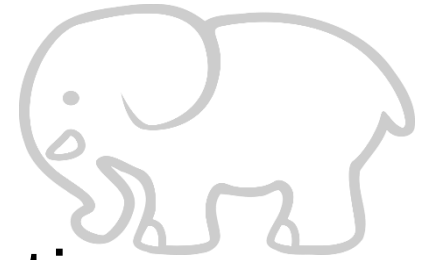




Pilot Study Report



Global Dialogue on Ocean Accounting
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Samoa Tourism Satellite Accounts SAMOA



Global Ocean
Accounts Partnership



System of
Environmental
Economic
Accounting

1. The policy Context for the Pilot TSA

The country:

- ❑ Samoa is a Small Island Developing State (SIDS) situated in the middle (-13.69, -171.85) of the Pacific Ocean. Land area is 2,820 km² and an EEZ of 98,500 km² the smallest in the Pacific. In 2018, the population was estimated to be 197,731, Gross Domestic Product was SAT \$2.156 billion equivalent to SAT \$10,906 per capita or \$4,115 USD dollars placing Samoa as a developing country.
- ❑ Real Income has been increasing over the last decade as a result of higher real growth rate averaging 1.4% compared to a population increase of less than 1 percent. In the last 5 years, nominal GDP has increased at an average rate of 4.1% compared to a population growth rate of 0.8 percent.

1. The policy Context for the Pilot TSA Cont.

The importance of the ocean:

- ❑ The Ocean plays an important role in both social and economic context with over 75% of the population residing within 2 kms from the ocean. The ocean support both subsistence and commercial incomes with the highest export commodity in 2018 being Fish 29.5% of total exports.
- ❑ The ocean vital for the Tourism Industry one of two highest foreign exchange earner along with Private Remittance. In 2018, Remittance registered SAT \$525.7 million, 24.4% of GDP and Tourism Earnings was estimated at SAT \$493.85 million or 22.9% of Gross Domestic Product.

1. The policy Context for the Pilot TSA Cont.

Concerns:

- ❑ Samoa Scoping Report showed Fish Exports increased sharply from SAT \$8.2 million in 2013 to \$32.4 million tala in 2018. The rapid increase in fish produce mirrors the mid 1990's when the fishing industry first took off in Samoa before declining sharply a decade later as a result of over-fishing.
- ❑ The recent increase in fishing activities is attributed to offshore fishing licenses. Incorporating the SEEA framework in relation to Oceans and the Fisheries Industry would greatly improve the management of the fishery resources.

1. The policy Context for the Pilot TSA Cont.

Other Concerns:

- Marine Spatial Planning, National Ocean Strategy development & Monitoring.
- Strengthening monitoring of national and sector development indicators.
- Monitoring the Impact of the Plastic Ban in Samoa.
- Tourism Satellite Accounts and measuring sustainable tourism development.
- Monitoring Sediment build up in rivers and linkages to flooding.
- Monitoring the impact of reclamation work on mangroves and how this impact affects oceans.
- Coral bleaching and crown of thorns damaging reefs.
- Monitoring Illegal land dumping that ends up in rivers and ultimately into the oceans and illegal dumping directly into the oceans.
- Monitoring water levels and salinity.
- Monitoring compliance with Fishing Laws and Regulations.
- Process that brings together multiple users of the oceans such as energy, industry, conservation, recreation and government. Provides for informed and coordinated decisions on how marine resources are utilized sustainably.



1. The policy Context for the Pilot TSA Cont.

The Scoping Study Report presents 3 possible pilot projects for consideration.

- Sustainable Development of the Tourism Industry (initial stage is the development of a Tourism Satellite Account (TSA)).
- Marine Spatial Planning, National Ocean Strategy development and Monitoring.
- Strengthening monitoring of national and sector development indicators.

In conclusion: focusing on sustainable development of the tourism industry appears the favored option by the national stakeholders consulted. Developing an experimental TSA and testing estimates regarding tourism sector resource issues to other accounts such as water, energy use and waste generation.

2. Scoping the pilot

TSA Key Data Sources and gaps

- Arrivals: The number and different type of arrivals based on purpose of travel are collected by SBS based on Immigration Arrival Cards. The arrival cards provide datasets on: “Country of Citizenship”, “Number of Arrivals” and “Purpose of Visit” tabulated on a monthly basis.
- International Visitors Survey: This (IVS) is conducted by STA every 5 years and produces “*Length of stay*”, “*Amount Spent*” and breakdown of “*Main Expenditure Type*” whilst visiting Samoa.
- Tourism Earnings: Tourism Earnings are compiled by the Central Bank of Samoa. This is based on estimates of arrivals captured from arrival cards collected by the Samoa Bureau of Statistics by Country and compiled by CBS using a Tourism Price Index.
- Types such as Holiday*
- Includes Accommodation, Transport and so forth*
- Differentiates between different countries expenditure patterns*

2. Scoping the pilot Cont.

TSA Key Data Sources: (and gaps)

- An estimate of average tourist spending (ATS) is based on the average number of days spent in Samoa multiplied by the average daily spending per tourist. The ATS is used to calculate the estimate for tourism earning by multiplying directly with the number of Arrivals.
- Tourism Earnings = Summation of Number of Arrivals* Average tourist spending per day (ATS) for each country*
- The ATS benchmark is obtained from the Visitor Expenditure Survey (VES). Between VES, the ATS amount is adjusted for inflation with the explicit assumption that tourist spending patterns are not altered with minor inflationary changes.
- The Tourism industry is cross cutting and not featured as a specific industry in the SNA and National Accounts estimates. The linkages between the Tourism industry and other Industries are thus not captured in the routine data collection and compilation undertaken by the Samoa Bureau of Statistics and Central Bank of Samoa.

2. Scoping the pilot Cont.

TSA Key Data Sources cont.

- Number of Persons Employed and Wages by Industry.
- GDP Estimates by Industry.

TSA Key Data Gaps:

- Tourism Expenditure by Product and Type of Tourist. Tourism-Characteristics Products and Tourism-Related Products
- Sales by Product and Industry based on Tourism-Characteristics Products and Tourism-Related Products
- Tourism Gross Fixed Capital Formation by Industry

2. Scoping the pilot Cont.

Alternatives Discussed for the Pilot:

- Marine Spatial Planning, National Ocean Strategy development & Monitoring.
- Strengthening monitoring of national and sector development indicators.
- Monitoring the Impact of the Plastic Ban in Samoa.
- Tourism Satellite Accounts and measuring sustainable tourism development.
- Monitoring Sediment build up in rivers and linkages to flooding.
- Monitoring the impact of reclamation work on mangroves and how this impact affects oceans.
- Coral bleaching and crown of thorns damaging reefs.
- Monitoring Illegal land dumping that ends up in rivers and ultimately into the oceans and illegal dumping directly into the oceans.
- Monitoring water levels and salinity.
- Monitoring compliance with Fishing Laws and Regulations.

2. Scoping the pilot Cont.

The main gaps identified relates to key Statistical datasets and Legislations. These include:

- Overall Stock of Marine Resources.
- Population Density and Distribution of Specific Species including threatened/vulnerable species and invasive marine species.
- Transactions datasets between Oceans and other Accounts such as Water, Energy and Waste Accounts, Tourism Satellite Accounts.
- Overarching policy and framework on Oceans including seabed mining.

2. Scoping the pilot Cont.

The Scoping Study Report presents 3 possible pilot projects for consideration:

- Sustainable Development of the Tourism Industry (initial stage is the development of a Tourism Satellite Account (TSA)).
- Marine Spatial Planning, National Ocean Strategy development and Monitoring.
- Strengthening monitoring of national and sector development indicators.

The choice of pilot focus:

Develop Tourism Satellite Account (TSA) with specific focus on:

1. Linkages between TSA and National Accounts
2. Linkages between TSA and Other key accounts with initial focus on Water and Energy with Electricity being the initial focus

The reason for choosing the pilot focus:

- Importance of the Tourism Industry to the Samoan Economy
- Data availability
- TSA could be developed within the given timeframe and resources and
- Willingness of key Implementing Agencies to contribute

3. Pilot design

Main considerations for design for the pilot TSA

- ❑ Develop the TSA pilot study based on best practice with a view that it would be expanded fully into a comprehensive TSA that would measure both tourism industry GDP contribution as well as attributes to other key assets such as Water, Waste, Energy, and Land usage.
- ❑ The overall methodology was guided by 2 key factors namely, available timeframe and financial resources.
- ❑ The adopted methodology is based on international best practices and utilizes key administrative datasets readily available and collected as part of the existing Samoa Statistical data collection mechanisms.
- ❑ The TSA key dataset on Tourism Expenditure by Type of Product and Type of Tourist was collected from the Samoa TSA Indicator Survey conducted by the TA for 2018.
- ❑ The main approach to calculating Gross Domestic Product in Samoa is the Production approach based on value added generated by each Industry using the 2008 System of National Accounts. The TSA adopted methodology was to use the UN “2008 Tourism Satellite Account Recommended Methodological Framework” This is in harmony with the basic system of concepts, classifications, definitions, tables and aggregates of the System of National Accounts 2008 (SNA 2008), the international standard for a systematic summary of national economic activity, from a functional perspective.

3. Pilot design Cont.

Main considerations for design of the pilot

- ❑ The approach was to measure the value-added contributions for industries that are directly related to the Tourism Industry. This is structured according to **Tourism – Characteristic products namely:** *Accommodation Services; Food Serving Services; Beverage Serving Services; Land Transport Services of Passengers; Water Transport Services of Passengers; Air Transport Services of Passengers; Travel Agencies and Other Reservation Services; Leasing or Rental Services concerning Cars and Light Vans without Operator and Recreational, Cultural and Sporting Services.*
- ❑ This was split according to Tourism Demand and Non-Tourism demand. The aggregate/sum of both are aligned with current GDP estimates for these respective industries were appropriate. **Tourism Related Products includes:** *Retail Sales, Retail services are further disaggregated according to Food, Beverage & Tobacco, Wearing Apparel including “Elei”, Fuel, Handicrafts and Others such as Jewelries, Sporting Goods and so forth.*
- ❑ Furthermore, Tourism Demand is further split according to Domestic and International Demand. Domestic demand is disaggregated according to Household, Government and Business demand.
- ❑ *There are 3 Main Approaches to calculating GDP, Production, Expenditure and Income.*

3. Pilot design Cont.

Key Stakeholder requirements for the TSA were:

- Utilize existing data collection mechanism within SBS, STA and CBS.
- Link to TSA development efforts within SBS and STA.

Data availability:

1. National Accounts linkages. - Most data are readily available. Key missing dataset is the TSA Indicator Survey covering demand and supply for Tourism-Characteristics Products and Tourism-Related Products. A sample of 58 main Tourism related Industries were surveyed as part of the pilot study.
2. Linkages to Other Accounts. - Major data gaps especially in terms of Waste, Land Use and Energy Accounts.

Existing work:

- Completed TSA national accounts tables.
- Completed estimates for TSA linkages to Water Accounts.

3. Pilot design Cont.

Technical capacity:

- Certain capacity exists within Samoa Bureau of Statistics.
- Needs further trainings for key counterpart staff.

Time available: Sufficient to complete the Pilot Study with the limitation to linkages to other accounts namely Water Accounts and Electricity subcomponent for Energy Accounts.

Research Question: The TSA Indicator Survey Questionnaire on demand for Tourism-characteristics products and Tourism-related products.

Interviews with major Tourism related enterprises on type of tourist utilizing their services and purchasing their products.

3. Pilot design Cont.

Definitions

International tourist

- An international tourist is defined for this purpose as a person who travels to a country other than that in which they have their usual residence, and outside their usual environment. While travelling, they do not stay in any one place for more than 12 months.

Domestic tourist

- Domestic tourists are Samoan residents who travel within Samoa but outside their usual environment. While travelling they do not stay in any one place for more than 12 months. There are 3 different categories of domestic tourists:
- A **household tourist** is one whose purpose of visiting is other than the carrying out of a business activity.
- A **government traveler** is an employee of a central or local government sector enterprise whose purpose of travel is to carry out an official activity and whose expenses are met either in full or in part by the central or local government.
- A **business traveler** is an employee of a private sector enterprise whose purpose of travel is to carry out a business activity and whose expenses are met either in full or in part by their employer.

3. Pilot design Cont.

The following types of persons are not considered tourists:

- Persons such as travelling salespersons for whom travel is an intrinsic part of their job
- Persons who travel for the purpose of being admitted to, or detained in, a residential facility, such as hospital, prison or long-stay care
- Persons travelling as part of a shift to a new permanent location
- Persons undertaking military duties
- Persons travelling between two types of their usual environment.
- Samoa's TSA covers only tourists who travel to or within Samoa. These are classified as either International or Domestic Tourists.

3. Pilot design Cont.

Specific Data sources:

- TSA Indicator Survey
- Interviews with key Enterprises to collect tentative indicators on:
 - ✓ Percentage of Customers that are classified as Tourist
 - ✓ Usage of Tourism related products and
 - ✓ Enterprises Usages of Water, Energy, Waste and Land.
- Tourist Arrival and Expenditure.
- VAGST Sales and Expenditure by Industry.
- National Account GDP Estimates by Industry.
- Employment data on Persons employed and Wages by Gender and by Industry and
- Capital Formation Estimates based on 2015 Business Activity Survey extrapolated to 2018 using changes to VAGST Sales.

3. Pilot design Cont.

Specific Data sources:

- Samoa Shipping Services data
- Airline Data
- Water Supply and Use by Household, Government and Private Sector. Private Sector further split by Industry where available.
- Government Budget Estimates and Government Finance Statistics
- Electricity Generation/Sales by Household, Government and Private Sector. Private Sector further split by Industry where available.

4. Activities undertaken

Activities undertaken in implementing the pilot TSA:

- Establishment of working group comprising of respective Implementing Agencies and coordinated by the MNRE through the Environment Sector Coordination Committee. Other potential IA's include Samoa Tourism Authority (STA), Ministry of Agriculture & Fisheries (MAF), Ministry of Works, Transport & Infrastructure and Ministry of Foreign Affairs and Trade (MFAT). **(Correct me on this in case I miss other IAs please)**
- Conduct Desk Research on available statistics, available detailed survey and administrative data sets, collection modalities.
- Conduct Interviews with key stakeholders and Consultations with key private sector actors.
- Design and Conduct a TSA Indicator Survey to collect key datasets on Tourism Demand and Supply.
- Collect detailed and published Datasets from relevant Agencies.
- Regroup detailed dataset as needed.
- Analyse results and compile accordingly.

5. Pilot Results - Tables

Linkages to National Accounts

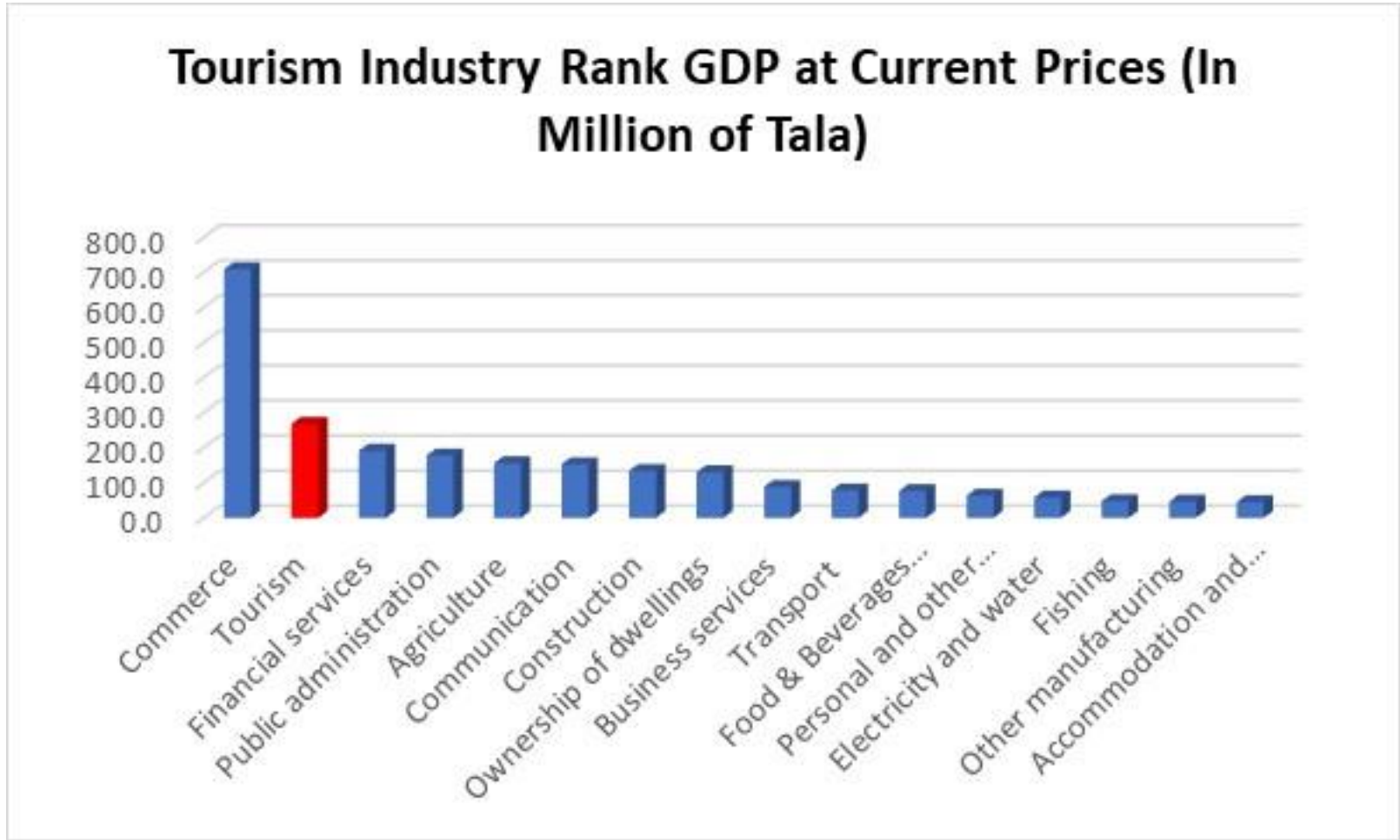
Direct Tourism Impact								
	Tourism Expenditure (SAT Million)	GDP (SAT Million)	Direct Tourism Value Added (SAT Million)	Percentage of Direct Tourism Contribution to GDP	Total Persons formally Employed	Direct Tourism Employment	Percentage of Direct Tourism Contribution to Formal Employment	Tourism Capital Formation (SAT Million)
Key Indicators	\$ 493.85	\$ 2,156.41	\$ 268.23	12.4%	24,346	5,245	21.5%	\$ 63.75

Linkages to Water Accounts & Electricity

Direct Tourism Impact						
	FY 2016-2017 Total Value of Water (SAT Million)	2017 Value of Water Used by Tourism	Percentage of Water Costs Used by Tourism	Total Electricity Sales in 2018 (MWh)	Electricity Sales to Tourism Industry in	Electricity Sales to Tourism Industry 2018
Key Indicators	\$ 18.52	\$ 2.13	11.5%	138,423.5	13,921.4	10.1%

5. Pilot Results - Tables

Linkages to National Accounts





5. Pilot Results - Tables

Derivation of Tourism Product Ratios Year Ended December 2018 (Million of Tala)			
Products	Total Demand (Table1)	Total Supply (Table3)	Tourism Product Ratio
Tourism-Characteristics Products			
Accommodation Services	66.00	68.52	0.96
Food Serving Services	10.64	15.04	0.71
Beverage Serving Services	4.54	6.76	0.67
Land Transport Services of Passengers	20.81	62.70	0.33
Water Transport Services of Passengers	10.07	26.61	0.38
Air Transport Services of Passengers	80.67	88.63	0.91
Travel Agencies, Tour Operators and Other Reservation Services	19.38	21.71	0.89
Leasing or Rental Services - Cars and Light Vans without Operator	5.41	6.51	0.83
Recreational, Cultural and Sporting Services.	10.34	24.53	0.42
Total Tourism-Characteristic Products	227.86	321.01	0.71
Tourism-Related Products			
Retail sales	285.67	2,354.15	0.12
<i>Food</i>	176.24	1,396.12	0.13
<i>Beverage & Tobacco</i>	9.15	26.63	0.34
<i>Wearing Apparel including "Elei"</i>	8.05	37.21	0.22
<i>Fuel</i>	28.49	628.98	0.05
<i>Handicrafts</i>	60.74	68.43	0.89
<i>Others such as Jewelries, Sporting Goods and so forth.</i>	2.99	196.78	0.02
Financial Services,	3.69	295.20	0.01
Gambling Services	0.002	2.198	0.001
Education Services	11.22	204.11	0.05
Total Tourism-Related Products	300.57	2,855.66	0.11

Source: Implicit



5. Pilot Results - Tables

Derivation of Tourism Industry Ratios Year Ended December 2018 (Million of Tala)													
Products	Tourism-Characteristics Industries								Tourism-Related Industries			All Non Tourism Related Industries	Imports
	Accommodation	Food & Beverage Service Activities	Road Passenger Transport	Water Passenger Transport	Air Passenger Transport	Travel Agencies & Tour Operators Activities	Rental & Leasing Activities	Recreational & Cultural Activities	Retail Trade	Financial Services,	Education Services		
Tourism-Characteristics Products													
Acomodation Services	59.3	6.7	-	-	-	-	-	-	-	-	-	-	-
Food Serving Services	6.4	4.3	-	-	-	-	-	-	-	-	-	-	-
Beverage Serving Services	3.0	1.5	-	-	-	-	-	-	-	-	-	-	-
Land Transport Services of Passengers	1.0	-	19.8	-	-	-	-	-	-	-	-	-	-
Water Transport Services of Passengers	1.1	-	-	9.0	-	-	-	-	-	-	-	-	-
Air Transport Services of Passengers	0.6	-	-	-	80.1	-	-	-	-	-	-	-	-
Travel Agencies, Tour Operators and Other	2.4	2.0	-	-	-	15.0	-	-	-	-	-	-	-
Leasing or Rental Services - Cars and Light	0.6	-	-	-	-	-	4.8	-	-	-	-	-	-
Recreational, Cultural and Sporting Services	0.1	-	-	-	-	-	-	9.4	-	-	-	0.9	-
Total Tourism-Characteristic Products	74.4	14.5	19.8	9.0	80.1	15.0	4.8	9.4	-	-	-	0.9	-
Tourism-Related Products													
Retail sales													
<i>Food</i>	-	-	-	-	-	-	0.0	0.0	170.1	-	-	0.8	5.2
<i>Beverage & Tobacco</i>	0.8	0.1	-	-	-	-	0.0	0.0	4.9	-	-	0.3	3.1
<i>Wearing Apparel including "Elei"</i>	-	-	-	-	-	-	0.0	0.0	7.7	-	-	0.1	0.2
<i>Fuel</i>	-	-	-	-	-	-	0.0	0.0	11.5	-	-	2.8	14.1
<i>Handicrafts</i>	-	-	-	-	-	-	0.9	0.1	59.8	-	-	-	-
<i>Others such as Jewellery, Sporting Goods</i>	-	-	-	-	-	-	0.0	0.0	2.0	-	0.1	0.8	0.1
Financial Services,	-	-	-	-	-	-	-	-	-	3.0	-	0.7	-
Gambling Services	-	-	-	-	-	-	-	0.0	-	-	-	-	-
Education Services	-	-	-	-	-	-	-	-	-	-	1.4	9.8	-
Total Tourism-Related Products	0.8	0.1	-	-	-	-	0.9	0.1	256.0	3.0	1.5	15.4	22.7
Direct Tourism Sales	75.2	14.6	19.8	9.0	80.1	15.0	5.8	9.5	256.0	3.0	1.5	16.2	22.7
Total Industry Output	94.6	23.7	65.8	26.5	82.0	19.1	7.5	26.3	1,311.7	270.7	6.4	2,327.5	-
Tourism Industry Ratio (TIR)	0.80	0.62	0.30	0.34	0.98	0.78	0.77	0.36	0.20	0.01	0.24	0.01	

Source: Implicit

5. Pilot Results - Tables

Derivation of Direct Tourism Value Added Year Ended December 2018 (Million of Tala)													
	Tourism-Characteristics Industries								Tourism-Related Industries			All Non Tourism Related Industries	Total
	Accommodation	Food & Beverage Service Activities	Road Passenger Transport	Water Passenger Transport	Air Passenger Transport	Travel Agencies & Tour Operators Activities	Rental & Leasing Activities	Recreational & Cultural Activities	Retail Trade	Financial Services,	Education Services		
Tourism Industry Ratios (TIR)	0.80	0.62	0.30	0.34	0.98	0.78	0.77	0.36	0.20	0.01	0.24	0.01	
Direct Tourism Value Added	28.8	5.6	5.9	3.3	48.1	14.3	4.8	8.2	138.4	2.1	1.1	7.5	268.2
<i>Equivalent to Tourism Output</i>	75.2	14.6	19.8	9.0	80.1	15.0	5.8	9.5	256.0	3.0	1.5	16.2	505.7
<i>Less Tourism Intermediate Consumption</i>	46.4	9.0	13.9	5.7	32.0	0.7	1.0	1.3	117.6	0.9	0.4	8.7	237.5
GDP at Current Prices													2,156.4
Direct Tourism Value Added as a Percent of GDP													12.4%
Components of Direct Tourism Value Added													
<i>Tourism Compensation of Employees</i>	13.6	2.9	3.4	1.7	26.5	7.8	2.0	4.8	107.8	0.4	0.9	2.3	174.1
<i>Tourism Consumption of Fixed Capital</i>	4.9	0.4	1.3	0.9	11.6	0.5	1.5	1.9	7.2	0.4	0.2	0.9	31.9
<i>Tourism Gross Operating Surplus</i>	10.3	2.2	1.2	0.8	9.9	5.9	1.3	1.5	23.5	1.2	0.0	4.3	62.2

Source: Implicit

5. Pilot Results - Tables

Direct Tourism Employment and Compensation of Employees by Industry Year Ended December 2018 (Million of Tala)													
	Tourism-Characteristics Industries								Tourism-Related Industries			All Non Tourism Related Industries	Total
	Accommodation	Food & Beverage Services	Road Passenger Transport	Water Passenger Transport	Air Passenger Transport	Travel Agencies & Tour Operators	Rental & Leasing Activities	Recreational & Cultural Activities	Retail Trade	Financial Services,	Education Services		
Total Employment in Samoa													
Male	865	251	1,094	159	163	161	159	58	2,235	483	185	8,075	13,888
Female	692	213	48	153	378	986	976	53	1,349	649	377	4,584	10,458
Total	1,557	464	1,142	312	541	1,147	1,135	111	3,584	1,132	562	12,659	24,346
Tourism Industry Ratio	0.80	0.62	0.30	0.34	0.98	0.78	0.77	0.36	0.20	0.01	0.24	0.01	
Total Tourism Employment in Samoa													
Male	688	155	329	54	159	126	122	21	436	5	44	56	2,196
Female	550	132	14	52	369	773	748	19	263	7	90	32	3,049
Total	1,238	287	343	106	529	899	869	40	699	12	134	88	5,245
Tourism Employment as %'age of Total Employment													21.5%
Tourism Compensation of Employees ('000)	13.6	2.9	3.4	1.7	26.5	7.8	2.0	4.8	107.8	0.4	0.9	2.3	174.1
Average Compensation per Tourism Employee	11.0	10.2	9.8	15.9	50.2	8.7	2.3	120.0	154.0	34.3	6.8	25.9	33.2

Source: NPF Data Source

5. Pilot Results - Tables

Total Water Value on Supplied Water by Samoa Water Authority (SAT\$)				
Industries	2016-17	Tourism Industry Ratio_%	2016-17 Tourism Usage	Core Assumptions
Agriculture, Livestock and Fishing	152,762.70	-	-	Not Applicable
Manufacturing, Mining & Quarrying and Construction	628,073.20	-	-	Not Applicable
Manufacturing	546,828.70	-	-	Not Applicable
Construction	79,926.50	-	-	Not Applicable
Mining & Quarrying	1,318.00	-	-	Not Applicable
Electricity, Gas and Air Condition Supply	6,749.00	-	-	Not Applicable
Water Supply, Collection and Treatment	400	0.11	35.20	Assumption, 0.11 of waste treated from accommodation and 0.8 of accommodation from Tourism Industry
Sewerage	3,542.00	0.11	311.70	Assumption, 0.11 of waste treated from accommodation and 0.8 of accommodation from Tourism Industry
Other Industries	6,550,483.34		1,997,430.32	
Accommodation and Food Services	1,415,161.10		-	
<i>Accommodation (0.8)</i>	1,132,128.88	0.80	900,180.89	Pro Rate according to Accommodation & Food Services
<i>Food Services (0.2)</i>	283,032.22	0.62	175,155.71	Pro Rate according to Accommodation & Food Services
Education	1,102,703.00	0.24	263,717.65	Tourism Industry Ratio
Public Administration and Defense	754,431.90	0.02	14,695.74	Assume water and energy usage is pro rated according to Salaries for MAF Quarantine Division with Assumption 0.8 of Quarantine used by the Tourism Industry; Immigration 0.8 used by Tourism and Police 0.05 used by Tourism and STA 0.95 used by Tourism Industry
Wholesale & Retail Trade	710,681.40	0.20	138,705.65	Tourism Industry Ratio
Human Health and Social Work	607,176.10	0.05	30,358.81	Estimate 5% of MOH used by Tourism
Real Estate, Rental and Leasing Activities	499,702.60	0.20	99,940.52	Estimate 20% of Rental Property used by Tourism
Other Service Activities	379,767.10	0.12	47,088.99	Use total Tourism Industry Ratio as proxy
Financial and Insurance Services	356,712.60	0.01	3,893.95	Tourism Industry Ratio
Arts, Entertainment and Re-Creation	214,746.80	0.36	77,762.92	Tourism Industry Ratio
Transportation and Storage	197,676.10		-	
<i>Land Transportation and Storage</i>	59,404.49	0.30	17,851.90	Pro Rate according to air, sea and land transport
<i>Sea Transportation and Storage</i>	66,938.51	0.34	22,667.20	Pro Rate according to air, sea and land transport
<i>Air Transportation and Storage</i>	193,187.95	0.98	188,801.69	Pro Rate according to air, sea and land transport
Administrative and Support Service Activities	92,106.60	0.15	14,109.13	Estimate that this category consists of 20% from Car Rentals Includes car rentals
Activities of Extraterritorial Organizations	63,120.50	-	-	Ask for confirmation on what this entails. i.e. if it includes embassies located on Samoa
Information and Communication	20,158.80	0.12	2,499.58	Use total Tourism Industry Ratio as proxy
Professional, Scientific and Technical Activities	14,483.90	-	-	Not Applicable
Total Industries	7,342,010.24		1,997,777.22	
Households	11,182,834.70	0.01	130,297.24	Households water usage by Tourism (VFR tourist only staying for average of 14 days)
Grand Total	18,524,844.94		2,128,074.46	
Percentage of Water Usage by tourism			11.5%	

5. Pilot Results - Tables

EPC Electricity Sales 2018 (MWh) and Tourism Linkages				
	2018	Tourism Industry Ratio_ %	2018 Tourism Usage	Core Assumptions
Domestic	45,908.8	0.01	534.9	Households electricity usage by Tourism (VFR tourist only staying for average of 14 days)
Commercial	38,977.9	0.20	7,607.4	Use Retail Trade Tourism Industry Ratio as proxy. It is assumed Retail Trade is the largest Industry I this category. However should be disaggregated in the future
Gov't Dept.	26,635.8	0.02	648.6	Pro rate according to usages for MAF Quarantine Division with Assumption 0.8 of Quarantine used by the Tourism Industry; Immigration 0.8 used by Tourism and Police 0.05 used by Tourism and STA 0.95 used by Tourism Industry
Hotels	5,594.3	0.80	4,448.2	Tourism Industry Ratio
Industrial	9,625.5	0.00	0.0	Not Applicable
Religions	6,531.2	0.05	326.6	Assume 5% used by Tourism Industry
Schools	2,280.8	0.00	0.0	Not Applicable
Street lights	2,869.2	0.12	355.8	Use total Tourism Industry Ratio as proxy
Grand Total	138,423.5		13,921.4	
Percentage of Energy Usage by tourism	10.1%			

5. Pilot Results - Research Finding

1. Research Findings on TSA GDP Linkages:

- Conduct a full TSA Indicator Survey to update benchmarks on Tourism Demand and Supply.
- Update Tourism Gross Fixed Capital Formation by Industry

2. Research Findings on TSA Linkages to other Accounts:

- Major data gaps especially in relation to Waste, Land-Use and Energy Accounts.
- Waste Accounts requires improved benchmarks obtained through surveys and complimented by improved administrative data collected from selected rubbish dump sites.
- Energy Accounts requires access, coding of administrative data collected by the relevant agencies coupled with selected surveys.



5. Pilot Results - Research Finding

2. Research Findings on TSA Linkages to other Accounts Cont.

- Linking to Land-Use requires certain questions being included in relevant Tourism related surveys to obtain acres and type of land ownership by Industry.
- Obtaining maps on location and boundaries for Tourism related sites. That is location of tourism related establishments.

6. Main challenges and needs

1. Data:

- Obtaining access to administrative datasets especially with respect to linking the TSA to other accounts using the SEEA framework.
- Recoding administrative data where appropriate.
- Conducting key surveys to obtain key ratios and benchmark.

2. Institutional Arrangements:

- Improving data management – capture, storage and retrieving and compiling administrative data sets.
- Data Sharing arrangements between agencies.
- Setup of key working/technical groups comprising multiple agencies.

6. Main challenges and needs

3. Financial Constraint:

- Costs involved in conducting regular and periodic surveys.
- Hiring of additional technical staff and
- Technical Equipment such as mapping and photography equipment.

4. Technical capacity:

- Capacity building for key counterpart staff including both international and local trainings on key International Frameworks, as well as developing key Operational Guidelines.

5. Time

- Limited timeframe to conduct a full TSA and establish improved linkages with other accounts.

7. Next steps for ocean accounts or policy

1. TSA Implementation:

- Develop a Policy Paper including a Road Map and Guidelines for the full development of a TSA for Samoa including building in sound linkages to other key accounts using the SEEA framework.

2. TSA Key Data Requirements:

- Identify, Design and Conduct surveys to obtain the necessary ratios and benchmarks to fully link the TSA to other key accounts as well as further improving national accounts linkages.
- Obtain key administrative datasets and rearrange according and transform into key ongoing TSA datasets.



Thank you!