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INFORMATION PAPER

Capacity for producing economic statistics in the Pacific

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Abbreviations

ABS	Australian Bureau of Statistics
ADB	Asian Development Bank
CNMI	Commonwealth of the Northern Mariana Islands
CPI	Consumer Price Index
CSQ	Capacity Screening Questionnaire
ESCAP	Economic and Social Commission for Asia and the Pacific
FSM	Federated States of Micronesia
GDP	Gross Domestic Product
GIST	Global Network of Institutions for Statistical Training
IMF	International Monetary fund
IT	Information Technology
km^2	Square Kilometre
NSDS	National Strategy for the Development of Statistics
NSO	National Statistics Office
NSS	National Statistical System
PARIS21	Partnership in Statistics for Development in the 21st Century
PFTAC	Pacific Financial Technical Assistance Centre
PICT	Pacific Island countries and territories
PNG	Papua New Guinea
RMI	Marshall Islands
RPES	Regional Programme for the Improvement of Economic Statistics in Asia and the Pacific
SGRPES	Steering Group for RPES
SIAP	Statistical Institute for Asia and the Pacific
SPC	Pacific Community
Stats NZ	Statistics New Zealand
STI	Short-term Indicator
TA	Technical Assistance
USP	University of the South pacific

A. BACKGROUND

The Regional Programme for the Improvement of Economic Statistics in Asia and the Pacific (RPES) aims to ensure that, by 2020, all countries in Asia and the Pacific have the capacity to produce and disseminate a core set of economic statistics. RPES was approved by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) Committee on Statistics in 2010 and has since then been coordinated and serviced by ESCAP.

The Steering Group for RPES, the SGRPES, comprises experts from National Statistics Offices (NSO) and central banks of 22 Asia-Pacific nations, the Asian Development Bank, the Association of Southeast Asian Nations, the Statistics Division of the United Nations Department of Economic and Social Affairs, the International Labour Organization, and the Pacific Community (SPC).

A task force of the SGRPES designed and tested the capacity screening tool, a questionnaire with the purpose of monitoring progress towards the objective of RPES. The capacity screening questionnaire (CSQ) was designed to collect information from member states on capacities and constraints related to producing the core set of economic statistics in their country. The CSQ covered *thirty-one indicators divided into seven categories.*

The CSQ has been administered twice: in 2014 and 2017. This information paper focuses mainly on the results of the 2017 capacity screening.

B. THE CORE SET OF ECONOMIC STATISTICS

The ***core set*** of economic statistics comprises thirty-one indicators divided into seven categories:

1. Prices and costs

Six indicators -

a. Consumer price index (CPI)
b. Producer price index
c. Commodity price index
d. External merchandise trade price indices
e. Wages/earnings data
f. Labour costs index /wage index

2. Demand and output

Eleven indicators -

a. Gross Domestic Product (GDP) (production) nominal and real
b. GDP (expenditure) nominal and real
c. External trade – merchandise
d. External trade – services
e. Short-term indicators (STI) on:
    - industry output
    - services output
    - consumer demand
    - fixed investment
    - inventories
g. Economy structure statistics
h. Productivity

3. Income and wealth

Six indicators -

a. Integrated national accounts for the total economy
a. Institutional sector accounts
b. Balance of payments
c. International investment position
d. External debt
e. Income distribution

4. Money and banking

Three indicators -

a. Assets/liabilities of depository corporations
b. Broad money and credit aggregates
c. Interest rates statistics

5. Government

Two indicators -

a. General government operations
b. General government debt

6. Labour market

Two indicators -

a. Labour supply and demand
b. Hours worked

7. Natural resources and the environment

One indicator -

a. Natural resources

C. THE SURVEY

The CSQ collected information from NSOs on a variety of aspects related to the capacity of the institutions to produce the core set of economic statistics: technical cooperation, institutional setting, training and infrastructure. It also asked for current production of each of the indicators included in the core set.

This paper focuses on the responses provided on current production of the core set, including:

a. the recommended core economic indicators produced by NSOs of the member states;

b. the number of core indicators produced by the NSOs that met the recommended frequency of production e.g. the recommended frequency for countries to produce external trade merchandise was monthly; the survey asked if the countries did this;

c. responses to the reasons for countries not being able to compile the recommended core economic indicators; and

d. views of the NSOs in overcoming the constraints faced to produce the recommended core economic indicators.

This paper covers the **Pacific** region[1] only and as such includes the results of the 14 Pacific Island countries and territories (PICTs) that responded to the CSQ: namely, American Samoa, Cook Islands, Fiji, Guam, Kiribati, Marshall Islands (RMI), Federated States of Micronesia (FSM), Nauru, Niue, Commonwealth of the Northern Mariana Islands (CNMI), Papua New Guinea (PNG), Samoa, Tuvalu and Vanuatu.[2]

The full results of the survey and an analysis of the findings for the Asia-Pacific region are available here: http://communities.unescap.org/asia-pacific-economic-statistics/country-overview-statistical-capacity-2017.

D. THE RESULTS

1. Number of core economic indicators produced by PICTs

Of the 31 core economic indicators recommended to be produced by all PICTs –

a. Fiji produced the highest number: 90%;

b. Samoa produced 65%;

c. PNG, Vanuatu and RMI each produced 48%;

d. FSM produced 45%;

e. Cook Islands produced 42%; and

f. All the rest produced less than 40% of the indicators, with Tuvalu producing the least: 16%.

Table 1 shows which country produced what percentage of the total recommended core economic indicators.

Table 1: Number of core economic indicators produced by PICTs

Total number of core economic indicators recommended to be produced: 31		
Country	**Core indicators produced by PICTs**	
	Number	**%**
American Samoa	7	23
Cook Islands	13	42
FSM	14	45
Fiji	28	90
Guam	12	39
Kiribati	9	29
RMI	15	48
Nauru	6	19
Niue	7	23
CNMI	7	23
PNG	15	48
Samoa	20	65
Tuvalu	5	16

[1] Excluding Australia and New Zealand.

[2] The countries that did not respond to the survey were French Polynesia, New Caledonia, Palau, Solomon Islands and Tonga. Tokelau, Wallis and Futuna, Norfolk Island and Pitcairn were not part of the survey.

Total number of core economic indicators recommended to be produced: 31		
Country	**Core indicators produced by PICTs**	
	Number	**%**
Vanuatu	15	48

2. Number of core economic indicators produced by PICTs that met the recommended frequency of production

Timeliness of data production is an important dimension of quality. It allows users/people to make informed decisions based on recent data. These decisions prepare them to face the upcoming challenges and help prepare them for a better tomorrow.

Unfortunately, many of the indicators produced by PICTs did not meet the recommended frequency of production. Refer to Table 2.

Table 2: Number of core economic indicators that met the recommended frequency of production

Country	**Core indicators produced**	**Core indicators that met the recommended frequency of production**	
	Number	**Number**	**Percentage**
American Samoa	7	1	14
Cook Islands	13	2	15
FSM	14	4	29
Fiji	28	18	64
Guam	12	4	33
Kiribati	9	3	33
RMI	15	4	27
Nauru	6	1	17
Niue	7	2	29
CNMI	7	2	29
PNG	15	11	73
Samoa	20	15	75
Tuvalu	5	1	20
Vanuatu	15	7	47

Table 2 shows that:

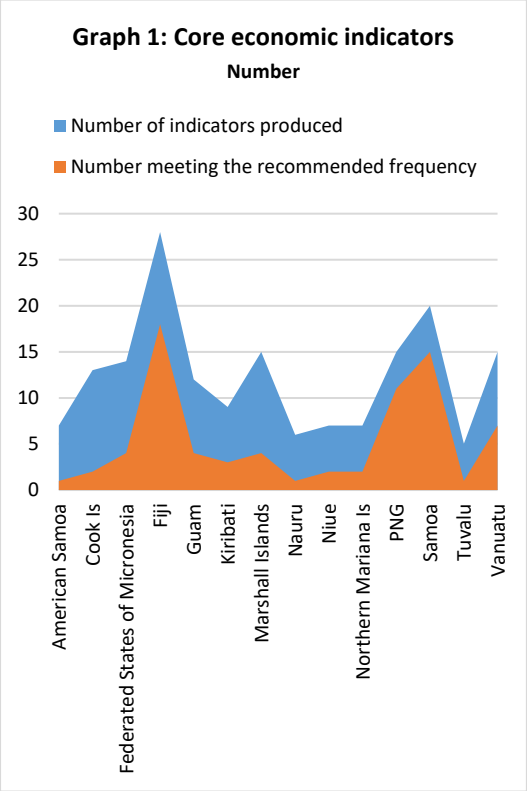
a. 75% of core economic indicators met the recommended frequency of production in Samoa;

b. 73% met the recommended frequency in PNG;

c. 64% met the recommended frequency in Fiji;

d. 47% met the recommended frequency in Vanuatu; and

e. in all other PICTs, less than 40% of the indicators met the recommended frequency of production. In American Samoa, the smallest proportion of core indicators met the recommended frequency: 14%.



Graph 1 visually illustrates the gap between:

a. the number of economic indicators produced by a country; and

b. the number of economic indicators produced by a country meeting the recommended frequency.

Comparing the results of Table 2 with Table 1 shows that Fiji produced 90% of the core set indicators, of which 64% were produced with the required frequency. Samoa and PNG, on the other hand, produced a lower percentage of core set indicators than Fiji but a higher percentage of their indicators met the recommended frequency of production.

Inference 1: It can be deduced that in some situations there could be a trade-off between producing indicators and producing indicators that meet the recommended frequency of production.

For example, to introduce new statistics or analysis, the frequency of some indicators may need to be put on hold temporarily to free up the required human resources.

3. Types of core economic indicators produced by PICTs

Table 3, which is graphically presented in Graph 2, provides information on the types and frequency of core economic indicators produced by PICTs, classified according to the seven categories.

Table 3: Types of core economic indicators produced by PICTs

Core indicator by category		Recommended frequency	PICTs producing the indicator (number and percentage of PICTs)		PICTs producing the indicator with the recommended frequency (number and percentage of PICTs)	
			Number	%	Number	%
Prices and costs	CPI	Quarterly	14	100	14	100
	Producer price index	Quarterly	1	7	1	100
	Commodity price index	Monthly	0	0	0	0
	External merchandise trade price indices	Monthly	3	21	1	33
	Wages / Earnings data	Quarterly	8	57	1	13
	Labour costs index / Wage index	Quarterly	0	0	0	0
Demand and output	GDP (production) nominal and real	Quarterly	14	100	3	21
	GDP (expenditure) nominal and real	Quarterly	7	50	0	0
	External trade - merchandise	Monthly	13	93	5	38
	External trade - services	Quarterly	5	36	3	60
	STI - industry output	Quarterly	3	21	1	33
	STI - services output	Quarterly	2	14	1	50
	STI - consumer demand	Quarterly	1	7	1	100
	STI - fixed investment	Quarterly	3	21	0	0
	STI - inventories	Quarterly	2	14	0	0
	Economy structure statistics	Every 5 years	3	21	2	67
	Productivity	Annually	2	14	0	0
Income and wealth	Integrated national accounts for the total economy	Annually	4	29	3	75
	Institutional sector accounts	Annually	2	14	2	100
	Balance of payments	Quarterly	11	79	4	36
	International investment position	Annually	7	50	7	100
	External debt	Quarterly	8	57	3	38
	Income distribution	Every 5 years	3	21	3	100
Money and banking	Assets / Liabilities of depository corporations	Monthly	7	50	3	43
	Broad money and credit aggregates	Monthly	6	43	3	50
	Interest rate statistics	Monthly	7	50	3	43
Government	General government operations	Quarterly	13	93	3	23
	General government debt	Quarterly	11	79	3	27
Labour market	Labour supply and demand	Annually	4	29	0	0
	Hours worked	Quarterly	5	36	1	20
Natural resources and environment	Natural resources	Annually	3	21	2	67

Table 3 shows that one factor in meeting or exceeding the recommended frequency of production is the length of time[3] given for compiling the indicator. Short timeframes, such as monthly and quarterly, are hard to meet for small NSOs employing a few staff.

Reponses to selected indicators are analysed below.

3.1. Prices and costs

a. The CPI is produced by all the countries and all of them produce this indicator with the required frequency, clearly indicating the importance of this indicator to the users. The CPI has many uses in the Pacific region. In addition to being used for calculating the inflation rate, almost all PICTs use it as a price deflator in the national accounts, i.e. it substitutes for other price indices[4] which, due to resource constraints, many NSOs in the Pacific do not construct. This can be seen by the external merchandise trade price indices which were produced by three countries, and the producer price index, which was produced by one country.

b. Wages/earnings data were produced by eight countries. Collecting wages/earnings data through a survey is not a preferred option, as many PICTs do not have the human and financial resources. The preferred source for these data is administrative records and for some countries this source is yet to be tapped.

c. The commodity price index and the labour costs index/wage index were not produced by any country, probably due to resource constraints and lack of skill.

Inference 2: It can be deduced that, due to the size and skillsets of PICTs' NSOs, several core indices were not constructed, despite data being available for some, such as the external merchandise trade price indices and the wage index.

3.2. Demand and output

a. The GDP in nominal and real prices compiled using the production approach was produced by all the countries, with 21% of them meeting the recommended frequency. In contrast to this, the GDP in nominal and real prices compiled using the expenditure approach was compiled by only 50% of countries, with none of them meeting the recommended frequency of production.

[3] Indicators sorted by recommended frequency of production

Monthly	Quarterly	Annually	Every five years
Commodity price index	CPI	Productivity	Economy structure statistics
External merchandise trade price indices	Producer price index	Integrated national accounts for the total economy	Income distribution
External trade – merchandise	Wages / Earnings data	Institutional sector accounts	
Assets / Liabilities of depository corporations	Labour costs index / Wage index	International investment position	
Broad money and credit aggregates	GDP (production) nominal and real,	Labour supply and demand	
Interest rate statistics	GDP (expenditure) nominal and real	Natural resources	
	External trade – services		
	STI - industry output		
	STI - services output		
	STI - consumer demand		
	STI - fixed investment		
	STI – inventories		
	Balance of payments		
	External debt		
	General government operations		
	General government debt		
	Hours worked		

[4] There are four major types of price index available to derive volume measures in the national accounts: CPIs, producer price indices (PPIs), export price indices (XPIs) and import price indices (MPIs). CPIs are measures of purchasers' prices and PPIs are measures of basic prices. XPIs are measures of FOB prices; MPIs may measure FOB or CIF prices. (2008 SNA 15.108)

b. The external trade - merchandise was produced by 93% of the countries but only 38% of the countries that produced it met the recommended frequency of production.

c. The external trade - services was produced by 36% of the countries, of which 60% met the recommended frequency of production. In quite a few countries, trade in services is not done as a stand-alone compilation. Estimates are derived from the overseas exchange transaction records with the central banks for use in the balance of payments.

d. STIs were not produced by many countries. Fiji is the only country that produced all the recommended short-term core economic indicators.

e. Economy structure statistics were produced by 21% of the countries, of which 67% met the recommended frequency of production.

f. Productivity statistics were produced by 14% of the countries. None of the countries met the recommended frequency of production.

Inference 3: It can be deduced that priority was given to the indicators that are demand driven, i.e. most users want GDP data compiled using the production approach to be able to assess how much different industries contribute to the GDP.

3.3. Income and wealth

Balance of payments, statistics on external debt and the international investment position were the three most used indicators in this category.

a. Balance of payments was produced by 79% of the countries, of which only 36% met the recommended frequency.

b. Statistics on external debt were produced by 57% of the countries, of which only 38% met the recommended frequency.

c. Statistics on international investment position were produced by 50% of the countries and they all met the recommended frequency.

Due to the short data production frequency, many countries were not able to meet the recommended frequency of production for balance of payments and external debt, whilst for the international investment position, countries that produced this indicator were able to meet the recommended frequency because of the longer timeframe given to produce the indicator.

Data on integrated national accounts, institutional sector accounts and income distribution were not produced by many countries, due to lack of resources/skills. However, many that did produce them were able to meet the recommended frequency of production, due to a longer timeframe given to produce the indicator.

a. Statistics on integrated national accounts for the total economy were produced by 29% of the countries, of which 75% met the recommended frequency.

b. Statistics on institutional sector accounts were produced by 14% of the countries and they all met the recommended frequency.

c. Statistics on income distribution, were produced by 21% of the countries and they all met the recommended frequency.

Inference 4: It can be deduced that, if the recommended frequency given is short, many PICTs are not able to meet the recommended frequency of production for those indicators they are able to produce.

3.4. Money and banking

The data used for the compilation of statistics on money and banking come mainly from the central banks/monetary institutions of PICTs.

a. Statistics on assets / liabilities of depository corporations were produced by 50% of the countries, of which 43% met the recommended frequency.

b. Statistics on broad money and credit aggregates were produced by 43% of the countries, of which 50% met the recommended frequency.

c. Interest rate statistics were produced by 50% of the countries, of which 43% met the recommended frequency.

Inference 5: It can be deduced that there is some need to strengthen the statistics units of the central banks. Central banks are a part of the National Statistical System[5] (NSS) in the PICTs.

3.5. Government

a. Statistics on general government operations were produced by 93% of the countries, of which 23% met the recommended frequency of production.

b. Statistics on general government debt were produced by 79% of the countries, of which 27% met he recommended frequency of production.

Inference 6: It can be deduced that government indicators are considered important, but that the recommended frequency (quarterly) is difficult for countries to meet.

3.6. Labour market

a. Statistics on labour supply and demand were produced by 29% of the countries. None of the countries met the recommended frequency of production.

b. Statistics on hours worked were produced by 36% of the countries, of which 20% met the recommended frequency of production.

Inference 7: It can be deduced that countries are giving low priority to the compilation of data on the labour market, probably due to the extensive work and financial resources required for conducting a labour force survey.

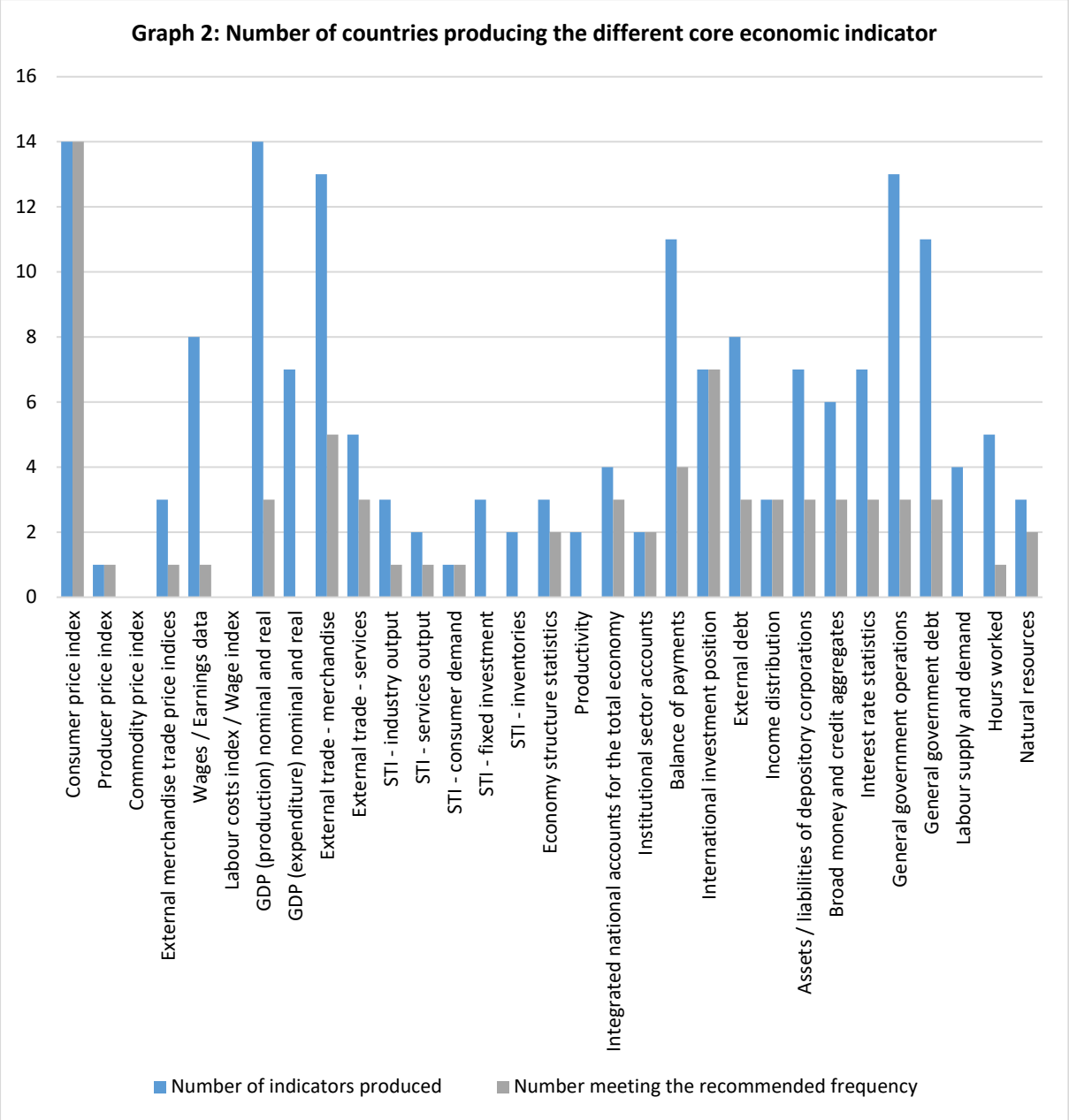
3.7. Natural resources and environment

Data on natural resources were produced by 21% of the countries, of which 67% of the countries met the recommended frequency of production. Statistics on natural resources and environment are of immense importance to PICTs, but to compile them requires additional resources, both human and financial, and appropriate training of staff is needed.

Inference 8: It can be deduced that additional resources and Technical Assistance (TA) in new areas of statistics, such as natural resources and the environment, are needed by PICTs.

[5] The NSS is the combination of statistical organisations and units within a country that jointly collect, process and disseminate official statistics on behalf of a national government – PARIS21.

Graph 2 graphically presents Table 3.



Graph 2 shows that:

- none of the countries produced:
  - the commodity price index; or
  - the labour cost index/wage index.

- in some cases, the indicators produced by a country all met the recommended frequency of production. These indicators were:
  - the producer price index (one country);
  - the STI-consumer demand (one country);
  - institutional sector accounts (two countries);
  - income distribution (three countries);
  - international investment position (seven countries); and
  - the CPI (all the fourteen countries).

4. Types of core economic indicators produced by PICTs sub-regions: Melanesia, Polynesia and Micronesia

The Pacific region comprises three sub-regions: Melanesia[6], Polynesia[7] and Micronesia[8].

Table 4 throws light on the percentage of countries by sub-region that produced the recommended core economic indicators.

Table 4: The different types of core economic indicators produced by Melanesia, Polynesia and Micronesia

Type of Indicator		Melanesia	Polynesia	Micronesia
		Percentage of countries		
Prices and costs	CPI	100	100	100
	Producer price index	33	0	0
	Commodity price index	0	0	0
	External merchandise trade price indices	67	20	0
	Wages / Earnings data	33	60	67
	Labour costs index / Wage index	0	0	0
Demand and output	GDP (production) nominal and real	100	100	100
	GDP (expenditure) nominal and real	67	20	67
	External trade - merchandise	100	100	83
	External trade - services	67	40	17
	STI - industry output	67	0	17
	STI - services output	67	0	0
	STI - consumer demand	33	0	0
	STI - fixed investment	100	0	0
	STI - inventories	67	0	0
	Economy structure statistics	33	20	17
	Productivity	33	20	0
Income and wealth	Integrated national accounts for the total economy	33	20	33
	Institutional sector accounts	0	0	33
	Balance of payments	100	80	67
	International investment position	100	40	33
	External debt	100	40	50
	Income distribution	33	20	17
Money and banking	Assets / Liabilities of depository corporations	100	20	50
	Broad money and credit aggregates	100	40	17
	Interest rate statistics	100	40	33
Government	General government operations	100	80	100
	General government debt	100	60	83
Labour market	Labour supply and demand	33	40	17
	Hours worked	33	40	33
Natural resources and environment	Natural resources	33	20	17

4.1. Highlights

a. All countries in all the three sub-regions produced the CPI and the GDP (production) nominal and real.

Shows only countries that responded to the CSQ:

[6] **Melanesia** comprises PNG, Fiji and Vanuatu.

[7] **Polynesia** comprises American Samoa, Cook Islands, Niue, Samoa and Tuvalu.

[8] **Micronesia** comprises FSM, Guam, Kiribati, Northern Marianas, RMI, Nauru and Palau.

b. All countries in Melanesia and Polynesia and 87% in Micronesia produced the external trade - merchandise.

c. All countries in Melanesia produced the STI - fixed investment, which no country in Polynesia and Micronesia produced.

d. All countries in Melanesia produced the balance of payments, while 80% in Polynesia and 67% in Micronesia did so.

e. All countries in Melanesia produced the International Investment position, while 40% in Polynesia and 33% in Micronesia did so.

f. All countries in Melanesia produced the external debt, while 40% in Polynesia and 50% in Micronesia did so.

The above results may be due to the larger population size of the three Melanesian countries. The next section looks further into the correlation between the population size and the number of indicators produced by the countries.

E. REASONS GIVEN BY COUNTRIES FOR NOT PRODUCING ALL THE RECOMMENDED CORE ECONOMIC INDICATORS

In the CSQ, countries were requested to tick the box(es) containing the reason(s) for their inability to compile the recommended core economic indicators. The options given were:

- not relevant
- low priority
- no or insufficient funds
- no or inadequate source data
- no or inadequate manpower
- lack of skills or expertise
- inadequate IT systems
- no clear stakeholder and/or champion.

SPC looked through the responses and analysed the underlying issues. The analysis is presented in three parts – issues related to the size of the population/NSO, issues related to institutional coordination, and issues related to statistics planning.

1. Size of the country has an impact on the size of the NSOs

PICTs vary in geographical size and population, ranging from PNG, with the largest land area of 462,840 km^2 and a population of around 8.3 million people, to Nauru, with a land area of 21 km^2 and a population of 10,900 people and Niue with a land area of 259 km^2 and a population of 1,520 people.

A good way to test the underlying assumption that countries with a small population cannot have a big statistics office[9] is to look at the percentage of indicators produced by a country against its population size.

Table 5 shows countries sorted by their population size and the percentage of core economic indicators produced by them. To supplement the information, their land area is also provided.

The countries have been divided into six population-size groups:

- Group 1: Population greater than one million: *PNG.*
- Group 2: Population greater than 500,000 but less than a million*: Fiji.*
- Group 3: Population greater than 250,000 but less than 500,000: *Vanuatu.*
- Group 4: Population greater than 100,000 but less than 250,000: *Samoa, Guam, Kiribati* and *FSM.*
- Group 5: Population greater than 50,000 but less than 100,000: *American Samoa, CNMI* and *RMI.*
- Group 6: Population less than 50,000: *Cook Islands, Nauru, Tuvalu* and *Niue.*

Table 5: Percentage of indicators compiled, sorted by population size of country

Groups	Country	Land area (km^2)	2017 Mid-year population estimates	Percentage of total population	Percentage of core indicators produced
1	PNG	462,840	8,330,600	80.93	48
2	Fiji	18,333	888,400	8.63	90
3	Vanuatu	12,281	283,300	2.75	48
4	Samoa	2,934	196,800	1.91	65
	Guam	541	170,900	1.66	39
	Kiribati	811	113,200	1.10	29
	FSM	701	104,900	1.02	45
5	American Samoa	199	56,570	0.55	23
	CNMI	457	55,900	0.54	23
	RMI	181	55,200	0.54	48
6	Cook Islands	237	15,150	0.15	42
	Nauru	21	10,900	0.11	19
	Tuvalu	26	10,200	0.10	16
	Niue	259	1,520	0.01	23
	Total		**10,293,540**		

[9] The number of people employed in 2017 is not available. 2019 estimates are:

Country	No of staff	Source
American Samoa	7	Statistics Office
Cook Islands	10	Statistics Office
FSM	21	Statistics Office
Fiji	146	Fiji Bureau of Statistics
Guam	30	Bureau of Statistics and Plans
Kiribati	14	National Statistics Office
RMI	5	Economic Policy, Planning and Statistics Office
PNG	134	National Statistical Office
Nauru	5	Bureau of Statistics
Niue	4	Statistics Niue
CNMI	6	Central Statistics
Samoa	87	Samoa Bureau of Statistics
Tuvalu	4	Central Statistics Division
Vanuatu	52	National Statistics Office

Note that the estimates include the heads of the NSOs, the administrative and finance officers and IT persons.

In terms of size, PNG is by far the largest. In 2017 it accounted for 80.93% of the total population but the percentage of indicators it produced:

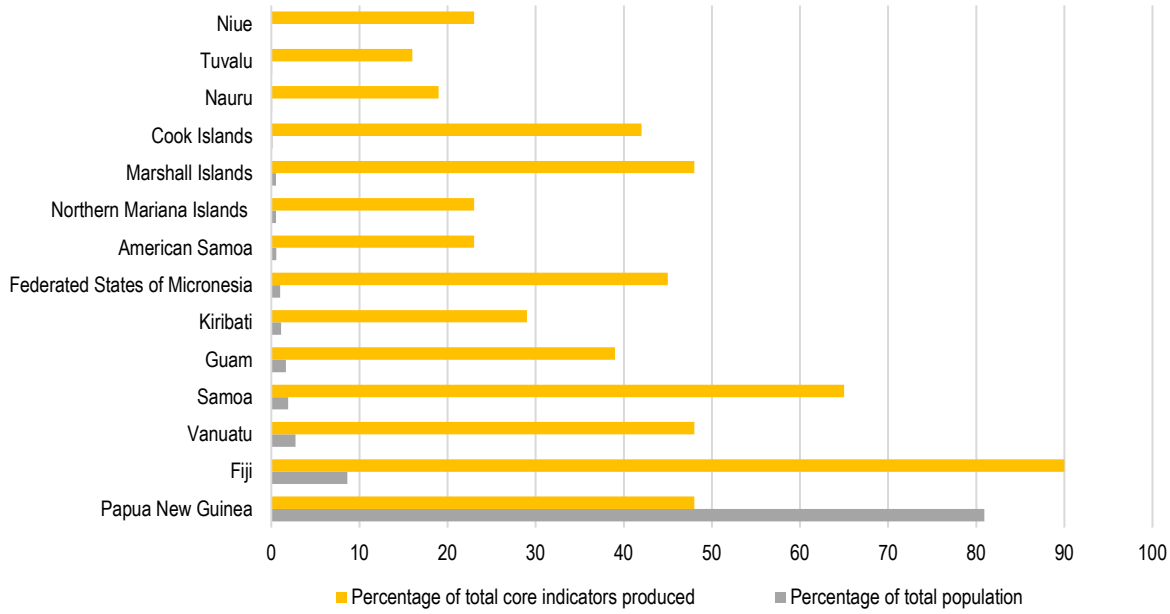
a. is similar to what Vanuatu in Group 3 (2.75% of total population) and RMI in Group 5 (0.54% of total population) produced; and

b. is less than what Fiji in Group 2 (8.63% of total population) and Samoa in Group 4 (1.91% of total population) produced.

Vanuatu in Group 2 (2.75% of total population) produced fewer indicators than Samoa in Group 4 (1.91% of total population).

Table 5 is graphically presented in Graph 3.

Graph 3: Population of a country compared to number of core economic indicators produced



Graph 3 shows that Cook Islands in Group 6 (0.15% of total population) produces more indicators than Guam (1.66% of population) and Kiribati in Group 4 (1.10% of population) and American Samoa and the CNMI in Group 5 (0.55% and 0.54% of population respectively).

The analysis also shows that, whilst the size of a country is a major contributor to its ability to produce the recommended core economic indicators, that may not be true for PNG, which is 25 times bigger in land area and nine times bigger in population size than Fiji but produces only 48% of the recommended core economic indicators. Fiji with less than a million population produces 90% of the recommended core economic indicators.

The broader Asia-Pacific analysis concluded that population size was the main explanatory factor for the number of core indicators produced. It is interesting that this conclusion does not hold once the analysis is further disaggregated. Size certainly is a major parameter, but it is not the main determinant. Others are:

a. resource constraints at NSOs: human, technical and financial;
b. skillsets at NSOs for the compilation of specialised/advanced statistics: most NSOs have generalists as opposed to specialists working for them;
c. insufficient source data for the compilation of statistics, e.g. in American Samoa, Nauru and Niue, the trade data from the customs is either absent or incomplete; and
d. outdated IT systems at NSOs and organisations from which administrative data are sourced. Lack of skills in IT is also an issue.

2. Lack of coordination amongst institutions

Coordination amongst institutions is very important. This is where the NSS comes in. For example, expertise for the compilation of monetary statistics lies with the central banks and not the NSOs. Therefore, the coordination powers of the two institutions need to be enshrined in their respective legal acts. This should also be the case in coordinating the relationship between the NSOs and the tax agencies, the NSOs and the Commissioner of Insurance, the NSOs and Customs and the NSOs and private businesses.

Strong coordination between organisations will somewhat appease the issues relating to 'No or inadequate source data', 'No or inadequate manpower' and 'Lack of skills or expertise'.

Inference 9: NSOs are the official source of all statistics but the compilations need to be done by the organisations having expertise in the thematic area and access to the source data, e.g. monetary statistics by the central banks. The different institutions mandated to compile statistics are collectively known as NSS. This system should be led by the NSOs, whose coordination powers and data access should be enshrined in their legal act.

3. Lack of a national strategy or adherence to it to drive statistics development

An issue facing some countries is 'No clear stakeholder and/or champion.' All PICTs need to have a National Strategy for the Development of Statistics (NSDS).[10] Such a strategy is an important document and should reflect the countries' development plan. Stakeholders should be a part of the NSDS development. The demand for statistics should come from the development plan and the stakeholders – countries need to make statistics user-driven. They will then have a better chance of getting funds for more staff and staff training and the whole process, from the collection to the dissemination of data, will be facilitated.

Inference 10: All PICTs need to develop an NSDS, reflective of their national development plans, and follow it through. It is one thing to have a NSDS and quite another to follow it, so the NSOs need to have a committee of eminent persons to monitor and champion the implementation of the NSDS.

F. NSO VIEW ON OVERCOMING CONSTRAINTS

The questionnaire also sought views from the NSOs on their plans to overcome the constraints. Only Niue, Samoa and Tuvalu answered this question. This low response rate may be due to countries not wanting to commit themselves to something they were not sure of.

It will therefore be interesting at this point to investigate progress from 2013 to 2017 by comparing the 2017 capacity screening survey results with those of 2013 for the countries that responded to both surveys. This would give some indication of the scale of improvements that may be possible for PICTs going forward from 2017.

1. Comparison of the 2017 results with the 2013 results

Thirteen countries participated in both the surveys: Cook Islands, FSM, Fiji, Guam, Kiribati, RMI, Nauru, Niue, CNMI, PNG, Samoa, Tuvalu and Vanuatu.

[10] An NSDS is expected to provide a country with a strategy for developing statistical capacity across the entire NSS. The NSDS will provide a vision for where the NSS should be in five to ten years and will set milestones for getting there. It will present a comprehensive and unified framework for continual assessment of evolving user needs and priorities for statistics and for building the capacity needed to meet these needs in a more coordinated, synergistic and efficient manner. It will also provide a framework for mobilising, harnessing, and leveraging resources (both national and international) and a basis for effective and results-oriented strategic management of the NSS – PARIS21.

Table 6: Number of countries compiling indicators in 2017 compared to 2013

Positive change	Negative change

Type of indicator		2013	2017	Change
		Number of countries		
Prices and costs	CPI	13	13	0
	Producer price index	2	1	-1
	Commodity price index	0	0	0
	External merchandise trade price indices	2	3	+1
	Wages / Earnings data	7	8	+1
	Labour costs index / Wage index	0	0	0
Demand and output	GDP (production) nominal and real	13	13	0
	GDP (expenditure) nominal and real	9	6	-3
	External trade - merchandise	12	12	0
	External trade - services	3	5	+2
	STI - industry output	5	3	-2
	STI - services output	3	2	-1
	STI - consumer demand	1	1	0
	STI - fixed investment	3	3	0
	STI - inventories	2	2	0
	Economy structure statistics	2	3	+1
	Productivity	1	2	+1
Income and wealth	Integrated national accounts for the total economy	3	3	0
	Institutional sector accounts	2	2	0
	Balance of payments	11	11	0
	International investment position	7	7	0
	External debt	7	8	+1
	Income distribution	3	3	0
Money and banking	Assets / Liabilities of depository corporations	7	7	0
	Broad money and credit aggregates	6	6	0
	Interest rate statistics	7	7	0
Government	General government operations	13	12	-1
	General government debt	11	10	-1
Labour market	Labour supply and demand	2	4	+2
	Hours worked	3	5	+2
Natural resources and environment	Natural resources	0	3	+3

The change in Table 6 is a mixed bag: whilst some countries were able to produce more indicators, others had to curtail a compilation or two.

Reasons for the positive change may have been:

a. that some compilations were done on an *ad hoc* basis; this is true for wages / earnings data, labour supply and demand, hours worked, economy structure statistics and productivity, all of which were done for 2017; and

b. the possibility that external merchandise trade price indices, external trade - services, external debt and natural resources were new compilations that countries added on to their work plan and not *ad hoc* compilations.

Reasons for the negative change may have been:

a. that some compilations were done on an *ad hoc* basis, i.e. done in 2013 and not in 2017; and

b. that some compilations were started in 2017 through TA but eventually were not completed.

The comparison of the results between the two years show that there are chances of some countries overcoming constraints, whilst for some it may not be possible.

Inference 11: Another capacity screening survey is needed to assess the performance of PICTs since 2017.

2. The Pacific core set

When the results of the 2014 capacity screening survey were released, the SPC deliberated on what a reasonable core set could be for the Pacific region, keeping in mind the reasons mentioned above that may hinder countries from producing all 31 indicators. The criteria used for selecting the Pacific indicators were that they needed to be a subset of the broader Asia-Pacific core set, with priority given to:

a. indicators currently prioritized and produced by PICTs; and

b. indicators for which PICTs are requesting TA by TA providers such as SPC and the Pacific Financial Technical Assistance Centre (PFTAC) (refer to Appendices 1 and 2).

Applying these criteria, SPC came up with a sub-set of the Asia-Pacific core set known as the Pacific core set that comprised 16 indicators, indicated in green in Table 7.

Table 7: The Pacific core set

Category	Indicator
Prices and costs	CPI
	Producer price index
	Commodity price index
	External merchandise trade price indices
	Wages / Earnings data
	Labour costs index / Wage index
Demand and output	GDP (production) nominal and real
	GDP (expenditure) nominal and real
	External trade - merchandise
	External trade - services
	STI - industry output
	STI - services output
	STI - consumer demand
	STI - fixed investment
	STI - inventories
	Economy structure statistics
	Productivity
Income and wealth	Integrated national accounts for the total economy
	Institutional sector accounts
	Balance of payments
	International investment position
	External debt
	Income distribution
Money and banking	Assets / Liabilities of depository corporations
	Broad money and credit aggregates
	Interest rate statistics
Government	General government operations
	General government debt
Labour market	Labour supply and demand
	Hours worked
Natural resources and environment	Natural resources

Table 7 shows the indicators that were selected: in the prices and costs category, three of the six indicators ; in the demand and output category, four of the 11 indicators; in the income and wealth category, three of the six indicators; in the money and banking category, all three indicators; in the government category, both the indicators; in the labour market category, neither of the two indicators; and in the natural resources and environment category, the sole indicator.

Table 8 shows how the Pacific nations fared in producing the Pacific core set compared to the Asia-Pacific core set.

Table 8: Number of Pacific core set of economic indicators compared with the Asia-Pacific core set produced by a country

Number of indicators recommended	**31 Asia-Pacific core set indicators**		**16 Pacific core set indicators**	
Country	**Number and percentage of indicators PICTs are producing**			
	Number	**Percentage**	**Number**	**Percentage**
American Samoa	7	23	6	38
Cook Islands	13	42	11	69
Fiji	28	90	16	100
Guam	12	35	7	44
Kiribati	9	29	9	56
RMI	15	48	11	69
FSM	14	45	11	69
Nauru	6	19	6	38
Niue	7	23	7	44
CNMI	7	23	4	25
PNG	15	48	12	75
Samoa	20	65	14	88
Tuvalu	5	16	4	25
Vanuatu	15	48	13	81

Table 8 shows that:

a. Fiji produced all the indicators in the Pacific core set compared to 90% in the Asia-Pacific core set;

b. Samoa produced 88% of the indicators in the Pacific core set compared to 65% in the Asia-Pacific core set;

c. Vanuatu produced 81% of the indicators in the Pacific core set compared to 48% in the Asia-Pacific core set;

d. PNG produced 75% of the indicators in the Pacific core set compared to 48% in the Asia-Pacific core set;

e. Countries that produced between 50% and 75% of the Pacific core set of indicators are Cook Islands, Kiribati, RMI and FSM; and

f. all the rest produced less than 50% of the recommended Pacific core set.

A smaller set of core indicators obviously suits the Pacific nations, but there is a lot of room for them to improve their performance.

G. THE WAY FORWARD

This paper looks at the ability of the 14 PICTs to produce the 31 recommended core economic indicators.

The conclusion reached is that, whilst some PICTs are able to produce more indicators than others, overall, the inability of the many PICTs to produce all the 31 indicators prescribed in the Asia-Pacific recommended core set, as well as their inability to meet the recommended frequency for many of the indicators, needs to be accepted.

The reasons are many. Some are described below.

The size of the PICTs is important. Countries with small populations cannot have large NSOs. With a small work force, countries need to give priority to compiling indicators that are important to their users.

The size of the NSOs is also the main reason for countries not being able to meet the recommended frequency of production, particularly for high-frequency indicators. A country whose NSO has ten or less staff cannot compile the GDP every quarter. This country may opt to compile the CPI quarterly and the GDP annually. Trade-offs like this are necessary and should be dealt with on a case by case basis.

In small offices, staff lack specialisation, as they must multi-skill themselves to produce basic statistics. A classic example can be seen in Table 2 under the category prices and costs; despite 57% of the countries producing the wages/earnings data, none of them were producing the wage index. In situations like this, countries need to seek TA from TA providers, such as but not limited to SPC, PFTAC, ESCAP, Australian Bureau of Statistics (ABS), Statistics New Zealand (Stats NZ) and International Labour Organisation.

For all PICTs, the skill set at the NSOs needs to be developed. Experience alone is not enough. The knowledge of staff needs to be strengthened for them to be able to produce the required statistics. Supplementing experience with academic knowledge, work attachments, specialised training and workshops, and understudying consultants providing in-country TA are some of the things important for NSOs going forward.

High staff turnover and funding constraints to hire casual staff are issues faced by all NSOs in PICTs, particularly the small NSOs.

a. All NSOs should build in their work curriculum succession planning, particularly the larger NSOs.

b. NSOs should request TA providers for capacity supplementation and or substitution.

Inadequate source data, where administrative records are the source, for example for the compilation of the GDP and merchandise trade, are setbacks faced by NSOs. In such cases NSOs should:

a. hold discussions with the data providers to resolve the issue, e.g. to update their business registers for an economic survey, NSOs should request the tax department to classify all businesses according to the UNs Industrial Classification (International Standard Industrial Classification); and

b. look at alternative data sources, e.g. using partner country data with valuation adjustments to compile international merchandise trade statistics.

Quite a few countries' NSOs and agencies/providers of administrative data have outdated Information Technology (IT) systems. In such circumstances, they should talk to the ministry they come under for the upgrade of the IT systems.

Another issue is the absence of staff from the office as they attend training or workshops offered by international organisations. Their absence affects the output the office can produce. Whilst training is necessary to upskill staff, PICTs should attend training only on statistics they are mandated to produce.

Taking on new projects (e.g. environmental accounts) is not possible for many NSOs. PICTs like Tuvalu and Kiribati need these statistics but are not able to produce them due to lack of resources and skills. In such circumstances, NSOs should engage in discussions with their governments for resources and contact TA providers to assist them.

Undertaking of *ad hoc* surveys, such as labour force surveys and household income and expenditure surveys, absorbs a lot of resources. NSOs should therefore endeavour to produce as many types of statistics as possible from such undertakings.

NSOs also need to establish a long-term survey programme to make most effective use of data collected from each individual survey and avoid duplication in questions as well as reduce respondent burden.

In going forward, the following are also of utmost importance to all PICTs:

a. the NSS should be strengthened and run smoothly, with the NSO at the helm;

b. all NSOs need to have an NSDS and in developing/revising one, they need to ensure that it is not over ambitious;

c. all NSOs with outdated statistics acts need to revise them and, in doing so, strengthen the coordination powers to allow NSOs access to data – memoranda of agreement are an option NSOs can consider; and

d. all NSOs need to form an advisory committee made up of eminent persons[11] to monitor the implementation of the NSDS, as well as provide advice on statistics to NSOs.

Finally, accepting a smaller number of core set indicators for different sized NSOs and relaxing the recommended frequency criteria of the indicators is highly recommended. This should not stop a PICT from producing more indicators than is prescribed or from improving the frequency of the production of an indicator. What is important is what a country can manage to produce as per the Quality Assessment Framework with or without assistance from technical agencies such as SPC, ESCAP, PFTAC and Asian Development Bank (ADB) and statistical agencies such as ABS and Stats NZ.

The recommendations in this section align with the nine commitments on page 3 of ESCAP's *Declaration on Navigating Policy with Data to Leave No One Behind,* which was agreed to by all countries in Asia-Pacific in 2018.[12]

H. CONCLUSION

SPC acknowledges the work done by ESCAP on the capacity screening tool and is looking forward to further collaborations.

The information collected through the capacity screening tool is helping develop national strategies for the development of statistics and is facilitating an exchange of expertise across NSSs, including through South-South cooperation, as well as assistance provided by development partners external to the NSS. It has also helped mobilise donor support.

[11] NSO, university, private sector, government representative and others

[12] https://www.unescap.org/sites/default/files/ESCAP_CST_2018_7_Declaration.pdf

The capacity screening tool has also identified skill gaps at NSOs, and this has led ESCAP to develop a set of training modules and resources that trainers of statisticians in basic economic statistics can use in designing training workshops. http://www.unsiap.or.jp/tot/index.html.

Also, a new platform of resources from several institutions has been created by the Global Network of Institutions for Statistical Training (GIST) https://www.unsdglearn.org/statistics/.

How much PICTs have benefited from the training materials and from the assistance provided by SPC and its partners needs to be known. It is therefore important to conduct another capacity screening of PICTs, with the inclusion of indicators on informal statistics and tourism earnings in the broader Asia-Pacific region, due to their importance to PICTs as well as Asia.

Appendix 1: Member countries of technical assistance providers[13]

Member

Not a member

	Countries	ABS	ADB	IMF/PFTAC	IMF/TAOLAM	IMF	SPC	SNZ	US Graduate School	UNSD/ESCAP	SIAP	USP
1	American Samoa											
2	Cook Islands											
3	Fiji											
4	French Polynesia											
5	Guam											
6	Kiribati											
7	Marshall Islands											
8	Federated States of Micronesia											
9	Nauru											
10	New Caledonia											
11	Niue											
12	CNMI											
13	Palau											
14	Papua New Guinea											
15	Samoa											
16	Solomon Islands											
17	Timor Leste											
18	Tokelau											
19	Tonga											
20	Tuvalu											
21	Vanuatu											
22	Wallis and Futuna											

[13] As at 2017-2018

Appendix 2: Areas of lead and secondary technical assistance responsibility: summary table[13]

	ABS	ADB	IMF/PFTAC	IMF/TAOLAM	IMF HQ	SPC	SNZ	US Graduate School	UNSD/ESCAP	SIAP	USP
Institutional setting											
Strategic planning for Economic Statistics (National strategy for the development of statistics)		S	S	S	S	**L**		S			√
Economic data dissemination	S	S	S	S	**L**	**L**		S			
Statistical infrastructure											
Setting-up of statistical business registers	S		S			**L**		S	S	√	
Regional standards and classifications	S		S			**L**		S			√
Inter-agency data sharing			**L**	**L**	**L**	S		S			
Prices and costs											
CPI	S	S	S		√	**L**	S	S		√	√
Producer Price Index	S		S		√	**L**		S			√
Trade Price Index	S		S		√	**L**		S	S		√
Demand and output											
National accounts	S	S	**L**		√	S	S	S	S	√	√
International merchandise trade statistics						**L**	S	S	S		√
Income and wealth											
External sector statistics (balance of payments, international investment position (IIP) and external debt)			**L**	**L**	√			S			√
Money and banking											
Monetary statistics (broad money and credit aggregates)			**L**					S			√
Government											
Government finance statistics (general government operations and general government debt)	S		**L**		√			S			√
Natural resources and the environment											
Environmental economic accounting (natural resources)			S						**L**	√	√
Number of staff	*	**5**	**5**	**3**	**n/a**	**2**	**1**	**2**	**5**	**4**	**4**

L=Lead agency; S=supporting agency; √= discipline in which learning opportunities are provided

- Mix of economic statisticians work in the region and other ABS staff assist in conjunction with their domestic work programme.

Pacific Community

Communauté du Pacifique