

**TEN YEAR PACIFIC STATISTICS STRATEGY (TYPSS) Phase II**  
**11<sup>TH</sup> PACIFIC STATISTICS STEERING COMMITTEE (PSSC) MEETING**

Tanoa Plaza Hotel, Suva, Fiji Islands  
24<sup>th</sup> – 27<sup>th</sup> November, 2015

**PSSC-11 Agenda Item 6.4**

**Meeting Paper Title: Progress Report by TWG Pacific Surveys Futures**

**1. Purpose of Paper**

To inform PSSC-11 what the TWG determines as its approach to developing a list of potential initiatives for the group and its possible set of activities

**2. Background**

2.1. The TOR for the TWG for Pacific Surveys Futures presented to PSSC-10 determined, inter alia, topics for consideration for the TWG

2.2. The group has determined a process, to create a summary picture of the need, opportunities, and constraints, and then outline how to develop a specific list of development activities. The aim is try instead, to sift the wide range of possibilities so that the most productive areas to explore can be identified, and then to be practical about the opportunities that are likely to present themselves

**3. Key Considerations**

3.1. The suggested process is summarized as follows:

- i. Verify data requirements
- ii. Identify the key characteristics of pacific nations that underpin their particular opportunities and constraints
- iii. Map out the current set of opportunities and constraints
- iv. Develop an overview approach

3.2. An illustrative list of considerations would include:

- Survey frame management, sample size and cost
- Establishing registers as a whole of government tools
- Expedite knowledge exchanges

3.3. And the following is a framework built around the extent of the change, and dividing the list of initiatives from the original brief into 3 categories:

- A. Making the most of our current tools
- B. Standardisation and achieving economies of scale
- C. Adapting innovative data sources and tools to a Pacific context

3.4. The group also suggest a programme of work based on the framework:

- A. Making the most of existing tools
  - Designing data collection with the widest view of the measurement system in mind, especially with a view to how they integrate with Census
  - The use of hybrid survey to collect “rich”, nationally representative information about households and families
- B. Developing standard approaches across the region
  - Trying to make survey and data collection resources as “transportable” as possible
  - The use of administrative data sources to provide indicators either more frequently or at more detailed levels of disaggregation
  - Conducting complex analysis and implementing sophisticated methods with regional standards and support
- C. Examine one key innovative initiative
  - Explore Cell Phones as a Collective Opportunity

#### **4. Key Recommendations**

4.1. For PSSC-11 to note the group’s proposed approach and possible set of activities

#### **5. Annex**

Annex I: Pacific Surveys Future – Draft PSSC work group Approach

## Annex I\_PSSC-11 Agenda 6.4

### **Pacific Survey Futures – DRAFT PSSC work group Approach**

Chair: Epeli Waqavonovono, Government Statistician, Fiji

#### **1. Overview**

The Pacific Survey Futures working group was set up to identify areas where the nature of Pacific states had a specific influence on the context of statistical survey taking, statistical practices, systems and statistical infrastructure. This document suggests a systematic process for developing a list of potential initiatives to explore.

#### **2. Outline Process Overview**

The idea would be to go through a process that tries to create a summary picture of need, opportunities and constraints and then an outline of how to develop a specific list of development activities. The idea of how this would work is to try and sift the wide range of possibilities so that the most productive areas to explore can be identified, and then to be practical about the opportunities that are likely to present themselves.

A suggested process can be summarised as follows:

##### ***(i) Verify data requirements***

Ensuring that critical data requirements have been clearly identified in long term plans, and well distinguished from “nice to haves”; and that there is some confidence about sifting local issues that need specific solutions from generic ones that are amenable to collective approaches.

##### ***(ii) Identify the key Characteristics of pacific nations that underpin their particular opportunities and constraints***

Pacific nations are characterised by size, economic position, the nature of Pacific Islander migration, the spread of people across a multiplicity of isolated islands, and the dependence of island economies on a narrow set of activities along with the share of activities dominated by offshore enterprise.

The way this can impact on the building of statistical infrastructure can be illustrated by:

- Small populations, often physically widely dispersed – so the cost minimisation aspects of design needs individual attention
- Constrained funding – so investments need to be selected carefully, and capacity to absorb change will be a big issue
- Small size of NSO capability – so capacity to absorb change is a critical planning issue
- Local knowledge is very effective at identifying population members – so survey frames may be able to be constructed locally.

- High level of knowledge of contacts in other agencies – suggesting that collaboration between agencies within a nation will ultimately be effective.
- Relatively high adoption of cell phones – suggesting that this might be an opportunity to explore collectively
- Regional collaboration offers opportunities to learn quickly

This is an illustrative list of considerations – the idea is to identify the particular circumstances of Pacific nations that lead them to need solutions that have a different focus from those that are being developed internationally.

***(iii)Map out the current set of opportunities and constraints***

The current context provides an outline of the current opportunities and constraints that need to be considered when identifying a set of initiatives to pursue. The notion is that if work is already in train, or external events are going to provide opportunities, then this should shape how initiatives are prioritised.

The goal is to further refine the type of considerations identified above. An example of the type of list that might be developed is outlined in section 3.

***(iv)Develop an overview approach.***

The idea is to have a “balanced portfolio” of improvements so that progress is being made continuously but that some consideration is being given to structural change.

This assumes that the capacity of statistical offices to manage change will be a practical limitation on what can be done, so the challenge will appear to be to stay tightly focused on achieving concrete benefits as different ideas are explored.

Section 4 adapts the material from the original brief into categories of work that can be pursued. The idea is to have an “extent of change” framework to make it easier to manage risks more explicitly. Section 5 provides an example of what a portfolio of work might look like using the framework suggested in section 4.

### **3. General context**

As above, the current context provides a sense of the current opportunities and constraints that need to be considered when identifying a set of initiative to pursue. The notion is that if work is already in train, or external events are going to provide opportunities then this should shape how initiatives are prioritised.

An illustrative list of considerations might be:

***Survey frame management, sample size and cost***

Across an increasing number of Pacific countries a series of household surveys have been introduced with many common elements in their design. These include:

- Household expenditure survey
- Demographic and Health Survey

The commonality of practices in country with ten yearly censuses of population has been very strong, and embraces many facets including questionnaire form and content, as well as processing and access systems. There is now the likelihood of common economic surveys, initially being developed in the larger states, but with the potential for adoption in all most other Pacific states.

Population, address and business registers are rare, so far, with Fiji being the main country with a business register, and two countries (Nauru and Tuvalu) examining population registers. The emergency services agency of the Cook Islands has completed the development of an address register there, as part of an ESCAP funded pilot for the Pacific.

The existence of such registers brings together and codifies a huge amount of potential auxiliary information that could enable survey designs to take into account pockets of homogeneity of survey populations when determining sample selection and sample size.

Given the high degree of clustering of households in Pacific towns and villages, the absence of auxiliary information is most likely leading to excessively large sample sizes, unnecessarily making sample survey costs disproportionately high in the regions.

### ***Establishing registers as whole of government tools***

Establishing registers of business, population or addresses in small Pacific Island states is likely to be significantly less per capita than in large states, and is possibly an area of advantage that would then have significant spinoffs in generating auxiliary information for surveys. Registers bring together information held in several agencies, and their operation as such may require changes to the Statistics Act. Population registers may be more relevant than traditional censuses of population in states where a large share of the potentially resident population is usually off shore.

### ***Expedite knowledge exchanges***

In this time of rapid development of Pacific statistics, across the island states there are differing speeds with which particular problems are addressed, leading at times to advances in practice that could be quite readily adapted to other states. Much of this has been seen in South-South collaboration, and recognises that amongst the great potential of contemporary information and communications technologies are applications that have more relevance to island states than to their more developed development partners, such as mobile phone applications.

## **4. A framework for an Approach**

Building on the idea of having a framework built around the extent of change, the list of initiatives from the original brief are divided into three categories as follows:

### ***A. Making the most of our Current Tools***

- Need to examine survey design methods now each survey has had its first iteration to assess sample sizes and survey design issues.

- Potential of emerging address registers on household survey frames
- Exploit commonalities in strategies for business survey frame management and survey designs
- Identification of country practices and initiatives that are of value to all countries
- Statistical training initiatives

#### ***B. Standardisation and Achieving Economies of Scale***

- Regional co-ordination of initiatives that all / most countries are engaged in (Survey programmes, SNA development, Population censuses)
- Development and endorsement of common standards, classifications and practices across the Pacific Islands
- Enable the standards, classifications, registers and practices of statistical surveys to be used in managing administrative records of sector agencies.
- By the application of common systems and practices, enable the integration of Pacific statistical sources both at a country and regional level.
- Build up country registers of business, addresses, places through collaboration with administrative departments, legislative change and clear protocols
- Extend commonality of data management systems

#### ***C. Adapting Innovative data Sources and Tools to a Pacific Context***

- Examine satellite mapping, GPS potential
- Innovative data capture methods (mobile phones) used in advanced administrative processes
- Leadership of systems and process investments that have application in all countries

### **5. An outline of a possible set of activities**

This section develops what a programme of work might look like using the framework outlined in section 4.

#### ***A. Making the Most of Existing Tools***

The idea here is to use the SPC (supported in ways they find helpful) as a knowledge hub and look to use the experiences of the different nations to refine approaches to data collection. In particular;

- Designing data collection with the widest view of the measurement system in mind, especially with a view to how they integrate with Census

The Census will be a cornerstone of Pacific data systems. The challenge is to fully exploit the potential of the Census to be a frame for post census survey, a database for statistical analysis, a resource in frame construction and survey design, and possibly even a basis for modelling population change.

- The use of a hybrid survey to collect “rich”, nationally representative information about households and families

The notion of a continuous hybrid survey with adapting content is an appealing way of maintaining a permanent capability, and ensuring that a consistent, well understood methodology is applied.

The use of standard methods, tools and, where appropriate data items to collect the information that will never be available in administrative sources, will help keep survey costs more contained and provide a way to collect data that can be used to make administrative sources more usable.

The information that is collected needs regular institutionalised uses so the value of the collected data can be assessed.

Traditional survey sampling methodology is a variance per unit cost model, which allows high cost areas to be appropriately penalised in the sample allocation. This needs to be fully exploited in sample designs in the region.

## ***B. Developing standard approaches across the region***

- Trying to make survey and data collection resources as “transportable” as possible

Different countries will need to ask different questions on their omnibus surveys but if the core can be kept pretty common, and if simple re-deployable technology can be identified then it would seem likely that there is considerable potential to achieve economies of scale.

- The use of administrative data sources to provide indicators either more frequently or at more detailed levels of disaggregation

Any information that is needed for small areas, would expect to be calculated by combining survey data, register data and other administrative data sources.

The resources devoted to information management in Developed Countries have made administrative data a particularly attractive proposition. The trick here is to try and look at how many of the advantages of administrative data still exist when the admin systems are either on paper or less well managed.

Administrative sources can bring detailed information at a subnational level that is financially impractical from sample surveys. They can also bring measures at a higher frequency than is possible for similar reasons. The need to explore how administrative sources can enrich sample surveys is seen in the potential of tax records to support or replace economic surveys and in the potential of employment, health and educational records to supplement household surveys on these topics to provide subnational measures.

The difficulty is in determining how much effort should be spent trying to develop administrative data. This is can only be done on a case by case basis so its labour intensive.

- Conducting complex analysis and implementing sophisticated methods with regional standards and support

Presumably there will be a great deal of similarity between information requirements and data restrictions. There is likely to be more scope for more insightful dissemination and analysis to be done with assistance from an agent like the South Pacific Commission.

### ***C. Examine one key innovative initiative***

- Explore Cell Phones as a Collective Opportunity

The idea is compelling but how do we get to making an assessment of whether there is a feasible way ahead here.

Of all the possibilities, Cell phones seem to be a significant opportunity. They provide a way of contacting people, so they might be a way to collect indicator information. In addition the metadata associated with cell phones can provide insight into population movement, location of business activity and networks of support.

It is sobering that efforts in more developed nations have shown that there can be considerable investment required to make Cell phone data more usable. For this to be a useful approach in the Pacific it will be necessary to leverage off work done by other statistical offices and possibly other Pacific policy agencies.