and breakfast (5)
 - Other: (6) _____
 - Do not know/prefer not to answer (7)
-

barriers 11. What could be factors that stop you from doing one of these activities? (select all that apply)

- Financial reasons (1)
 - Accessibility/Transportation (2)
 - Safety concerns (3)
 - Weather (4)
 - Enough (other) activities offered by hotel (5)
 - Nothing (6)
 - Do not know/prefer not to answer (7)
-

travel distance 12. How far would you be willing to travel for an activity?

- Other island (1)
 - less than 30 minutes (same island) (2)
 - more than 30 minutes (same island) (3)
 - Do not know/prefer not to answer (4)
-

Page Break _____

Q22 You will now be asked some questions about your interest in other tourism activities, especially those that involve visits to farms.

10. Agri-tourism

Which of these activities are you interested in doing? (select all that apply)

	Not interested at all (1)	Somewhat not interested (2)	Neutral (3)	Somewhat interested (4)	Very much interested (5)	Prefer not to answer (6)
Direct-to-consumer sales (farm stands, pick-your-own fruits and vegetables, etc.) (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agricultural education (farm and factory tours, learning about a local product such as vanilla, tea or rum, etc.) (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recreation (horseback riding, petting zoo, etc.) (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accommodation (overnight farm stay) (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hands-on experience (helping with harvesting, planting, etc.) (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Culinary experiences (cooking classes, tastings, farm-to-table dining with a specialty chef, brunch in a tea garden with a view, etc.) (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Events (harvest festivals, country weddings, etc.) (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

1. Gender What is your gender?

- Male (1)
- Female (2)
- Other (3)
- Do not know/prefer not to answer (4)
-

2. Age What is your birth year?

3. What is your country/region of residency?

- China (7)
- France (3)
- Germany (1)
- Netherlands (12)
- Russia (6)
- South Africa (5)
- Switzerland (2)
- UAE (4)
- UK (8)
- USA (9)
- Do not know/prefer not to answer (13)
- Other (14)
-

Display This Question:

If Country of residency = Other

If other:

- Africa (9)
- Asia (1)
- Europe (2)
- Middle East (3)
- North America (4)
- Oceania (5)
- South America (6)
- Other (7)
- Do not know/prefer not to answer (8)

Page Break

13. Extra Do you have any additional comments?

End of Block: Intro

Appendix 4.3 Tourists and Locals survey additional figures

Table 4.1
Dependent and independent variable of the multiple linear regression.

Dependent Variable	Description	Test
Terr_adv	Continuous variable between 0 and 36 which indicates the overall interest of the participant to do terrestrial adventure activities. It is calculated as the sum of interest levels in the individual activities.	Multiple linear regression
Independent Variables	Description	Test
Age	The age of the participant at the time of filling out the survey	Descriptive statistics
Gender	The gender of the participant; male, female or other	Multiple linear regression
Country	Country of residence	Descriptive statistics
Island	Factorial variable referring to which island(s) the survey participant is staying on (4 factors)	Multiple linear regression
Descriptive statistics		
Accommodation	A set of 6 binary independent variables indicating which accommodation type(s) participants stayed at	Multiple linear regression
Descriptive statistics		
		20 min
		10 min
Travel_people	Refers to the travel composition, i.e. who the respondent is traveling with	Multiple linear regression
Descriptive statistics		
Barriers	Binary variables referring to barriers which would hinder tourists from taking part in an activity they would otherwise be interested in	Multiple linear regression
Descriptive statistics		
Outside	Discrete variable on a scale of 0 to 4 indicating the participant's level of interest in doing adventure activities outside the hotel	Multiple linear regression
Descriptive statistics		
Inside	Discrete variable on a scale of 0 to 4 indicating the participant's level of interest in doing adventure activities inside the hotel	Descriptive statistics

Figure 4.1
Islands on which tourists stayed.

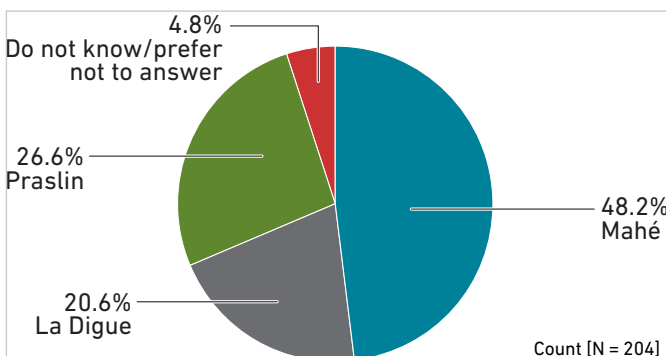


Figure 4.2
Type of accommodation tourists are staying at.

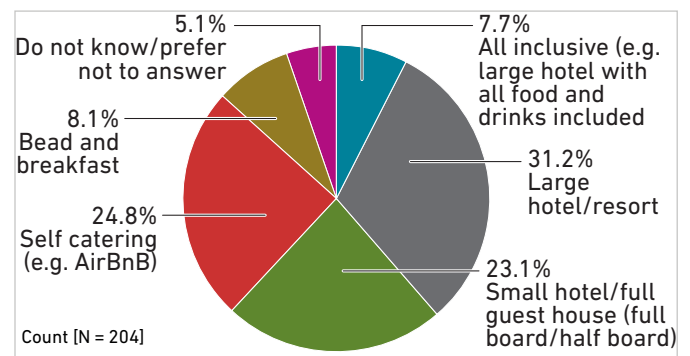


Figure 4.3
With whom tourists are traveling.

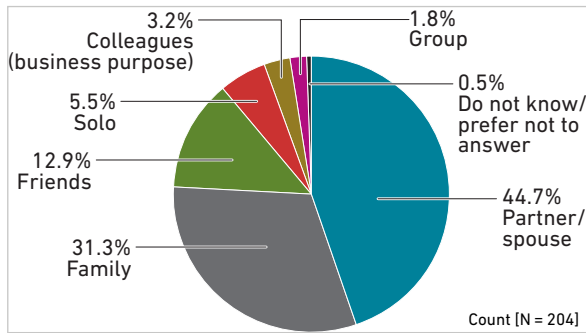


Figure 4.2
Tourists' willingness to travel for desired adventure activities.

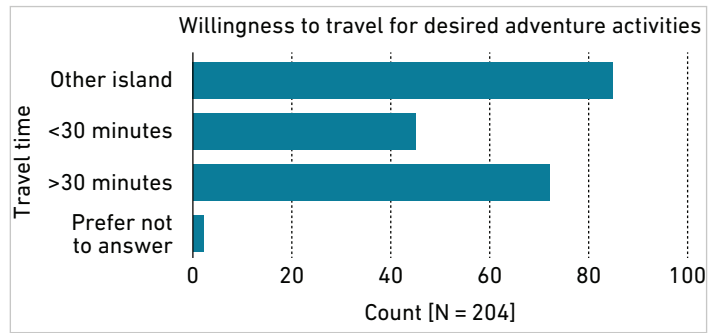


Figure 4.5
Age distribution of tourists surveyed.

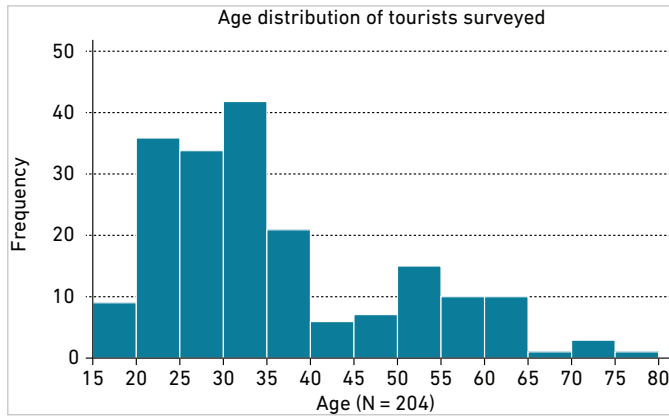


Figure 4.6
Regions of residency if selected 'Other'.

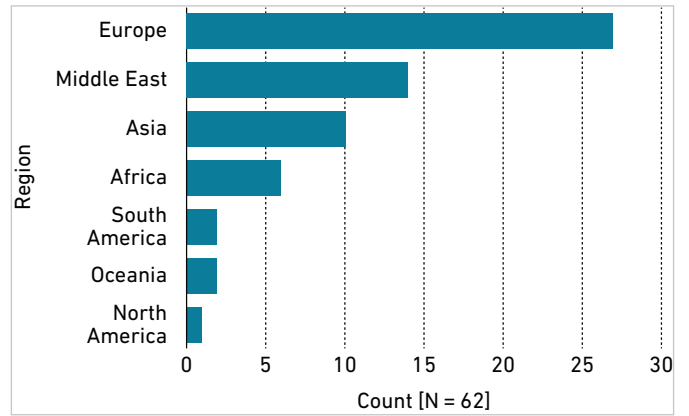


Figure 4.7
Age distribution of Seychellois surveyed.

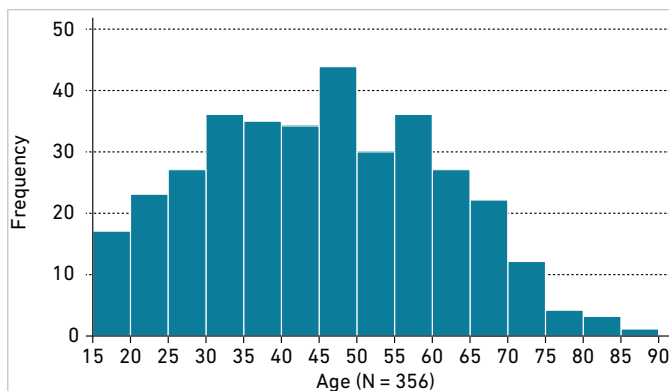
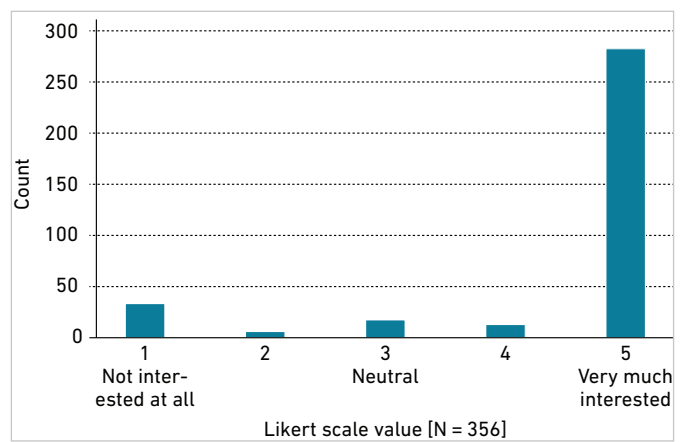


Figure 4.8
Seychellois willingness to do adventure activities alongside the tourists.



Appendix 4.4 Workshop outline

0. Preparation

Questions sent to the participants to prepare beforehand:

1. *How do you believe the Seychelles could benefit from introducing more/new terrestrial adventure tourism activities?*
2. *Taking the perspective of the expert in your field; what barriers do you foresee in implementing terrestrial adventure tourism activities in the Seychelles? From a more general perspective, as a Seychellois; what barriers do you foresee in implementing terrestrial adventure tourism activities in the Seychelles?*
3. *What do you anticipate other parties could be motivated by, or concerned about, in relation to the implementation of new adventure activities?*
4. *Are there any specific environmental regulations or guidelines that you believe should be followed when introducing adventure activities to ensure sustainability?*

1. Introduction and Context Setting:

- *Welcome the participants and provide an overview of the workshop's objectives and ground rules.*

The objectives:

- To understand each parties' perspective on the implementation of terrestrial adventure tourism activities.
- Identify areas of shared goals and possibilities

Ground rules:

"We will be going through a mix of moderated and more open discussion formats today. We kindly ask everyone to let other participants finish speaking. We also anticipate there could be opposing viewpoints, and we encourage those to be explored and challenged. Please challenge the idea rather than the individual. Each participant brings a unique perspective and knowledge to this room and it is valuable to all of us to utilize this to its best potential, by ensuring that everyone feels comfortable to participate".

- *Explain the importance of balancing terrestrial adventure activities with environmental concerns.*
- *Share relevant data and information about the potential impacts of adventure activities on the environment.*

1. Quality over quantity: carrying capacity.
2. Shift in tourist interests: explore cultures and environments.
3. Limit financial leakage: more revenue + keep money in the local economy.
 - It is important that these activities do not come at the cost of the Seychelles pristine natural environment.
 - Finding a way to sustainability incorporate terrestrial adventure activities.

2. Research feedback/preliminary findings

- *Ask for feedback specific to our research*
 - Are these results in line with your understanding of the situation in the Seychelles? If not, what could be the reason?
 - In what way do you see these results being useful when considering terrestrial adventure tourism activities for implementation?
 - How do you believe the research could be strengthened?

3. Individual Perspectives - clustering exercise

- Give each participant an opportunity to express their initial thoughts; concerns and possibilities about adventure activities and their impact on the environment.

The task: keywords

Recall the preparation questions: Ask the participants to please write down keywords of their answers to each question. Write each keyword on a separate piece of paper.

1. How do you believe the Seychelles could benefit from introducing more/new terrestrial adventure tourism activities?
2. Taking the perspective of the expert in your field; what barriers do you foresee in implementing terrestrial adventure tourism activities in the Seychelles? From a more general perspective, as a Seychellois; what barriers do you foresee in implementing terrestrial adventure tourism activities in the Seychelles?
3. What do you anticipate other parties could be concerned about, or motivated by, in relation to the implementation of new adventure activities?
4. Are there any specific environmental regulations or guidelines that you believe should be followed when introducing adventure activities to ensure sustainability?

Moderation:

- Have each participant write down key words from their preparation before everyone presents (so that the thoughts are undisturbed).
- Cluster the key words on the white board; after presenting the participant comes up to cluster their keywords.
- Additional notes to be taken on the flipchart by moderators.

The clustering:

- Ask a participant to explain one of their key words to questions 1, then invite them to put the notecard up on the wall.
- Ask if somebody else has a similar point to what was put up.
- Ask if this person has anything to add to their keyword, then invite to put it up on the wall as well.
- Ask all others with similar answers to put up their notecard.
- Comment on differences or similarities observed between participants, as well as on unique perspectives/points.
- Ask if there are any different keywords which are not yet on the board.
- Repeat until done, make sure everybody has a chance speak up.

4. Information Exchange and Discussion - Case Study:

- Encourage both parties to share their expertise, research findings, and any existing regulations or policies.
- Facilitate an open dialogue to exchange knowledge and perspectives.

First, the moderator explains what a canopy trail is at the hand of a definition and pictures. Then the results of the canopy trail in our survey are presented.

The task:

“Imagine there is a discussion of implementing this activity”; Imagine from your perspective as an expert; How would you respond, what would you do?

1. General feedback, does this activity fit Seychelles?
2. More specifically, considering tradeoffs between tourism and the environment; what are your thoughts from both an environmental and a tourism perspective?
3. What would need to be secured and addressed, what could you contribute from your expertise?
4. Open discussion....

Moderation:

- We have the case description and the questions up on the slide for people to see.
- We take notes on flipchart for everyone to see.

5. Identifying Common Ground:

- Encourage participants to identify shared goals and areas of agreement.

Moderation:

- “Is there anyone who has seen an area where we are all in agreement?”
- Highlight the overlap we have observed during the clustering and discussion.
- → We write the keywords on flipchart.

6. Collaboration and Interdependencies:

- Reflect on what each participant’s role is and what is needed from others.

→ please reflect for yourself: What could you do as an expert in your field, what is your role? What do you need from others?”

7. Concluding thoughts:

- Share the follow up of our work.
- Thank you again!
- If when you are home, traveling, or at work, something comes to mind you would like to share, please feel free to do so. Do not hesitate to contact us again.
- Present and hand out final event invitation.

Appendix 4.5 International case study

During the first workshop at ETH Zurich in April, concerns regarding legal feasibility were brought to light. We therefore included a case study as an appendix.

The case study is meant to inspire ways of implementation and highlight how other island states have overcome difficulties when it comes to regulation and insurance of terrestrial adventure tourism activities. We have selected a case study surrounding an island state to better draw similarities with the Seychelles geography and topography. It is important to note that activities that are successful in other countries may not be feasible in the Seychelles, as the country possesses unique characteristics and challenges such as a relatively small land area and limited expertise and safety standards on certain activities (Workshop at ETH Zürich). Nevertheless, we believe that there are similarities, e.g., natural environment as well as a safe tourism reputation to protect.

The regulation of ziplines and canopy tours in Hawaii

The ecological benefits of canopy walkways

Canopy tours consist of platforms and walkways such as hanging bridges in the treetops, allowing the participants to hike, climb obstacles, or use ziplining cords to navigate a path in the treetops (Worldwide Zip Line, 2023). The activity has been described as a ‘non-intrusive way to get closer to the action’, meaning participants can spot wildlife and vegetation from close by with minimal disturbance to the ecosystem (Charukesi Ramadurai, 2022). Canopy walkways are a more comfortable and less environmentally impactful way of navigating the tropical forest as there is no need to remove vegetation to pave smooth paths, and the treetops tend to be less humid than the ground level. The trails can be designed in a way to be accessible to people of any age and fitness level.

Malaysia has discovered the use of canopy trails and is in the top five countries selected by the global Canopy Program. The canopy trails are popular as they allow visitors to see wildlife that would be difficult to nearly impossible to spot from the ground. Malaysian experts describe their canopy trails as a tool to inspire visitors to re-examine their link with nature, and to show the magic of the rainforest in order to have people love them enough to protect them, turning areas into ecotourism locations that were not before (Charukesi Ramadurai, 2022). The TREE Foundation agrees with the Malaysians that canopy walkways promote ecotourism, education, and conversation, by allowing visitors to immerse themselves with nature and by providing a unique viewpoint for scientific research (The Tree Foundation, 2023). MISSION GREEN is an initiative devoted to introducing canopy walkways around the world for these exact reasons, additionally mentioning that canopy walkways are an economic incentive to preserve forests in their most pristine state, stop global deforestation and protect biodiversity (Meg Lowman, 2023).

The Sunrise Analysis: Regulation of Ziplines and Canopy Tours¹

Both ziplining and canopy tours are subject to safety standard setting when it comes to construction and operation. This section summarizes the Sunrise Analysis, a case study on the regulation of ziplines and canopy tours in Hawaii, conducted in the year 2012. The case is a report that assessed whether there was a need to regulate ziplines and canopy tours, difficulties of regulation as well as appropriateness of different regulatory approaches. (Marion M. Higa, 2012)

In the case of Hawaii, the outdoor adventure industry is rather new; in 2005 there were 9 ziplining and canopy tours in the United States and Canada, while by 2012 this number had risen to over 300 (Marion M. Higa, 2012, p. 3). In 2012 there were 22 known canopy tours and ziplines operating in Hawaii. An estimated 2,000 people participated in the tours each day, with a price range from 90USD to 200USD per person (Marion M. Higa, 2012, p. 5).

A growing market, and a desire for regulation

Two large standard setting organizations had developed, but there was still a lack of qualified persons to install, inspect, and train employees. The largest standard setting organization was the Association of Challenge Course Technology (ACCT). At the time of this case study there were no federal or Hawaii regulations on this market. Other states regulated zipline courses under 'amusement rides', but with the industry growing, Hawaii was looking to regulate the tours in their own category. The main driver to implement regulation were concerns about operators who do not follow industry standards or who do not obtain insurance, which can be a risk to the island's reputation as a tourist destination.

A draft of a senate bill placed the responsibility of regulation within the Department of Labor and Industrial Relations. Under this regulation permits are required to operate the tours, which are annually rewarded after inspection. Operators are required to; construct, operate and train their employees in accordance with the industry standards; to have annual inspections; and to have liability insurance. For this system, certified inspectors and engineers need to be hired by the department. The liability of injury, loss or damage caused by failure to follow the safety standards, fall onto the operator.

This draft received opposition, and was even labelled as problematic and costly. According to opponents, the inspectors who currently inspect amusement rides and elevators do not have the expertise to inspect the zipline and canopy tours, and are already overwhelmed with the maintenance of standards in their own field. Hence, the Sunrise Analysis was brought to life, with the intention of consulting on the regulation of ziplines and canopy tours.

The three regulation approaches

The three regulatory approaches considered for analysis were licensing, certification, and registration. Under licensing, only those who meet requirements and obtain a license are allowed to operate. Services can be offered without proper certification, however a certificate functions as a title protection. Under registration, operators are simply required to register the services onto the State roster. The latter option is used for activities where the risk to health and safety is considered relatively low.

The Sunrise Analysis found that canopy and zipline tours come at a relatively low risk. One of the purposes of zipline and canopy tours is to provide thrill and excitement, and they thus come with inherent risks. Nevertheless, in the Sunrise Analysis case there was no documented evidence of harm to the public from using the facilities, other than the inherent risk that the participants are willing to accept. Perhaps even more importantly, there was no data that would lead to the belief that less injury would occur if the industry were to be regulated.

The consultants on the case assessed the relative safety of the facilities in place. According to a leading insurance agent, which insured the majority of the facilities, there was an injury/participant ratio of 0.00006. To put this into perspective; "from estimates by the National Safety Council on sports and recreational injuries requiring hospital care, this ratio is lower than that of archery (.0006), snowboarding (.009) and football (.0508)" (Marion M. Higa, 2012, p. 17). It should be noted that these numbers do not reflect the severity of the injury, or the operators that run their facilities without insurance.

¹ Marion M. Higa. (2012). Sunrise Analysis: Regulation of Ziplines and Canopy Tours. State of Hawai'i. <https://files.hawaii.gov/auditor/Reports/2012/12-08.pdf>

Self-regulation by insurance

The report finds that insurance requirements alone already provide a measure of safety. Insurers control the level of safety by not accepting operators that have not been inspected to meet industry standards set by the ACCT. The renewal of insurance requires the operator to hand over annual inspection reports. Insurance forces the operator to perform annual inspections and adhere to safety standards automatically. Additionally, operators depend on referrals from hotels and touring agencies to obtain participants. These hotels and agencies require insurance by the facility operator in order to protect themselves from liabilities. On top of that, landowners will not allow the operators to use their property without being covered by the operator's insurance.

All these factors result in a push to insurance for the zipline and canopy tours to be in business, and as insurance requires annual inspections, the business is self-regulating.

Registration as regulatory approach

However, the consultants acknowledge that the safety concerns will likely not disappear when advised registration is sufficient, and that further regulation is not necessary. Indeed, the Department of Labor and Industrial Relations stated that self-regulation does not provide an appropriate level of safety.

Nevertheless, in practice it does. Registration requires the operator to register with the State. The State can pair this with a requirement for the operator to be insured by a regulatory agency, and add on other requirements, for example, to train their employees. The system can also enforce provisions for unregistered operators. In addition, registration comes with great advantages such as limited government involvement needed, and lower costs. In fact, the business will overall be safer than when a governmental agency with a lack of capacity and expertise will perform these inspections themselves.

This registration that depends on self-regulation of the business is used in Texas for amusement rides and canopy and zipline tours, as well as for ski lifts in Alaska. The system relies on insurance required safety inspections and insurance certificates. The annual inspection comes from expert inspectors accredited by the insurance office, and not from the insurance office nor the government itself.

The Sunrise Analysis report concludes that there was no evidence for a level of harm that urges the need to heavily regulate zipline and canopy tours. By annual inspection based on industry standards for insurance, the business self-regulates safety standards that are in place. There was no department in Hawaii that was capable of issuing permits or certifying due to time constraints and a lack of expertise. Therefore, pushing for licensing or certification by the Department of Labor and Industrial Relations could have resulted in a less safe situation. In the case of Hawaii, self-regulation is thus the safest and most cost-efficient way of managing safety guidelines in the zipline and canopy tour business.

Discussion

There are parallels between the Hawaii case study and the current position of the Seychelles, as both feel a desire for regulation of adventure activities to protect their reputation as a safe tourist destination. Additionally, both are in a search of a body that could regulate, inspect, and that has the necessary expertise. It is important to note that though both the Seychelles and Hawaii are island states, Hawaii can lean on the legislation and resources from the United States.

Nevertheless, the finding that in this case study insurance is enough of a force for proper regulation, may also apply to the Seychelles. This case study provides as an example, but highlights that it can be worthwhile to look into adapting or adopting existing international regulations for specific activities, which are then used as the safety standard for insurance.

Appendix Chapter 5

Local identity and the societal impact of tourism

Appendix 5.1 Survey English

Survey_Social_Impact_EN

Start of Block: Intro

Introduction

Hello. We are a group of masters students from ETH Zürich in Switzerland and University of Seychelles. We are conducting this survey together in order to know your opinions on the tourism industry currently and the future of tourism in Seychelles. This survey is anonymous, and your data will be collected for research purposes only. The study design was reviewed and approved by the Ethics Commission of ETH Zurich. Should you have any questions concerning this survey feel free to reach out to: tdcs2023@usys.ethz.ch. It will take about 15 minutes.

- I confirm that I am 18 years old or older, and I give my consent for my answers to be used anonymously. (1)
- I do not give my consent, and I will not participate in this survey. (2)

End of Block: Intro

Start of Block: Question Bloc Social Impact

Q1-Q18 The first part includes some statements of positive and negative impacts of tourism on Seychelles. Please choose the extent to which you disagree or agree.

	Disagree (1)	Somewhat disagree (2)	Neutral/prefer not to say (3)	Somewhat agree (4)	Agree (5)
Tourism allows us to meet more people and learn about other places. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourism provides jobs. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourism increases traffic congestion, noise and pollution. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourism increases the cost of living in the Seychelles. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourism increases opportunities for local businesses. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourism helps improve living conditions in Seychelles. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourism helps develop infrastructure that benefits my community (e.g. healthcare or education). (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourism in Seychelles tends to divide people into high and low social classes. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The development of tourism has forced local people to leave their original homes. (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Tourists don't respect nature. (10)

Tourism development provides an incentive for conservation of Seychelles' natural environment. (11)

Tourism brings me more options of restaurants and shops. (12)

Tourism increases drug problems in Seychelles. (13)

Tourism is likely to increase crime in Seychelles. (14)

Tourism facilitates cultural exchange and interaction between locals and visitors. (15)

Tourism affects residents enjoyment of beaches. (16)

The cultural identity and authenticity of the Seychelles is being lost due to tourism. (17)

Tourism helps in promoting local arts, crafts, and traditional practices in Seychelles. (18)

Q19-22 The following part includes some statements of the possible conflicts between tourists and locals in Seychelles. Please choose the degree that you agree or disagree on them.

	Disagree (1)	Somewhat disagree (2)	Neutral/prefer not to say (3)	Somewhat agree (4)	Agree (5)
Local residents receive less attention from the government compared to tourists. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is a competition in housing between residential and tourist accommodation. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is an imbalance of money spent on tourism and on local infrastructures. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is an imbalance between the resources consumed (water, food, electricity) by tourists and locals. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q23-25 The following part includes some general ideas on tourism in Seychelles. Please choose the degree that you agree or disagree on them.

	Disagree (1)	Somewhat disagree (2)	Neutral/prefer not to say (3)	Somewhat agree (4)	Agree (5)
The Seychelles depend too much on tourism (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local residents suffer from living in a tourist destination area. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local residents are prevented from some beaches by hotels. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q26-29 The following part includes some statements that start from your perspective. Please choose the degree that you agree or disagree on them.

	Disagree (1)	Somewhat disagree (2)	Neutral/prefer not to say (3)	Somewhat agree (4)	Agree (5)
I'm proud that Seychelles attracts a lot of tourists. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like tourism in Seychelles as it is now. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I avoid tourists or certain places that are too busy with tourists. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is fair that tourists pay a higher price than locals for services such as car rental, inter-island ferries, domestic flights. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q30 The next question is related to the new bus ticket system. Please choose the answer according to your opinion.

	Disagree (1)	Somewhat disagree (2)	Neutral/Prefer not to say (3)	Somewhat agree (4)	Agree (5)
A day pass would be useful to me. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Question Bloc Social Impact

Start of Block: Question Bloc Adventure Tourism

Q31 The next questions are related to the topic outdoor activities in Seychelles. Please choose the answers according to your opinion. To what degree are you personally interested in taking part in the following activities for leisure?

	Not interested (1)	Somewhat not interested (2)	Neutral/ prefer not to answer (3)	Somewhat interested (4)	Interested (5)
Horseback riding (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jetski (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Zip-lining (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hiking (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sky diving (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yoga (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cycling (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Climbing/bouldering (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mountain biking (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Canopy trail (trail in the trees) (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Snorkeling/ scuba diving (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wildlife tour (bird watching) (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q32 Please choose the answer according to your opinion.

	Not interested (1)	Somewhat not interested (2)	Neutral/Prefer not to say (3)	Somewhat interested (4)	Interested (5)
Would you take part in the activities (which were presented at question 31) where tourists are also present? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Question Bloc Adventure Tourism

Start of Block: Question Bloc Cultural Identity

Q33 The next questions are related to Seychellois Creole identity. Please choose the extent to which you agree or disagree with them.

	Disagree (1)	Somewhat disagree (2)	Neutral/Prefer not to say (3)	Somewhat agree (4)	Agree (5)
Creole philosophy of diversity and	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

inclusiveness
(1)

Creole art,
music and
dance (2)

Seychellois
mixed cultures
(3)

Seychellois
history of
colonization (4)

Creole language
(5)

Creole food and
cuisine (6)

Creole
traditions
among families
and
communities (7)

Creole festivals
like
Independence
Day, Carnivals,
etc. (8)

Friendliness of
people (9)

Religious
festivities (10)

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Question Bloc Cultural Identity

Start of Block: Question Block Demographics

Q34 Now we are at the last part asking for some of your personal data. These can give us a better perspective. Again you can always choose not to say if you don't feel comfortable.
What is your gender?

- Male (1)
- Female (2)
- Others (3)
- Prefer not to say (4)

Q35 What is your age?

Q36 What is your education level?

- Less than primary (1)
- Primary (2)
- Secondary (3)
- Post Secondary/ Tertiary (4)

Q37 Which district do you live in?

- Mont Buxton (1)
- Les Mamelles (2)
- Pointe Larue (3)
- Anse Royale (4)
- Port Glaud (5)
- Belombre (6)
- La Digue and Inner Islands (7)
- Others (8)

Q38 How long have you lived in the Seychelles?

- Less than 1 year (1)
- 1-5 years (2)
- 5-10 years (3)
- More than 10 years (4)

Q39 What is your monthly income in SCR (here we mean money from all sources)?

- Less than 10'000 (1)
- 10'000-30'000 (2)
- More than 30'000 (3)
- Prefer not to say (4)

Q40 Are you working in tourism-related sector?

- No (1)
- Accomodation (2)
- Tour guide (3)
- Selling goods (4)
- Selling other services (5)
- Marketing and promotion (6)
- Restaurants (7)
- Maritime related activities (8)
- Other tourism-related sector, such as: (9)

Q41 I would like to work (more) in the tourism sector.

- Yes (1)
- No (2)

Q42 Do you have your own tourism business?

- Yes: (1) _____
- No (2)

Q43 How many people live in your household?

End of Block: Question Block Demographics

Appendix 5.2 Survey Creole

Survey_Social_Impact_CREOLE

Start of Block: Intro

Introduction

Bonzour. Nou en group etidyan Master Liniversite ETH Zurich Laswis e Liniversite Sesel. Nou pe fer sa sondaz ansanm pour nou konnen ki ou panse lo tourizm dan Sesel aktyelman e dan le fitir. Sa sondaz I anonim e lenformasyon ranmase pour ganny servi dan kad sa resers selman. Tou lenformasyon pou ganny trete avek konfidansyalite e pou reste antyerman anonim. Konsep sa letid in ganny egzaminen e aprouve par Komisyon Etik ETH Zurich. Si ou annan okenn kestyon konsernan sa resers pa ezite pour kontakte nou lo: tdcs2023@usys.ethz.ch. I pou pran ou apepre 15 minit pour komplete.

- Mon konfirman ki mon annan18 an ou plis e mon donn mon konsantman pour mon bann larepons ganny servi dan en fason anonim. (1)
- Mon pa donn mon konsantman e mon pa pou pran par dan sa sondaz. (2)

End of Block: Intro

Start of Block: Question Bloc Social Impact

Q1-Q18 Par anba i bann deklarasyon lo tourizm dan Sesel. Swazir ki kantite ki ou dakor ouswa pa dakor avek sak deklarasyon. Premye bout I enkli bann deklarasyon baze lo bann lenpak tourizm ki pozitiv e negativ lo Sesel.

	Mon pa dakor (1)	Mon plito pa dakor (2)	Mon napa okenn lopinyon (3)	Mon plito dakor (4)	Mon dakor (5)
Tourizm i permet nou rankontre plis dimoun e dekouver lezot landrwa. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourizm i kree lanplwa. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourizm i fer annan plis konzesyon trafik, tapaz ek lezot polisyon. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourizm i fer ogmante pri lavi dan Sesel. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourizm i donn plis loportinite bann biznes lokal. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourizm i ede amelyor kondisyon lavi dan Sesel. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourizm i fer devlop bann lenfrastruktir ki benefisye nou lakominote (legzanp; lasante e ledikasyon). (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourizm dan Sesel i annan tandans separ lapopilasyon dan klas sosyal o e klas sosyal ba. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Devlopman tourizm in fors bann rezidan lokal pour kit zot prop lakour. (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Touris pa respe lanatir. (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Devlopman tourizm i en form lankourazman pour konservasyon lanvironnman natirel Sesel. (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourizm i ofer mwan plis swa lo kote laboutik ek restoran. (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourizm i fer annan plis problemn drog dan pei. (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I posib ki tourizm i anmenn plis krim dans Sesel. (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourizm i fasilite lesanz kiltirel ek lenteraksyon ant bann rezidan ek viziter. (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourizm I afekte lanmizman rezidan lo bann lans. (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lidantite kiltirel ek lotantisite Sesel pe perdi aköz tourizm. (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tourizm i ede dan promosyon lar lokal, lartizana ek bann pratik tradisyonnal dan Sesel. (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q19-22 Swivan I enkli bann deklarasyon baze lo bann konfli ki posib ant touris e rezidan lokal Sesel. Swazir ki kantite ki ou dakor ouswa pa dakor avek sak deklarasyon.

	Mon pa dakor (1)	Mon plito pa dakor (2)	Mon napa okenn lopinyon (3)	Mon plito dakor (4)	Mon dakor (5)
Gouvernman i donn rezidan lokal mwens latansyon ki touris. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I annan en konpetisyon dan lakomodasyon pour rezidan e sa ki pour touris. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I annan en debalansman ant larzan ki ganny depanse par touris e lenfrastruktir. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I annan en debalansman dan resours ki ganny konsonmen (delo, manze, elektrisite) ant touris e rezidan lokal. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q23-25 Swivan I enkli bann lide zeneral lo tourizm dan Sesel. Swazir ki kantite ki ou dakor ouswa pa dakor avek sak deklarasyon.

	Mon pa dakor (1)	Mon plito pa dakor (2)	Mon napa okenn lopinyon (3)	Mon plito dakor (4)	Mon dakor (5)
Sesel i depan tro bokou lo tourizm. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rezidan lokal i soufer lefe ki zot reste dan en landrwa touristik. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rezidan lokal I ganny anpese vizit bann lans ki kot lotel. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q26-29 Swivan I enkli bann deklarasyon ki baze lo ou perspektiv. Swazir ki kantite ki ou dakor ouswa pa dakor avek sak deklarasyon.

	Mon pa dakor (1)	Mon plito pa dakor (2)	Mon napa okenn lopinyon (3)	Mon plito dakor (4)	Mon dakor (5)
Mon santi mwan fyer ki Sesel i atir en kantite touris. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mon kontan ki mannyer tourizm Sesel i ete la konmela. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mon evit touris oubyen serten landrwa kot i annan bokou zot. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mon war li akseptab ki touris I pey plis ki rezidan lokal lo bann servis parey loto lwe, bato ant bann zil, vol domestik. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q30 Kestyon swivan I relye avek sistenn tiket bis. Swazir ki kantite ki ou dakor ouswa pa dakor avek sak deklarasyon.

	Mon pa dakor (1)	Mon plito pa dakor (2)	Mon napa okenn lopinyon (3)	Mon plito dakor (4)	Mon dakor (5)
En pas bis valid pour en zournen ti pou benefisyab pour mon. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Question Bloc Social Impact

Start of Block: Question Bloc Adventure Tourism

Q31 Kestyon swivan I relye avek topik aktivite ki ou pratik an deor. Swazir larepons baze lo ou lopinyon. Ki kantite lentere ou annan pou partisip dan sa bann aktivite lwazir ?

	Mon pa enterese (1)	Mon plito pa enterese (2)	Mon napa okenn lopinyon (3)	Mon plito enterese (4)	Mon enterese (5)
Mont seval. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jetski. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Zip-lining. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hiking. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sky diving. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yoga. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mont bisiklet. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leskalad (grenpe). (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mont bisiklet tou teren (VTT). (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Canopy trail. (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Snorkelling/Plonze. (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safari ouswa Visit (Zanimo Sovaz) Obzerv zwazo. (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q32 Swazir larepons baze lo ou lopinyon.

	Mon pa enterese (1)	Mon plito pa enterese (2)	Mon napa okenn lopinyon (3)	Mon plito enterese (4)	Mon enterese (5)
Eski ou ti pou partisip dan sa bann aktivite si touris ti prezan ? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Question Bloc Adventure Tourism

Start of Block: Question Bloc Cultural Identity

Q33 Kestyon swivan I baze lo lidantite Kreol Seselwa. Kantite ou dakor avek sa bann eleman kle pou kiltir Seselwa ?

	Mon pa dakor (1)	Mon plito pa dakor (2)	Mon napa okenn lopinyon (3)	Mon plito dakor (4)	Mon dakor (5)
Filozofi Kreol dan diversite ek enklisivite. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Lar, lanmizik ek ladans kreol. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kiltir melanje Seselwa. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Listwar kolonizasyon Seselwa. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Langaz Kreol. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manze ek lakwizin kreol. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tradisyon Kreol parmi lafanmir ek lakominote. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manifestasyon festival Kreol tel ki lafet Lendepandans, karnaval, eks. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lakey son pep. (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Festivite Relizyez. (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Question Bloc Cultural Identity

Start of Block: Question Block Demographics

Q34 Noun ariv denyen seksyon kot nou pou demand ou lenformasyon personel. Sa I pou ed nou ganny en konpran zot plis. Ou kapab swazir pou pa reponn si ou pa santi ou konfortab. Ki ou seks?

- Zonm. (1)
- Fanm. (2)
- Lezot. (3)
- Mon prefere pa dir. (4)

Q35 Ki ou laz?

Q36 Ki ou nivo ledikasyon?

- Pli ba ki primer. (1)
- Primer. (2)
- Segonder. (3)
- Tersyer. (4)

Q37 Dan ki distrik ou reste?

- Mont Buxton. (3)
- Les Mamelles. (4)
- Pointe Larue. (5)
- Anse Royale. (6)
- Port Glaud. (7)
- Bel Ombre (Belombre). (8)
- La Digue. (14)
- Lezot. (16)

Q38 Ki kantite letan I annan depi ki ou pe reste Sesel?

- Mwens ki 1 an. (1)
- 1-5 an. (2)
- 5-10 an. (3)
- Plis ki 10 an. (4)

Q39 Ki ou lapey an gro par mwan? (SCR)

- Mwens ki 10,000. (1)
- 10'000-30'000. (2)
- Plis ki 30'000. (3)
- Mon prefere pa dir. (4)

Q40 Eski ou pe travay dan sekter tourizm?

- Non. (1)
 - Akomodasyon. (2)
 - Gid Touristik. (3)
 - Vann prodwir. (4)
 - Vann lezot servis. (5)
 - Komersyalizasyon ek promosyon. (6)
 - Restoran. (7)
 - Aktivite maren. (8)
 - Lezot sekter ki relye avek tourizm, tel ki: (9)
-

Q41 Mon ti a voudre travay plis dan sekter tourizm.

- Wi. (1)
- No. (2)

Q42 Eski ou annan ou prop biznes dan sekter tourizm?

- Wi : (1) _____
- No. (2)

Q43 Combien de personnes vivent dans ta maison ?

Appendix 5.3 Sample

	Region	District_code	District_name	no_ea	no_hhd	EA/District
	Central	11	English River			
	Central	12	Mont Buxton	19	1.014	2
	Central	13	Saint Louis			
	Central	14	Bel Air			
	Central	15	Mont Fleuri			
	Central	16	Plaisance			
	Central	17	Roche Caiman			
	Central	18	Les Mamelles	20	787	2
	Central	19	Ile Perseverance			
	East-South	21	Cascade			
	East-South	22	Pointe Larue	17	1.047	2
	East-South	23	Anse Aux Pins			
	East-South	24	Anse Royale	27	1.523	3
	East-South	25	Takamaka			
	East-South	26	Au Cap			
	West	31	Baie Lazare			
	West	33	Anse Boileau			
	West	34	Grande Anse Mahe			
	West	35	Port Glaud	18	846	2
	North	41	Belombre	27	1.491	3
	North	42	Beau Vallon			
	North	43	Glacis			
	North	44	Anse Etoile			
PRASLIN	Praslin	51	Grande Anse Praslin	31	1.394	4
	Praslin	52	Baie Ste Anne			
LADIGUE	La Digue	61	Digue and Inner islands	20	1.171	2
				179	9.273	22

	Target	Sample	District	Total number of EA selected	Total number of households selected	EA/District		
Mahe	300	500	6	128	6.708	16		
Praslin	250	400	1	31	1.394	4		
La Digue	100	150	1	20	1.171	3		
Total	650	1.050	8	179	9.273	22		
FORMULA			FIGURES					
	District Sample 1	District Sample 2		District Sample 1	District Sample 2	5		
Central	16	11		Central	18	12		
East-South	24	22		East-South	22	24		
West	31			West	35			
North	43			North	41			
Praslin	52			Praslin	51			
La Digue	61			La Digue	61			
FORMULA								
	EA/District	EA Sample 1	EA Sample 2	EA Sample 3	EA Sample 4	EA Sample 5	EA Sample 6	EA Sample 7
Mont Buxton	2	10	7					
Les Mamelles	2,5	20	2	12				
Pointe Larue	2	11	15					
Anse Royale	3	7	9	23				
Port Glaud	2	4	8					
Belombre	3	9	21	14				
Grande Anse Praslin	4	17	11	18	10	10	6	28
Digue and Inner islands	2,5	6	1	4	1	15		

FIGURES									
	EA/District	EA Sample 1	EA Sample 2	EA Sample 3	EA Sample 4	EA Sample 5	EA Sample 6	EA Sample 7	EA Sample 8
Mont Buxton	2	15	7						
Les Mamelles	3	2	15	5					
Pointe Larue	2	10	8						
Anse Royale	3	9	14	7					
Port Glaud	2	2	15						
Belombre	3	14	21	3					
Grande Anse Praslin	4	1	5	28	10	8	7	16	26
Digue and Inner islands	3	9	1	5		19	2		

Districts Initials	Serial Number	EA	Total number of households	Total number of households that need to be selected	Process to randomly select households in selected EA		
					Interval	Random	Start Number
MB	7	1217	57	37	1	1	2
	15	1225	92	60	1	0	1
	2	1803	21	14	1	0	1
LM	5	1806	35	23	1	1	2
	15	1816	34	22	1	1	1
	8	2217	73	48	1	1	1
PL	10	2219	35	23	1	0	1
	7	2421	43	28	1	0	1
	9	2423	42	27	1	0	1
AR	14	2433	74	48	1	1	1
	2	3512	42	27	1	1	2
	15	3525	23	15	1	1	1
PG	3	4113	74	48	1	1	1
	14	4132	63	41	1	0	1
	21	4145	60	39	1	1	2
Total for Mahe			768	500			
GP	1	5111	70	65	1	1	2
	5	5115	47	44	1	0	1
	7	5120	75	70	1	1	1
	8	5121	34	32	1	0	1
	10	5123	46	43	1	1	2
	16	5129	39	36	1	0	1
	26	5139	52	48	1	1	2
28	5141	67	62	1	1	2	
Total for Praslin			430	400			
LD	1	6111	39	24	1	1	2
	2	6112	43	26	1	1	1
	5	6115	56	33	1	0	1
	9	6119	51	31	1	0	1
	19	6133	59	36	1	1	2
Total for La Digue			248	150			

Appendix 5.4 Process of randomising

Steps for Sampling for surveys on resident's perception on tourism

Step 1

L	M	N
	Target	Sample
Mahe	300	500
Praslin	250	400
La Digue	100	150
Total	650	1,050

Step 2: Table with the islands, region, district code and district name created

A	B	C	D
	Region	District_code	District_name
MAHE	Central	11	English River
	Central	12	Mont Buxton
	Central	13	Saint Louis
	Central	14	Bel Air
	Central	15	Mont Fleuri
	Central	16	Plaisance
	Central	17	Roche Caiman
	Central	18	Les Mamelles
	Central	19	Ile Perseverance
	East-South	21	Cascade
	East-South	22	Pointe Larue
	East-South	23	Anse Aux Pins
	East-South	24	Anse Royale
	East-South	25	Takamaka
	East-South	26	Au Cap
	West	31	Baie Lazare
	West	33	Anse Boileau
	West	34	Grande Anse Mahe
	West	35	Port Glaud
	North	41	Belombre
	North	42	Beau Vallon
	North	43	Glacis
	North	44	Anse Etoile
	PRASLIN	Praslin	51
Praslin		52	Baie Ste Anne
LA DIGUE	La Digue	61	Digue and Inner islands

Step 3: Central and East South being regions with 9 districts and 6 districts respectively, 2 districts to be selected randomly. From the regions West, North, Praslin and La Digue, 1 district to be randomly selected.

FORMULA		
	District Sample 1	District Sample 2
Central	19	12
East-South	26	22
West	32	
North	43	
Praslin	52	
La Digue	61	

Step 4: Above Table to be copied and pasted as values, hence obtaining the districts sampled for each regions.

FIGURES		
	District Sample 1	District Sample 2
Central	18	12
East-South	22	24
West	35	
North	41	
Praslin	51	
La Digue	61	

Step 5: HighlightdDistrict selected code in the previous table

Islands	Region	District_code	District_name
MAHE	Central	11	English River
	Central	12	Mont Buxton
	Central	13	Saint Louis
	Central	14	Bel Air
	Central	15	Mont Fleuri
	Central	16	Plaisance
	Central	17	Roche Caiman
	Central	18	Les Mamelles
	Central	19	Ile Perseverance
	East-South	21	Cascade
	East-South	22	Pointe Larue
	East-South	23	Anse Aux Pins
	East-South	24	Anse Royale
	East-South	25	Takamaka
	East-South	26	Au Cap
	West	31	Baie Lazare
	West	33	Anse Boileau
	West	34	Grande Anse Mahe
	West	35	Port Glaud
	North	41	Belombre
	North	42	Beau Vallon
	North	43	Glacis
	North	44	Anse Etoile
	PRASLIN	Praslin	51
Praslin		52	Baie Ste Anne
LA DIGUE	La Digue	61	Digue and Inner islands

Step 6: In each selected districts, look for the number of Enumeration Areas (EA) and the count of households for respective EA. Example for Mont Buxton is shown below. (Note : An individual sheet was created for each district containing the serial number, Enumeration Area (EA) and number of Households (HHD).

A	B	C	D
MONT BUXTON (MB)			
Serial Nur	EA	HHD	
1	1211	65	
2	1212	60	
3	1213	60	
4	1214	38	
5	1215	25	
6	1216	45	
7	1217	57	
8	1218	54	
9	1219	27	
10	1220	46	
11	1221	57	
12	1222	50	
13	1223	68	
14	1224	68	
15	1225	92	
16	1226	47	
17	1227	65	
18	1228	34	
19	1229	56	
	Total	1,014	

Step 7: Insert the total number of EA and total number of Households in the below table.

A	B	C	D	E	F
	Region	District_code	District_name	no_ea	no_hhd
	Central	11	English River		
	Central	12	Mont Buxton	19	1,014
	Central	13	Saint Louis		
	Central	14	Bel Air		
	Central	15	Mont Fleuri		
	Central	16	Plaisance		
	Central	17	Roche Caiman		
	Central	18	Les Mamelles	20	787
	Central	19	Ile Perseverance		
	East-South	21	Cascade		
	East-South	22	Pointe Larue	17	1,047
MAHE	East-South	23	Anse Aux Pins		
	East-South	24	Anse Royale	27	1,523
	East-South	25	Takamaka		
	East-South	26	Au Cap		
	West	31	Baie Lazare		
	West	33	Anse Boileau		
	West	34	Grande Anse Mahe		
	West	35	Port Glaud	18	846
	North	41	Belombre	27	1,491
	North	42	Beau Vallon		
	North	43	Glacis		
	North	44	Anse Etoile		
PRASLIN	Praslin	51	Grande Anse Praslin	31	1,394
	Praslin	52	Baie Ste Anne		
LA DIGUE	La Digue	61	Digue and Inner islands	20	1,171
				179	9,273

Step 8: Update the below table to find number of EA to be selected per district. Eg- EA per district to be selected on Mahe = Total number of EA selected on MAHE (128)/ Total Number of districts selected for survey (8).

L	M	N	O	P	Q	R
					Total number of households selected	
	Target	Sample	Disctrict	Total number of EA selected		EA/District
Mahe	300	500	6	128	6,708	16
Praslin	250	400	1	31	1,394	4
La Digue	100	150	1	20	1,171	3
Total	650	1,050	8	179	9,273	22

Step 9: For each selected districts, find EAs to be selected.

	Region	District_code	District_name	no_ea	no_hhd	EA/District
	Central	11	English River			
	Central	12	Mont Buxton	19	1,014	2
	Central	13	Saint Louis			
	Central	14	Bel Air			
	Central	15	Mont Fleuri			
	Central	16	Plaisance			
	Central	17	Roche Caiman			
	Central	18	Les Mamelles	20	787	2
	Central	19	Ile Perseverance			
	East-South	21	Cascade			
	East-South	22	Pointe Larue	17	1,047	2
MAHE	East-South	23	Anse Aux Pins			
	East-South	24	Anse Royale	27	1,523	3
	East-South	25	Takamaka			
	East-South	26	Au Cap			
	West	31	Baie Lazare			
	West	33	Anse Boileau			
	West	34	Grande Anse Mahe			
	West	35	Port Glaud	18	846	2
	North	41	Belombre	27	1,491	3
	North	42	Beau Vallon			
	North	43	Glacis			
	North	44	Anse Etoile			
PRASLIN	Praslin	51	Grande Anse Praslin	31	1,394	4
	Praslin	52	Baie Ste Anne			
LA DIGUE	La Digue	61	Digue and Inner islands	20	1,171	2
				179	9,273	22

Step 10: Update below table to show number of EA to be sampled from selected districts.

	EA/District
Mont Buxton	2
Les Mamelles	2.5
Pointe Larue	2
Anse Royale	3
Port Glaud	2
Belombre	3
Grande Anse Praslin	4
Digue and Inner islands	2.5

Step 11: Randomly sampling the EA.

	EA/District	FORMULA			
	EA/District	EA Sample 1	EA Sample 2	EA Sample 3	EA Sample 4
Mont Buxton	2	1	3		
Les Mamelles	2.5	18	6	19	
Pointe Larue	2	11	9		
Anse Royale	3	15	23	9	
Port Glaud	2	9	5		
Belombre	3	14	2	16	
Grande Anse Praslin	4	18	14	30	8
Digue and Inner islands	2.5	8	18	13	5

Then copy and pasting them as values in table below.

FIGURES					
	EA/District	EA Sample 1	EA Sample 2	EA Sample 3	EA Sample 4
Mont Buxton	2	15	7		
Les Mamelles	3	2	15	5	
Pointe Larue	2	10	8		
Anse Royale	3	9	14	7	
Port Glaud	2	2	15		
Belombre	3	14	21	3	
Grande Anse Praslin	4	1	5	28	10
Digue and Inner islands	3	9	1	5	

Step 12: Creating table for sampling. From Mont Buxton (MB), serial number 7 and 15 are randomly chosen which are EA 1217 and 1225 respectively.

MONT BUXTON (MB)		
Serial Nur	EA	HHD
1	1211	65
2	1212	60
3	1213	60
4	1214	38
5	1215	25
6	1216	45
7	1217	57
8	1218	54
9	1219	27
10	1220	46
11	1221	57
12	1222	50
13	1223	68
14	1224	68
15	1225	92
16	1226	47
17	1227	65
18	1228	34
19	1229	56
Total		1,014

We then plug it in our table for sampling along with the rest of the districts with their respective EA selected:

Districts Initials	Serial Number	EA	Total number of households
MB	7	1217	57
	15	1225	92
LM	2	1803	21
	5	1806	35
PL	15	1816	34
	8	2217	73
AR	10	2219	35
	7	2421	43
PG	9	2423	42
	14	2433	74
BO	2	3512	42
	15	3525	23
GP	3	4113	74
	14	4132	63
LD	21	4145	60
	Total for Mahe		
GP	1	5111	70
	5	5115	47
	7	5120	75
	8	5121	34
	10	5123	46
	16	5129	39
	26	5139	52
28	5141	67	
Total for Praslin			430
LD	1	6111	39
	2	6112	43
	5	6115	56
	9	6119	51
	19	6133	59
Total for La Digue			248

Here for Praslin and La digue, the number of Households that needed to be selected were exceeding the number of household in the EA, so more EA (darker green) were randomly sampled for them:

FIGURES									
	EA/District	EA Sample 1	EA Sample 2	EA Sample 3	EA Sample 4	EA Sample 5	EA Sample 6	EA Sample 7	EA Sample 8
Mont Buxton	2	15	7						
Les Mamelles	3	2	15	5					
Pointe Larue	2	10	8						
Anse Royale	3	9	14	7					
Port Glaud	2	2	15						
Belombre	3	14	21	3					
Grande Anse Praslin	4	1	5	28	10	8	7	16	26
Digue and Inner islands	3	9	1	5		19	2		

Step 13: Final procedure for sampling households; look for start number and interval.

Districts initials	Serial Number	EA	Total number of households	Total number of households that need to be selected	Process to randomly select households in selected EA		
					Interval	Random	Start Number
MB	7	1217	57	37	1	1	2
	15	1225	92	60	1	0	1
LM	2	1803	21	14	1	0	1
	5	1806	35	23	1	1	2
PL	15	1816	34	22	1	1	1
	8	2217	73	48	1	1	1
AR	10	2219	35	23	1	0	1
	7	2421	43	28	1	0	1
PG	9	2423	42	27	1	0	1
	14	2433	74	48	1	1	1
BO	2	3512	42	27	1	1	2
	15	3525	23	15	1	1	1
GP	3	4113	74	48	1	1	1
	14	4132	63	41	1	0	1
LD	21	4145	60	39	1	1	2
	Total for Mahe			768	500		
GP	1	5111	70	65	1	1	2
	5	5115	47	44	1	0	1
	7	5120	75	70	1	1	1
	8	5121	34	32	1	0	1
	10	5123	46	43	1	1	2
	16	5129	39	36	1	0	1
	26	5139	52	48	1	1	2
Total for Praslin			430	400			
LD	1	6111	39	24	1	1	2
	2	6112	43	26	1	1	1
	5	6115	56	33	1	0	1
	9	6119	51	31	1	0	1
Total for La Digue			248	150			

Appendix 5.5 Data processing

Table 5.1
Regression model showing the effect of socio-demographic variables on the dependent variable 'cultural aspects'.

Variable	Coefficient	p-value
Gender	.088	.092
Age	.000	.922
Education	.098	.019 (*)
District	.098	.126
Residence	.152	.164
Income	-.044	.099
Work in Tourism	.086	.171
Business in Tourism	-.199	.035 (*)
Language	-.052	.385

Appendix Chapter 6

Coordination of food demand and supply between farms, hotels and restaurants

Appendix 6.1 Surveys: Restaurants and Hotels

In collaboration with the Department of Tourism, the Swiss Federal Institute of Technology (ETH) in Zurich is preparing a study on "Sustainable Tourism in Seychelles". Our subgroup is analysing the relationship between the food demand and the food supply between farmers and hotels/restaurants in Seychelles. Our final objective is to find how to coordinate it better and help farmers and also hotels/restaurants. With this survey, we would like to understand the food source (local or imported), quantity, and quality/standards of the hotels and restaurants.

1. Does your hotel/restaurant use food products produced locally?
 - Yes
 - No

2. What is the proportion of the local food used in your hotel/restaurant?
 - We buy locally 100% of our food
 - We buy locally between 75%-100% of our food
 - We buy locally between 50%-75% of our food
 - We buy locally less than 25% of our food
 - We import 100%

If you buy locally, what types of local agricultural products does your hotel/restaurant typically buy? (You can choose more than one)

- We don't import
- Vegetables
- Fruits
- Root crops, such as cassava, sweet potato
- Herbs and spices
- Staple crops, such as rice, wheat
- Seafood, such as fish
- Chicken
- Pork
- Beef
- Eggs
- Dairy products
- other

3. Related to the previous question, can you list 5 produced local vegetables and 5 local fruits your hotel/restaurant uses?

4. If you buy the imported food, what types of imported food does your hotel/restaurant typically buy? (You can choose more than one)
- We don't import
 - Vegetables
 - Fruits
 - Root crops, such as cassava, sweet potato
 - Herbs and spices
 - Staple crops, such as rice, wheat
 - Seafood, such as fish
 - Chicken
 - Pork
 - Beef
 - Eggs
 - Dairy products
 - other
5. Related to the previous question, can you list 5 imported vegetables and 5 imported fruits your hotel/restaurant uses?
6. Does your hotel/restaurant import some food which is also produced locally?
- Yes
 - No
7. If you don't use locally produced food, why? (You can choose more than one)
- Local food is expensive.
 - Some food is not available locally.
 - Local food doesn't meet the quality standards we require.
 - It's hard to collaborate with the local farms.
 - Local farms cannot produce enough quantities of certain products.
 - Other
8. Does your hotel/restaurant have a business collaboration with local farms?
- Yes
 - No
9. If your hotel/restaurant collaborates with local farmers, how many farmers do you collaborate with?
- 1-5
 - 6-10
 - 11-15
 - More than 15
 - We don't have any business collaboration with farmers
10. If we would like to follow up in the future, in which way do you prefer we contact you (email, mobile or other way, please provide also the number/email)?

Appendix 6.2 : Interview for hotels and restaurants

– Overproduction/underproduction issues

1. Do you use any local products?
2. What is the proportion of the local food products bought in your hotel/restaurant?
 - We buy locally 100% of our food
 - We buy locally between 75% - 100% of our food
 - We buy locally between 50% - 75% of our food
 - We buy locally less than 25% of our food
 - We buy 100% imported food
3. Does your hotel/restaurant buy some imported food which is also produced locally? Why?
4. If you don't use locally produced food, why? (You can choose more than one)
 - Local food is expensive.
 - Some food is not available locally.
 - Local food doesn't meet the quality standards we require.
 - It's hard to collaborate with the local farms.
 - Local farms cannot produce enough quantities of certain products.
5. **What products are *underproduced* in your opinion?**
6. **What products are *overproduced* in your opinion?**
7. **Which product has seen a reduction over the years? Do you also know why?**

– Collaboration with farms

8. Does your hotel/restaurant have a business collaboration with local farms?
9. How many farms are you working with?
10. What are the types of these farms? (vegetable, fruit, dairy, open field, high tunnels/greenhouse)
11. How do you collaborate with farms?
12. Option: Do you have a contract/agreement?
 - if not, why?
 - if yes, is it common in Seychelles? Do farmers always respect the contracts?
13. Why do you collaborate with these farms?
 - E.g. high production, high quality, low transportation cost, cheaper
 - other:
14. Do you have some difficulties working with them?
 - E.g. Communication, unstable partnership, do not respect contracts, they cannot provide always the quantities/quality of food agreed
 - Others:
15. Option: Do you have any requirements for food quality?
16. Could you provide the contacts of these farms?

– Working with associations

17. Do you participate in any type of association?
If yes, what is its name? What benefits do you receive?

If no, next question.

– Feedback on our new association

We want to present to you our idea for association. (Present and show the image!)

18. What do you think about this association?
19. Do you think it would be useful for hotels and restaurants? Why?
20. Do you see any problems or challenges?
21. What should we consider/include?
22. What should we change?
23. Do you have any other suggestions?

-- Conclude:

24. So we are at the end of the interview. We thank you very much for helping us and we want to ask you if you have any other comments?
25. Would you like to have the results of our final project? If yes, where should we send it?

Appendix 6.3 : Interview guideline for Farmers

*There may be more than one answer

-- Crop sales questions

1. Your agricultural products are sold to/at/for ()
 local markets and shops
 hotels
 restaurants
 export
 not for sale, eat by yourselves
 other (such as to private clients):
2. Why do you choose to sell your products to these clients in q1 ()
 can sell at a higher price
 more familiar with them
 shorter transport distance and less transportation cost
 other:

-- Crop production questions

3. What are your main agricultural products?
4. How do you control pests? (What kind of pesticides do you use?)
5. How do you control weeds? (by hand/mechanical or by herbicides?)

6. What kind of fertilizers do you use (chemical or organic fertilizer)?
7. Do you get some economic/technical support from the government/companies? (such as insurance, subsidies, technical instructions, and so on)
8. What are your main challenges when you produce your products?
9. What are your main challenges when you sell your products?
10. Have you ever noticed an overproduction of any local product (in some seasons)?
 1. If so, what products are they?
 2. Do you have any idea of the reason for this overproduction (e.g., too much import)?
11. Have you ever noticed an underproduction or a decrease of any local product in the last few years?
 1. If so, what products are they?
 2. Do you have any idea of the reason for this underproduction (e.g., too much import)?

-- Farm association related questions

12. Are you a member of local farm associations? Have you ever joined any activities of local farm associations?
 1. If answered yes,
 1. What kind of services does the association offer?
 2. What kind of activities did you participate in?
 3. Do you think it is helpful?
 4. Would you recommend other farmers to join the association, and why?
 2. If answered no, why don't you join any associations?
 1. there is no farm association, or you don't know about it
 2. there is no association that offers what I am searching for
 3. they don't offer much help
 4. Other:
 3. Are you planning to join an association in the future? Which one?
13. Do you have any collaboration with other farmers? How does it look (e.g., do you help each other in the production, you share knowledge or tools)?

-- New farm association-related questions

We had this idea to try to coordinate better the food supply and food demand. We are currently focussing on just farmers and hotel production alignment, but this can be in the future expanded to more stakeholders. We want to present to you our project and then we will ask you to give us some feedback. So, our idea is... (present the idea and show some images)

1. What do you think about this association?
2. Do you think it would be useful for farmers? Why?
3. Do you see any problems or challenges?
4. What should we consider/include?
5. What should we change?
6. Do you have any other suggestions?

-- Conclude:

So, we are at the end of the interview. We thank you very much for helping us and we want to ask you if you have any other comments. Would you like to have the results of our final project? If yes, where should we send it?

Appendix 6.4: Interview with STC

1. What is the percentage of imported food that you sell? Do you have any data collection that you can share with us?
2. How long in advance do you order your food, before they are available? Two weeks or one month?
3. Are there any regulation that limits or support the imports?
4. What are the taxes on imported goods? How does it work?
5. Where do you get the other local products? How long in advance do you order it?
6. Are you asking farmers or are they asking you to buy their products?
7. If a farmer wants to sell to you, do you have any quality requirements?
8. How do you collaborate with the hotels? Do they ask you to order the food for them, or do they just buy what is available? How does it work exactly?
9. Do you have any contracts with hotels or restaurants?
10. Do you ever have difficulties selling some products? Do you also feel that there is a saturation of the market for some products?
11. Do you have any strategy to avoid competition?
12. What are the price differences between local and imported food? Do you have any records about it that you can share with us?
13. Can you list all your customers? And which proportion of your products do they buy?

Appendix 6.5: Interview with Department of Agriculture

1. Do you recognize that there is overproduction and underproduction?
2. What are the main reasons for overproduction or underproduction?
3. How do you keep track of it?
4. What have you done since now to reduce these two phenomena? Or what are you currently doing or will do in the future?
5. Do you know what the market looks like, the sellers, the consumers, and the producers? And in which percentage flows where? Do you know the different demands of the different consumers/buyers?
6. Where does it go the 3% contribution of the government to the agricultural sector?
7. Do you think that Seychelles should give more attention to the agricultural sector? Why?
8. Do you have any policy regarding food quality?
9. Have you ever thought of implementing any labeling system to give local production some advantage?
10. Do the imports have any restrictions? What are the imports or customs taxes?
11. Do you have any price record of the products and differences between the imported and locally produced?

Appendix Chapter 7 Performance Assessment Tool for Tourism Establishments

Appendix 7.1 Detailed conceptual model of tourism establishment assessment tool and manual

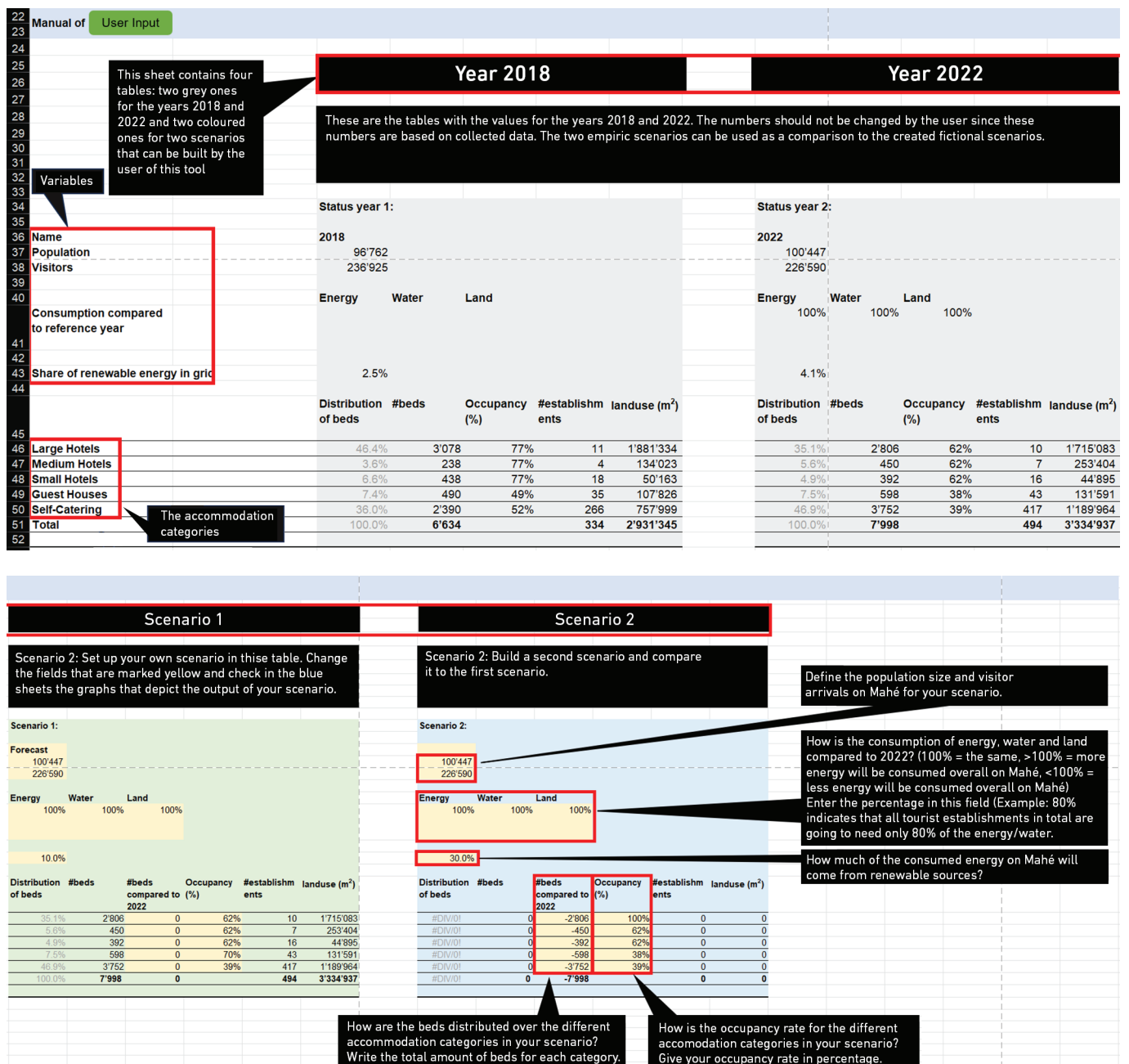


Figure 7.1 This figure shows an excerpt of the manual of the tourism establishment tool in Excel.

Appendix 7.2 Definitions

Table 7.1
Definition of accommodation categories for tourism establishments (TD, 2019).

Category	Definition
Self-Catering	"Self-Catering establishment means an accommodation establishment that provides lodging or sleeping accommodation to the public for hire, the rate of which is calculated on daily basis, or for reward of any kind whatsoever, in which the facilities and equipment are provided for guests or clients to cook or prepare their own meals"
Guest House	"Guest House means an accommodation establishment that provides lodging or sleeping accommodation with or without food and drink to the public for hire, the rate of which is calculated on a daily basis, or for reward of any kind whatsoever, in which the common facilities are for the exclusive use of its Guests."
Hotel	"Hotel means an accommodation establishment containing several rooms or suites, supplemented by one or more separate buildings that provides lodging or sleeping accommodation and ancillary food and beverage areas, includes a reception area, to the public for hire, the rate of which is calculated on a daily basis or for reward of any kind whatsoever."
	Small Hotel: 1–24 rooms Medium Hotel: 25–50 rooms Large Hotel: 51 rooms and above

Table 7.2
Own definition of sustainability parameters.

Parameter	Definition
Energy consumption	Annual electricity consumption in kWh consumed from the communal grid. If establishments produce their own electricity with their own solar systems, this can only be reflected in a lower electricity consumption. The electricity produced is fed into the grid and is taken into account as negative consumption. The net electricity consumption was divided by total number of occupied beds. Gas for cooking or other applications is not included.
Water consumption	Annual use of water in m ³ consumed from the communal water resource infrastructure, per occupied bed. Water from rainwater harvesting is not included, as no data could be collected on this.
Land use	Parcel of the accommodation establishment, divided per total number of beds.
Average employment	Total number of employees for one year divided by the total number of beds.
Revenue	BTR of accommodation categories per year divided per total number of beds.

Appendix 7.3 Data Examples1. Does your hotel/restaurant use food products produced locally?

Table 7.3

Data example of the accommodations and its attributes given by TD.

Accommodation category	ID	Establishment	Manager	Tel	Beds	Address
Large Hotels	266	Four Seasons Resort	MENDES Alda (Mrs)	4393000	134	Petite Anse
Small Hotels	550	Petit Amour Villa	PERKINS John (Mr)	2577282 / 2578039	8	Sorento
Guest House	6	A Peace in Paradise Villa (Ex Brise De Mer Villa)	POOL Bernardette Erade (Miss)	2631351	2	Anse la Mouche
Medium Hotels	433	L'Escale Resort marina and Spa	CAROFANO Cyril (Mr)	4675555/2516175	50	Roche Caiman

Table 7.4

Data example of the billing accounts and its attributes given by PUC. Table 7.4 shows an example excerpt from the data given by PUC. Some establishments are listed several times, as there is a water and an electricity meter monitoring the usage. In some cases, establishments also have several meters for water or energy, as the "Four Seasons Resort", which has two meters for electricity and another one for water. For some establishments, only one customer account is listed, as for "Petit Amour Villa", where only a water meter can be linked to the establishment and no electricity meter can be identified.

Customer account	Name	Mobile	Telephone	Address	City	District
CUS-XXXXXX	FOUR SEASON RESORT & RESIDENCE		2510256	P.O.BOX 1397	VICTORIA	MAHÉ SEYCHELLES
CUS-XXXXXX	FOUR SEASONS RESORT		2510256	C/O MR. PATRICK VAN PEE	P.O. BOX 1397	VICTORIA
CUS-XXXXXX	FOUR SEASONS RESORTS		2510256	ATTN. MR. GARY BOTH	P/O BOX 2060 - A.A.PINS	MAHÉ
CUS-XXXXXX	MR MICHEL BENOIT	2577282		PETIT AMOUR VILLA	P.O BOX 1092	VICTORIA
CUS-XXXXXX	ERADE POOL			ANSE LA MOUCHE	MAHÉ	
CUS-XXXXXX	ERADE POOL			ANSE LA MOUCHE	MAHÉ	
CUS-XXXXXX	BLUE WATER HOLDING SEY LTD	2614919		ROCHE CAIMAN, WHARF RESIDENCE & MARINA	MAHÉ	
CUS-XXXXXX	BLUE WATER HOLDINGS (SEY) LTD (MARINA)	2614919		ROCHE CAIMAN, PO BOX 1150, VICTORIA	MAHÉ	

Table 7.5

Data example of the SLA names and its attributes. 7.5 shows an example excerpt of the data given by the SLA. In some cases, the business name matches the establishment name given by TD. The licensing name itself might in some cases correspond to the trade name, which is also used from other authorities, such as the SRC or the Registration Office. However, as there could not be any data obtained, this cannot be verified.

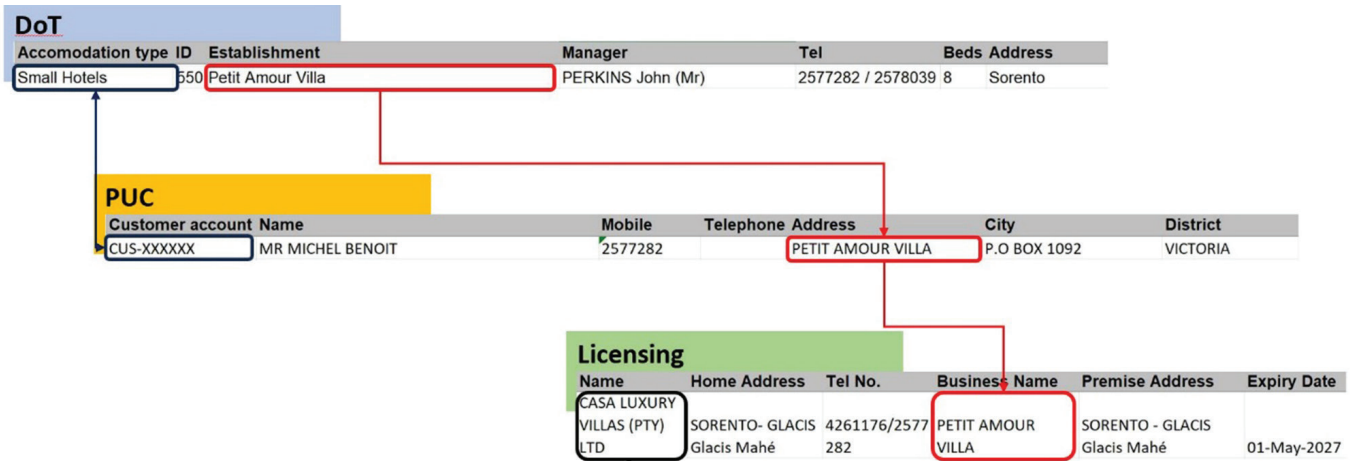
Name	Home Address	Tel No.	Business Name	Premise Address	Expiry Date
BLUEWATER HOLDINGS (SEYCHELLES) LTD	ROCHE CAIMAN Roche Caiman Mahé	4410169 / 2516175 / 2781423	L'ESCALE RESORT	ROCHE CAIMAN Roche Caiman Mahé	28 Octobre 2025
FS (SEYCHELLES) MANAGEMENT LIMITED	PETIT ANSE, BAIE LAZARE Baie Lazare Mahé	4393055 / 2617436 / 4393000	FOUR SEASONS RESORT (SEYCHELLES)	PETITE ANSE Baie Lazare Mahé	03 February 2027
CASA LUXURY VILLAS (PTY) LTD	SORENTO- GLACIS Glacis Mahé	4261176 / 2577282	PETIT AMOUR VILLA	SORENTO - GLACIS Glacis Mahé	01 May 2027
Erade, Bernardette POOL	ANSE LA MOUCHE Baie Lazare Mahé	2746359	A PEACE IN PARADISE	ANSE LA MOUCHE	08 August 2023

Appendix 7.4 Data Matching

In the following chapters, some cases for the matching process are explained. This includes a best case, where the matching could be facilitated relatively easy, a manager name case, where the establishment could only be matched by knowing the manager name, a spelling case, where the spelling differed and there was a need for manual matching and a licensing name case, where the matching was only possible through information given by SLA.

Data Matching – Best Case

In the best case, the establishment name from TD matches the billing name from PUC and therefore the customer number can be matched easily to the accommodation category and establishment name. Figure 7.2 shows an example of this case.

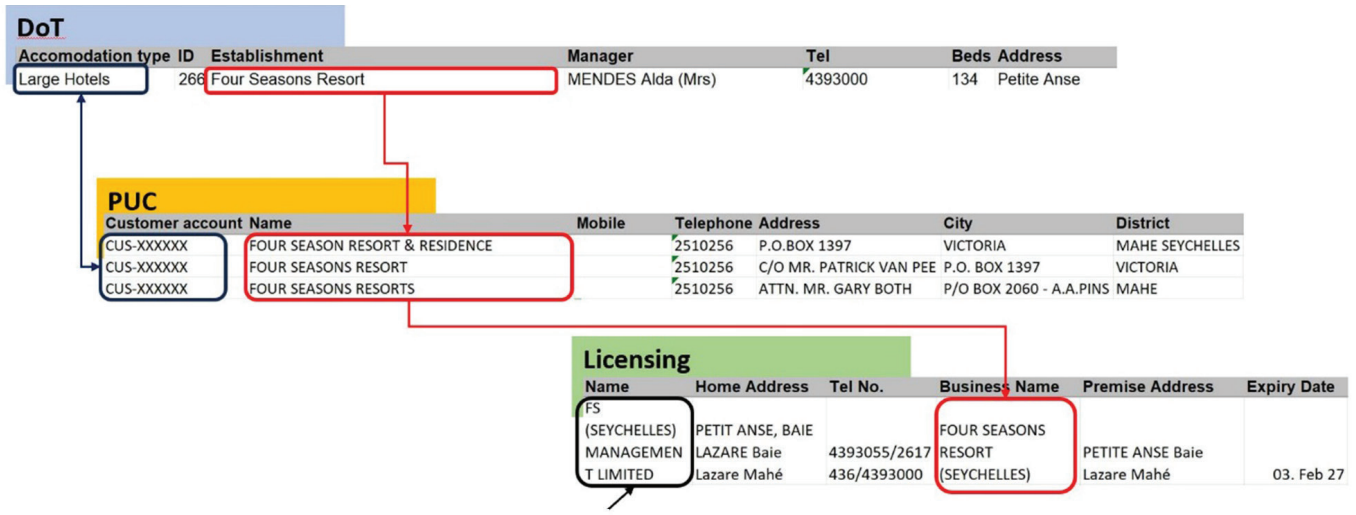


Licensing name ≈ tax name/revenue name?

Figure 7.2 Example for the matching process in the best case.

Data Matching – Spelling Case

In some cases, the establishment name given by TD does not match all the customer account names given by PUC exactly. Figure 7.3 shows an example of this matching process. The cus-tomer account names had to be matched and verified manually in order to include all the cus-tomer numbers corresponding to the establishment.

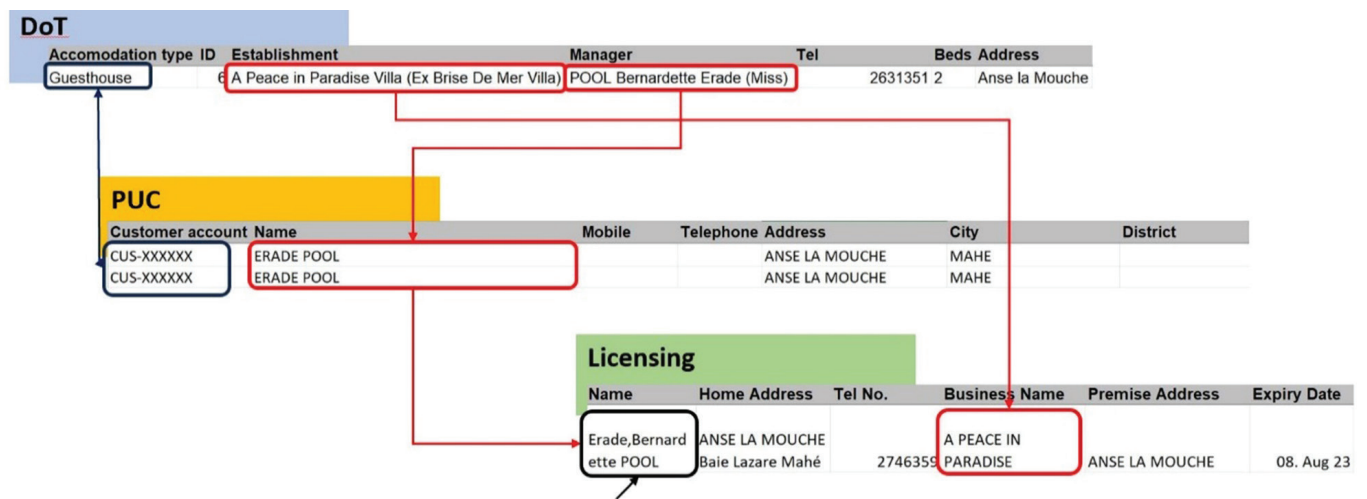


Licensing name ≈ tax name/revenue name?

Figure 7.3 Example for the matching process when the establishment name does not exactly match the spelling used for the billing of PUC.

Data Matching – Manager Name Case

In other cases, the establishment name cannot be matched to a corresponding customer account name from PUC, but the manager's name can. Figure 7.4 shows an example of this matching process. Another workaround can be to look for the establishment name given by the SLA, which would also link to the correct manager's name used for billing by PUC:



Licensing name ≈ tax name/revenue name?

Figure 7.4 Example for the matching process if the manager's name can be matched with the customer account name.

Data Matching – Licensing Name Case

In difficult cases, neither the establishment name, nor the manager’s name given by TD can be matched to a customer account name given by PUC. Figure 7.5 shows an example of this particular case. The business name, given by the SLA, indicates to the licensing name, which is assumed to be the trade name. This trade name can then be linked to the customer account name from PUC. Having this link, allows to link the customer numbers to the corresponding accommodation category. However, the trade name spelling does not match the customer account name exactly, thus manual linking is still necessary.

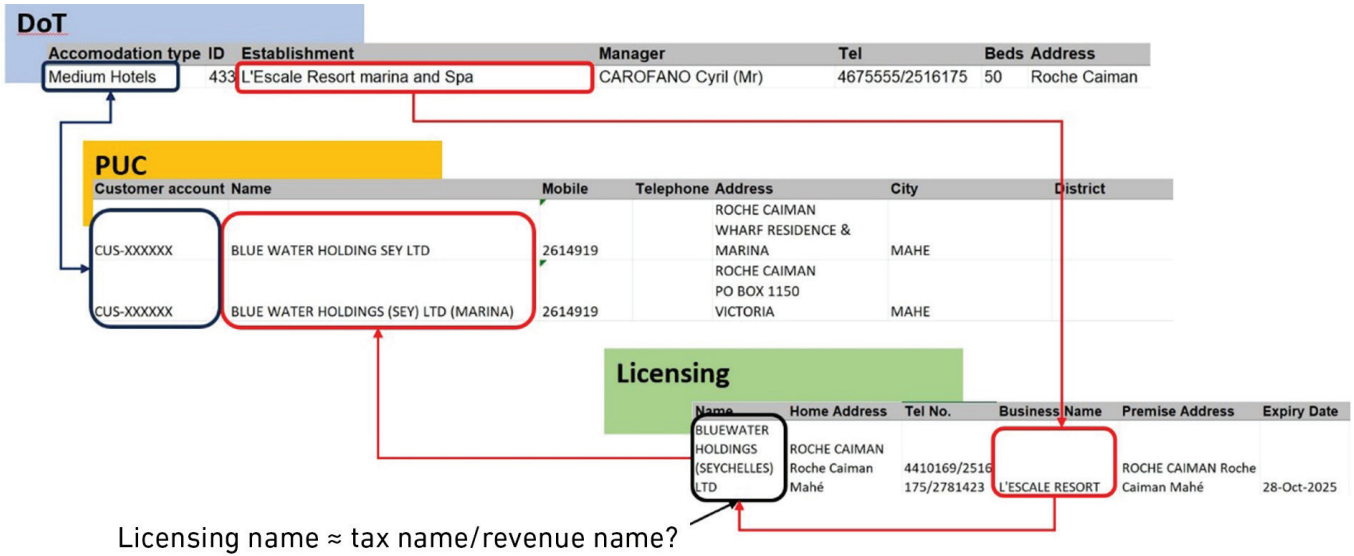


Figure 7.5 Example for the matching process if the match can only be facilitated with the information given by the SLA.

Appendix 7.5 Results of assessment with and without SSTL and with and without occupancy

In the following chapters, some cases for the matching process are explained. This includes a best case, where the matching could be facilitated relatively easy, a manager name case, where the establishment could only be matched by knowing the manager name, a spelling case, where the spelling differed and there was a need for manual matching and a licensing name case, where the matching was only possible through information given by SLA.

Data Matching – Best Case

In the best case, the establishment name from TD matches the billing name from PUC and therefore the customer number can be matched easily to the accommodation category and establishment name. Figure 7.2 shows an example of this case.

Data Matching – Spelling Case

In some cases, the establishment name given by TD does not match all the customer account names given by PUC exactly. Figure 7.3 shows an example of this matching process. The customer account names had to be matched and verified manually in order to include all the customer numbers corresponding to the establishment.

Table 7.6

Results of water and energy usage for 2018 and 2022 classified for establishments certified with SSTL and without SSTL.

Water consumption (m ³ / (year*occ. bed))										
	2018					2022				
	Self-Catering	Guest House	Small Hotels	Medium Hotels	Large Hotels	Self-Catering	Guest House	Small Hotels	Medium Hotels	Large Hotels
With SSTL	0	N/A	N/A	630	239	10	N/A	N/A	729	294
Without SSTL	232	110	115	19	246	352	111	195	141	423

Energy (kWh / (year*occ. bed))										
	2018					2022				
	Self-Catering	Guest House	Small Hotels	Medium Hotels	Large Hotels	Self-Catering	Guest House	Small Hotels	Medium Hotels	Large Hotels
With SSTL	N/A	N/A	N/A	51'977	8'421	N/A	N/A	N/A	62'433	9'266
Without SSTL	3'198	3'067	7'411	5'148	19'457	4'056	4'053	8'199	26'016	18'023

Table 7.7

Results of the parameters water consumption, energy consumption, land use, revenue and employment as well as occupancy rates for the years 2018 and 2022. The results are calculated without the occupancy rates.

Parameter	Year	Self-Catering	Guest Houses	Small Hotels	Medium Hotels	Large Hotels
Water consumption [m ³ /(year*bed)]	2018	116	54	89	328	186
	2022	132	42	121	270	212
Energy consumption [kWh/(year*bed)]	2018	1,663	1,503	5,706	21,993	10,126
	2022	1,582	1,540	5,083	23,656	8,072
Land use [m ² /bed]	–	611	563	115	220	317
Revenue BTR [SCR/(year*bed)]	2018	21,910	59,381	267,145	532,265	1,052,807
Employment [employment/(year*bed)]	2018	0.08	0.19	0.33	0.72	1.19

Table 7.8

Results of the parameters water consumption, energy consumption and revenue per occupied bed and year. Occupancy rates for the years 2018 and 2022.

Parameter	Year	Self-Catering	Guest Houses	Small Hotels	Medium Hotels	Large Hotels
Water consumption [m ³ /(year*bed)]	2018	222	110	115	426	242
	2022	340	111	195	435	342
Energy consumption [kWh/(year*bed)]	2018	3,198	3,067	7,411	28,563	13,151
	2022	4,056	4,053	8,199	38,155	13,019
Revenue BTR [SCR/(year*bed)]	2018	56,179	156,265	430,879	858,492	1,69,076
Occupancy [employment/(year*bed)]	2018	52%	49%	77%	77%	77%
	2022	39%	38%	62%	62%	62%

Appendix 7.6 Data Statistics9

Table 7.3
Standard deviation of the samples by accommodation category and resource.

Accommodation category	Water [m ³ /bed*year]		Land use [kWh/bed*year]		Land use [m ³]
	2018	2022	2018	2022	
Self-Catering	181	318	1,278	1,487	350
Guest Houses	45	31	856	1,060	310
Small Hotels	68	117	3,185	3,563	66
Medium Hotels	405	306	25,497	17,881	499
Large Hotels	102	97	6,091	5,421	762

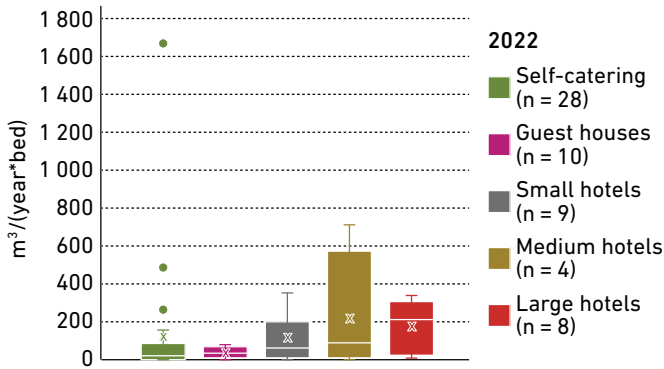


Figure 7.6
Boxplot of water usage per bed and year for the year of 2022. The box in the plot represents the IQR, which encompasses the middle 50% of the data. The bottom edge of the box represents the 25th percentile (Q1), while the top edge represents the 75th percentile (Q3). The line inside the box represents the median, which is the middle value of the dataset. The cross represents the average value of the distribution. Whiskers extend from the box to indicate the range of the data and represent 1.5 times the IQR. Outliers are shown as individual points.

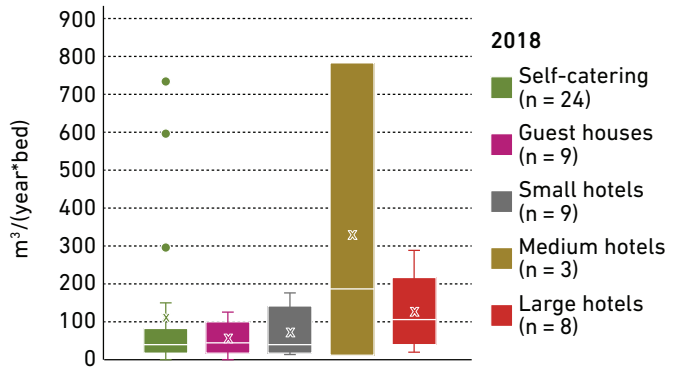


Figure 7.7
Boxplot of energy usage per bed and year for the year of 2018. The box in the plot represents the IQR, which encompasses the middle 50% of the data. The bottom edge of the box represents the 25th percentile (Q1), while the top edge represents the 75th percentile (Q3). The line inside the box represents the median, which is the middle value of the dataset. The cross represents the average value of the distribution. Whiskers extend from the box to indicate the range of the data and represent 1.5 times the IQR. Outliers are shown as individual points.

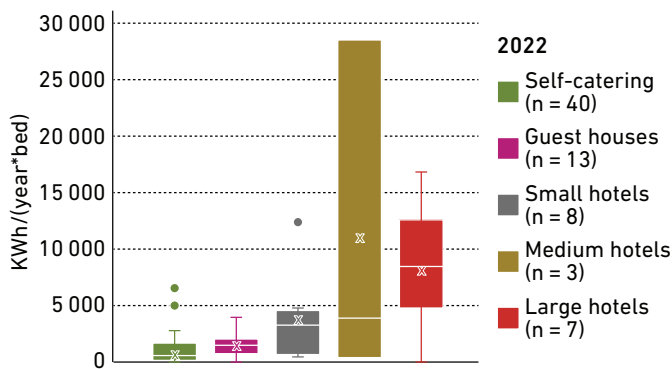


Figure 7.8
Boxplot of energy usage per bed and year for the year of 2022. The box in the plot represents the IQR, which encompasses the middle 50% of the data. The bottom edge of the box represents the 25th percentile (Q1), while the top edge represents the 75th percentile (Q3). The line inside the box represents the median, which is the middle value of the dataset. The cross represents the average value of the distribution. Whiskers extend from the box to indicate the range of the data and represent 1.5 times the IQR. Outliers are shown as individual points.

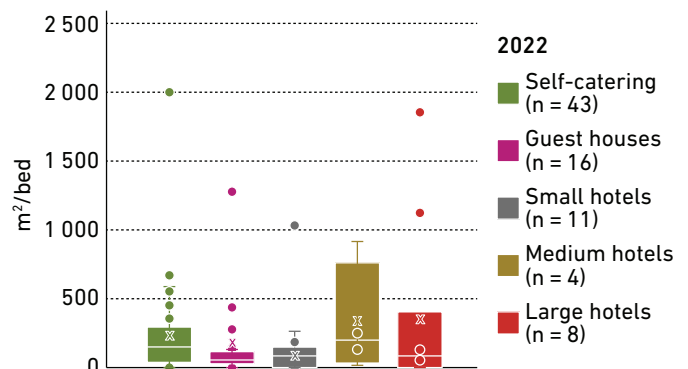


Figure 7.9
Boxplot of land use per bed. The box in the plot represents the IQR, which encompasses the middle 50% of the data. The bottom edge of the box represents the 25th percentile (Q1), while the top edge represents the 75th percentile (Q3). The line inside the box represents the median, which is the middle value of the dataset. The cross represents the average value of the distribution. Whiskers extend from the box to indicate the range of the data and represent 1.5 times the IQR. Outliers are shown as individual points.

TdLab's transdisciplinary Case Study 2023

This is the fourth in a series of transdisciplinary case studies (tdCS) in the Seychelles. Following studies on waste management and transport, the focus is now on tourism (see: <https://tdlab.usys.ethz.ch/livlabs/seychelles.html>). Tourism is an important economic pillar of the Seychelles. It accounts for more than 20% of the country's GDP, 27% of jobs and is an important source of foreign exchange earnings. After a decade of steep growth in tourist arrivals with a growth of 10% per year and a peak of 380,000 arrivals in 2019, the Seychelles authorities are rethinking their strategy, which was also triggered by the dramatic decline during the SARS-CoV-2 pandemic. The new tourism masterplan envisages that arrivals will not increase as before, but that the sector will simultaneously generate more revenue per capita through a strategy of diversification.

Against this background and taking into account the findings of the country's strategic plan from 2015, this case study analysed various facets of the Seychelles' tourism sector from a sustainability perspective.

The overarching theme 'rethinking the sustainability of tourism in the Seychelles' was worked on in seven modules (groups) in order to obtain a comprehensive and in-depth picture of the topic: Socio-cultural and environmental sustainability of beach tourism; the potential and challenges of three diversification portfolios, namely cultural tourism, agri-tourism and adventure tourism; the impacts of tourism on the socio-cultural system; the supply and demand link between the agriculture and the tourism sectors; and the sustainability performance of future tourism strategies (assessment tool).

The methods employed varied across groups and included literature reviews, semi-structured interviews, surveys, stakeholder workshops, environmental sampling, modelling, theory of change.

The study shows that beach users are generally satisfied with the facilities (e.g. sea view, access to the beaches). Respondents have concerns about security (theft), lack of facilities (e.g. toilets, rubbish bins) and littering. Cultural, agricultural and adventure tourism are environmentally friendly niches which, if properly managed, can complement beach tourism and at the same time create jobs and income. There is a rich cultural heritage that is not yet being utilised. Adventure tourism, such as hiking or canyoning, are non-invasive forms of tourism that attract the interest of tourists.

An important question in this study concerns the impact of tourism on the local population. The results of a representative survey of the local population show a fairly positive picture. The locals surveyed are very tolerant of tourism and are generally satisfied with the current situation. They see the potential for the economic sector, the jobs created and even the positive impact on nature conservation as positive aspects of tourism. On the negative side, the locals see tourism as a driver of the rising costs of living. Another concern and latent conflict is that the locals are kept away from some beaches by hotel owners.

There are opportunities to make tourism in the Seychelles more sustainable. Existing offers can be improved; new niche markets can take the pressure off beach tourism and open up entrepreneurial opportunities. Nevertheless, it remains a challenge to balance the three pillars of sustainability: The system is small and fragile, the interests of those involved are diverse, and the path dependency of the chosen path does not allow for quick corrections. Progress can only be made if the private sector and all relevant public institutions communicate and coordinate their efforts and the various stakeholders are involved.

The case study involved 25 ETH Zurich master's students with diverse scientific backgrounds and five bachelor's students at the University of Seychelles. The research was conducted over six months, including a three-weeks field phase in the Seychelles. Researchers and teachers guided the students throughout the case study, complemented by the additional support of a panel of local experts. The students intensively engaged with numerous stakeholders from the government, public administration, the private sector, and civil society.

This problem-oriented and research-based teaching course is part of a collaboration agreement between the TdLab at the ETH Zurich Department of Environmental Systems Science, the University of Seychelles, the Tourism Department of the Seychelles' Ministry of Foreign Affairs and Tourism, and the Ministry of Agriculture, Climate Change and Environment.

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