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**A PACIFIC ISLAND REGION PLAN FOR THE IMPLEMENTATION  
OF INITIATIVES FOR STRENGTHENING  
STATISTICAL SERVICES THROUGH REGIONAL APPROACHES, 2010 – 2020**

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**Purpose of consultancy**

- Develop a long-term (10 year) Pacific Island Regional Statistics Implementation Plan (PRSIP) to implement Option 2 of the Strengthening Statistical Services through Regional Approaches: A Benchmark Study and Way Forward (Benchmarking Study) as endorsed by the Forum Economic Ministers Meeting (FEMM) in October 2009.
- The PRSIP will be a staged and prioritized implementation plan (with the option of 3 multiyear cycles).

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## Executive Summary

The FFEM-initiated Regional Statistical Benchmarking study was undertaken in 2008-2009, and it led to FEMM and CRGA endorsement of Option 2 of that study. This was judged to be the way forward to provide for more regional leadership of statistical developments and operations in the Pacific Island.

This current study was initiated later to provide a clear pathway for the action that is a consequence of the FEMM and CRGA decisions, in the form of a ten year implementation plan.

The consequences of a poor economic position, small population and the isolation of the PICT countries have been long recognised. That they lead to a simple lack of institutional strength underlies many reasons why Pacific Island countries acting alone will usually not be able to provide all the official statistics that they are expected to have, without some mix of development partner contributions, regional collaboration and support in a variety of forms.

The original FEMM initiative recognized that although the pressures for improvement are mostly at a country level, many of the solutions are regional. In this plan we have identified the key areas where a strengthened regional leadership of the Pacific Island statistical system could increase the impact of country and development partner initiatives. When adequately resourced, most Pacific Island countries have managed statistical collections in a timely manner, with high response rates, and at lower cost than anyone else can. We note the limited ongoing use of existing statistical collections and administrative sources by countries and the seemingly limited usability of collections that other have carried out in countries. We therefore judge the management and accessibility of statistical collections to be not adequate for providing the value that users rightfully expect from these national assets.

To draw on these opportunities to add considerably to the value that user get from statistics in the Pacific Islands, the statistical systems of Pacific Island countries need to use the information and communications technologies that are now common elsewhere. Access to a personal computer is simply not sufficient. The systems and tools of official statistics are well within the financial reach of Pacific Island countries, even though the overall resource base is comparatively small. We have proposed a significant shift in capacity here, but Pacific Island countries will have to accept that there needs to be common tools for common tasks, which they will need to collectively decide on.

The statistical collections and administrative records of Pacific Island countries would be more effective in supporting public policy were those data that were already gathered, or regularly collected, able to be managed in environments that supported their ready access, immediately after the reference period, through a production process scheduled in advance. Making the necessary advances in record management will be primarily an issue for the relevant Ministry to lead, most especially health and education, but many of the tools and systems needed for official statistics can be closely linked with administrative systems. There are examples of this already. The failure to manage existing collections and administrative sources in a way which can provide sufficient value to users is one of the most significant causes of the high demands placed on Island populations to

participate in statistical surveys of external parties which can be of little benefit to Pacific Island countries.

Given their very small populations, it will generally be more efficient to develop administrative sources and take a more strategic view of the population census in Pacific Island countries, yet the fragmentation of diverse user interests had taken countries down a higher cost path with fewer long term benefits because of a high dependency on a series of externally funded high cost statistical collections. The computerization of administrative process would provide a rich source of information for monitoring and developing programmes and policy, and usually the wider statistical benefits do need to be taken into account in cost benefit studies. These benefits are however quite large, and in the case of some administrative collections, such as those which record births and deaths, the statistical benefits alone may justify immediate development. The lack of a stock-take of collections has hindered any measured assessment of the opportunity cost of not investing in effective information management and archiving, but we would judge them as likely to provide the most significant pay back of any development opportunities.

A lot has already been achieved in the harmonization of statistical classifications and standards, with a lot more possible for survey documents, statistical reporting and classifications management. With a strengthened leadership at a regional level, much more could be achieved here. The European statistical system and the Caribbean statistical systems have highlighted the benefits that this could achieve. We have proposed a more regular “Standing Committee on Pacific Island statistical development” which will meet yearly or more often, and complement the three-yearly full meeting of chief statisticians and planning heads from each country.

Supported by background studies from countries, SPC and other centres, it is proposed that the standing committee will agree on a set of standard systems and tools that will be used across Pacific Island countries, whether by permanent staff, consultants or development partners.

The Pacific Island countries will always need some form of specialist assistance, as all are too small to contain the full mix of specialist skills. We have identified a process by which this might be assessed, enabling long term needs to be assessed.

These proposals are aimed at greatly increasing the value that users obtain from existing statistical sources. The Pacific Island countries face many diverse demands for information, and because of the present piecemeal approaches to resolving these uncoordinated needs, there is no easy means of developing a long term national statistical agenda, in any country. We have proposed that in understanding the economic base, health, education and employment, and environment and natural resources, countries develop a staged approach to advancing cross agency collaboration. A regional initiative would provide practical means of stimulating such collaboration.

The regional implementation plan establishes the scope of activities which would bring more value to the users of statistics from the resource base of the region if there were regional leadership in how they were managed. The plan seeks to stage the proposed initiatives, recognising both the limitations in the availability each year of resources needed for this work, and the need to meet particular goals in extending the scope and quality of the statistics that are available, particularly the MDG reports of 2015.

The future impetus for sustainable change among the statistical offices of the Pacific Island region will come from two directions. The first is the intensity of purpose that users bring to the use and usability of official statistics. The second will be the capacity for regional decision-making on common infrastructures, systems and tools, and the statistical infrastructures of harmonisation, in particular classifications, standards and methods, and in the instruments used in the collection and presentation of statistics. This implementation plan recognises that these forces will develop iteratively, and the development pathway places less emphasis on the intensity of purpose among users of statistics in the early phases compared to the later ones. The capacity for collective leadership is assumed to grow faster. Political commitment is the major catalyst for bringing about change in the purposeful use of statistics. Regional leadership will occur without this, but will most certainly be stimulated by the strength of regional actions and regional monitoring and analysis that is sought.

In looking at the system collectively, there are considerable opportunities to lift the scope and quality of statistics, through;

- **Focusing strongly on more immediate benefits to users**
  - *Users benefit through being able to have information which is relevant to the current public policy setting of the government, adapting statistics effectively to needs, and increased cohesiveness and integration*
  - *the strengthening of methodology and statistical practices , including providing a major, comprehensive set of economic accounts,*
  - *a coherent set of population statistics and derived measures of fertility and mortality*
  - *the analysis and application of official statistics, and in the use of statistics in public life,*
  - *Through integration of statistical sources, additional information is created through new statistical measures by increasing the fitness for purpose of statistics, better management of potential information sources, the integration of sources, and extended geography and analytical depth*
  
- **Approaches which get more out of the investments being put in place**
  - ***Process standardisation opportunities*** (*Common systems and tools, Reporting systems, Regional innovation management, Statistical reporting, International/regional infrastructures*) Leadership in Pacific Island region, commitments to innovation in the common applications of technologies, survey methods and analytical practices
  - **Investing in Pacific Island People in statistics** (Developing individuals, Maintaining skills, Extending specialisations, Regional support capacity)
  - **Co-ordinate the regional deployment of scarce specialist skills** that exists in centres of expertise in PIC NSOs, in SPC , PFTAC, the UN agencies and other significant partners, including Statistics New Zealand and the Australian Bureau of Statistics. Lead actions to

advance the availability of scarce specialist skills in both centres of expertise in the region, as well as from partner countries and contracted services.

- **Stimulate investment in improving systems for the management of administrative records in operational areas of government**
  - Identify specific benefits from effective access to administrative records in Pacific Island countries (Core series, Policy relevant applications, Impact on integrity of statistical base)
  - Enable ready access to records from a wide range of financial, economic and social administrative data
  
- **Ongoing technology driven improvements**
  - *access to official statistics through publications, internet services, research access to unit record data files, and professional leadership*
  - *Adoption of user access tools for population census and other geographic data, time series and micro-data*
  - *Using the access systems of the internet*
  - *using the web to provide free access and massively increase range of statistics available*
  
- **Approaches which add value from increasing the statistical uses of existing administrative sources, and increasing the ways in which different series can be related**
  - *Statistical harmonisation fundamentals (Classifications, Documentation, Methods, Questionnaires )*
  - *Statistical resource management*
  
- **Challenging and support of the ongoing operational processes of the statistical system**
  - *Advance commitment to realistic targets that balance production practicalities with the value that the statistics can contribute to informed decision-making*
  - *Capacity assurance( Statistical process installation, Specialist applications, Capacity supplementation, Managing external specialist engagement)*
  - *Co-ordination of big projects*
  - *Recognising and following operational and development pathways*

- **Approaches which bring consistency and order to the disparate and generally overwhelming variety of requirements placed on statistical offices**
  - *Structured implementation pathways (Specialist economic accounts, Demographic statistics, Health/Education statistics)*
  - *Regional leadership and authority (FEMM, GDDS, MDG,HOPs)*
  - *Policy/ statistics interactions (Policy focused statistical directions, Integration of UN/WHO/IMF requirements, Recognise SPC as integral part of country reporting chain, Country expert assessments)*

## **PART I: A Plan for the Pacific Island Statistical System**

### **1 The plan for an accelerated improvement in Pacific Island statistics**

#### ***1.1 Introduction***

The Pacific Island Benchmark study highlighted the significant range of advances that will be expected of statistical offices in the Pacific Island Region over the next decade. This FEMM initiative recognized that although the pressures for improvement are mostly at a country level, many of the solutions are regional. It also identified many areas where a strengthened regional leadership of the Pacific Island statistical system could increase the impact of country and development partner initiatives. The Pacific Island Plan establishes the need for a core set of statistics, and gives the mandate to ensure their effective production and access.

The benchmark study highlighted many fundamental limitations on what the countries of the region might achieve. The quality and nature of regional leadership will determine the relevance and breadth of regional solutions, and resource availability for ensuring the appropriateness of their application at a country level. This implementation plan was initiated as a consequence of the decision of CRGA and FEMM to choose option two of the recommendations. These provide chief statisticians, technical assistance bodies (particularly SPC, PFTAC, UNFPA) and development assistance partners with explicit initiatives that depend on continuing regional leadership, and which could achieve the intentions of the benchmark study.

An implementation plan reflects the best view at a particular point in time of what could be achieved, given an understanding of the resource base and the quality of the Pacific Island statistics, with some recognition that events and uncertainties will over time make invalid the original assumptions of the plan. In a region as diverse as the Pacific Island, there will be no ideal time to collectively agree on commitments for up to a decade ahead. In some countries, there are times when uncertainties appear to make planning irrelevant, but even in these situations, a plan signals the direction underlying decisions so that risks and opportunities are recognised.

Through good governance the relevance and authority of the implementation plan can be maintained, by the periodic revalidation of the key assumptions behind the plan, and the consequent adjustment of the plan.

This implementation plan recognizes that the most significant determinant of potential change right now will result from the collective authority of the head of the Pacific island statistical offices, and the success in this will stimulate a continually expansive attention from Parliamentarians and policy leaders, as they see an increasing added value from the official statistical system.

## ***1.2 Summary of plan goals in the three activity cycles of the period 2010 – 2020***

**2010-2014:** The plan proposes that over the first four years, the key focus will be on two separate strands of activity;

- **Actions that can be taken early which will influence future decision-making, by setting out some key principles and practices of the proposed Pacific Island statistical system**
  - a) Formalise processes for governance of regional infrastructure, and establish as organised unit by end of year 1, including regional leadership of harmonisation decisions, through establishing the Standing Committee on Pacific Island Statistics
  - b) Introducing Pacific Island region targets for the regular release of statistics
  - c) Strengthening policy and political engagement in statistical priorities
  - d) Initiate policy leadership processes for determining statistical priorities in Education, Health and Environment
  - e) Arrange access to administrative data. (Including birth and death registration, accounts of public sector activity, health and education. And environment)
  - f) MDG, GDDS standards attained where meaningful
  - g) Review of Pacific Island statistical legislation
- **Activities that need to be put in place in the first phase of this ten year plan.**
  - a) Review the structure and capacity of countries to meet the commitments they have already made in producing their statistics in a timely way, and build a development plan to capture the benefits from the activities in this regional plan that are adopted and appropriately resourced
  - b) Introduce selected systems for common use in managing both economic times series and population census by the end of 2010
  - c) Complete the building up of the statistical infrastructure that will be adopted by all countries:
    - i. Developing a relevant technology base for Pacific Island official statistical activity
    - ii. Making significant progress in putting in place selected region-wide statistical systems and tools, by competing systems for both capture and output of statistical data, and meta data management, with a priority on selecting those that can work on the 2010 round of censuses

- iii. Completing the 2010 round of population censuses, with a priority on using region-wide systems and tools
- iv. Increase effectiveness of systems for managing micro-data from existing collections,
- d) Continue the round of HIES, but stage it in such a way that activity is spread equally over a five year period.
- e) Longer term focus on investment in specialist resources
- f) Focus on expanded access to administrative records, including ensuring effective access to the administrative records of birth and death registration, external trade, public accounts and lists of taxed entities.
- g) Meet MDG reporting from both administrative records and statistical collections
- h) Training and development of Pacific Island statistical specialists

Throughout the development period, there will be an annual review of progress and achievements. In the fourth year, there will be a reassessment of the expectations of the following two phases, and such a review will be needed again at the end of year seven.

**2015-2017: the key focus will be on**

- a) Completing the implementation of region-wide statistical systems and tools
- b) Pacific Island Centre of Excellence in Innovation in Statistics and Technology set up in collaboration with USP
- c) Advancing policy agency relationships and understanding in health, education and employment, and environment.
- d) Widen the range of countries with economic accounts focused on timely GDP estimates

**2018-2020: the focus will be on:**

- a) Ensuring that the proposed Infrastructures will be adopted by all Pacific Island countries (Final replacement of systems in current use (2010))
- b) Strengthening of range of Pacific Island specialists employed in Pacific Island countries
- c) Increasing the analytical and reporting from official statistical collections
- d) Strengthening the capacity for Regional policies to be monitored
- e) Extending access to administrative records in all areas
- f) Looking ahead to innovations in the initially established infrastructures

## 1.3 Project List

### 1.3.1 Projects with Fastest Payback

Project	Timing	Cost	Cost range
Relevant ICT capability	1	8.6	"7-9m"
Common use of tools and systems agreed as Pacific standards	1	6.8	"5-10m"
Regional leadership of classification decisions	1	1.3	
Time series data management	1	0.8	
Census micro-data capability	2	0.5	
Small area statistics mapping	2	0.3	
Meeting expectations with common agreement on standard Pacific-wide targets for publishing	1	0.0	
Obtain agreement to have access to administrative records(staged).	1	0.0	

### 1.3.2 Projects with Payback over the whole decade

Project	Timing	Cost	Cost range
Use administrative records for statistics(staged) (Costs mainly incurred by Education/Health and other administrative programmes)	2	13.0	"10-20m"
Build exchange arrangements across Pacific countries	2	2.0	
Classifications management	2	0.2	
Country differences in the scope of the mandate.	1	0.0	
The Pacific mandate for statistics	1	0.0	

### 1.3.3 Projects with long term benefits well spread over the whole decade

Project	Timing	Cost	Cost range
Establish ongoing, scheduled technical assistance for specialist processes in countries, that are serviced on a regional basis	1	10.0	"5-12m"
Capacity supplementation of country NSO's through Pacific resource pool, including the periodic management of large projects	2	2.5	
Comprehensive regional microdata archiving capacity	2	2.2	
Pacific centre for innovation in statistics	2	1.0	
Outposted statisticians	2	1.0	
Innovation in Pacific applications of ICT and statistical practice (Pacific Centre)	3	0.9	
Leadership development	2	0.5	
Regional standard meta data	2	0.3	
The place of specialists in the statistics value chain	1	0.0	
Regional/ country specialist needs planning	1	0.0	
Statistical dataset documentation standards	2	0.0	
Specialist training and rewards	2	0.0	
Setting up of specialist professional groups	2	0.0	
Young professionals development	2	0.0	
SNZ/ABS support	2	0.0	
Partners in statistics	2	0.0	
Common standards of information accessibility supported by relevant systems	2	0.0	
Mandatory induction programme	3	0.0	
USP/ SIAP partnerships	3	0.0	

### 1.3.4 Projects with significant but uncertain potential gains

Project	Timing	Cost	Cost range
Reporting forms	3	0.0	
Questionnaire management	2	0.0	
The development of understanding among parliamentarians and Government officials	3	0.0	
Accreditation of specialists	3	0.0	
Legislation consistency	3	0.0	

### 1.3.5 Estimated cost profile \$(million) over the decade 2010-2020 of Implementation Plan Proposals

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Total additional resources</b>	2.95	6.25	6.55	6.2	4.75	4.75	4.75	4.25	3.75	3.75	3.75
<i>-Required by Administrative Agencies</i>	1.00	1.00	2.00	2.00	1.50	1.50	1.50	1.00	0.50	0.50	0.50
<i>- Directed at Statistical Offices and support agencies</i>	1.95	5.25	4.55	4.20	3.25	3.25	3.25	3.25	3.25	3.25	3.25

## 2 The project map in detail

### 2.1 The mandate for Pacific national reporting requirements

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Defining the Pacific mandate for statistics	The Pacific mandate gives clear direction to countries, and to the donor community, of the priorities that country statistical offices are working to, in the scope, quality, timeliness and accessibility of Pacific statistics. All countries need to regularly produce national minimum development indicators, and make them readily available. The indicators enable country comparisons and statistics of the region as a whole. They ensure that the MDG reporting and GDDS standards initially achieved by all countries are those most relevant to the Pacific	The Pacific region countries are unlikely to ever have all the resources needed for each country to have full access to specialist resources, in the full range of statistics assumed by the MDG goals and GDDS. In this plan we have sought to maximise what can be achieved in the medium and long term by the full set of resources available to the region for statistics. As such when comparing strategies and setting priorities, we have looked at the opportunity cost of inaction, to establish preferences. We assess there to be a large unused potential value to users from the existing collections and administrative data sources, and place most importance on increasing user value from this	The likelihood that collective decision-making can have the required authority is increased by the need for regional statistics, and the resource constraints the region faces. Opportunities from collective investments in common systems and tools can be seriously considered	<p><u>When</u> - Immediate,</p> <p><u>Why critical</u> - Ensures that common goals and expectations are shared by all in Pacific community</p> <p><u>Achievability</u> - Budget determines scope of activity that can meet required standards</p> <p><u>Sustainability</u> - Contingent on investment strategy, capacity supplementation</p> <p><u>Cost</u> - Will have an impact on the budgets of some countries that have not adequate resources for statistics.</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Manage country differences in the scope of the mandate.	All countries need to be able to carry out the necessary collection of information, and for those countries that are too small to maintain specialist skills for analysis and complex outputs, they will be always be supported in this.	Have a high expectation of regular, timely access to core national minimum development indicators, achieved through high response rates. At various times, most key statistics have been delivered in a timely manner, and this needs to become a managed, ongoing expectation of all key statistics, for all countries.	Region-wide investments, and the expectation of statistics about the region as a whole to monitor the Pacific Plan, will be able to be adopted in all Pacific countries, regardless of size	<p><u>When</u> - Immediate,</p> <p><u>Why critical</u> - By ensuring that common goals and expectations are shared by all in Pacific community, reduces amount of duplicate or one-off activity</p> <p><u>Achievability</u> - Budget determines scope of activity that can meet required standards,</p> <p><u>Sustainability</u> - Contingent on capacity supplementation, and country commitment to NSO</p> <p><u>Cost</u> - Meet within existing budgets</p>
Active management of partners in statistics	Policy Ministries will play a large part in enabling increased accessibility to administrative records, and in the quality of their management. For all statistical collections, National Statistical Offices need to become more vigorous at seeking and welcome content leadership from policy ministries, in the relevant field of statistics. In many fields of statistics, including more recent activity in Poverty and Environment, and in specialised areas such as Tourism, then	Development partners allocate a large share of development resources. Their commitment to the implementation plan will be a strong force for broadening the value obtained from the investments they make. Collection activity by development partners not only risks reducing the resource base of the NSO for existing statistical commitments, but it may also remove the policy Ministry for giving advice on content and cutting out the policy Ministry interaction with the NSO.	The development resources available to the Pacific region will have the most significant impact on the value that is placed on official statistics by users in the region and elsewhere	<p>When - Immediate</p> <p>Why critical - Ensures that the value of statistics is reflected in the commitment of resources and priority given to the management of administrative records that have high statistical value.</p> <p>Achievability - Will depend on the place of the NSO head in the administrative leadership of the country, and the willingness to engage.</p> <p>Sustainability - Requires considerable personal attention at CE level, and well supported engagement at a working level</p> <p>Cost - within existing budgets</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
	<p>where there is insufficient policy Ministry leadership this will undermine the value to users of any work by the NSO.</p>			
<p>A firm base for statistics from the use of administrative records</p>	<p>The Pacific region has a large endowment of statistical sources, either from survey collections done by countries or donors, or from administrative sources. This endowment has much potential to be better managed so that users obtain much more value from it. We judge that providing effective access to the existing statistical sources of countries will add value to users that will be significantly larger than the costs of doing so. Indeed, we see the opportunity costs of not doing this as a continual series of high cost donor run surveys, not all of which are even accessible from within the targeted</p>	<p>It may be possible to avoid carrying out some statistical surveys, or to enhance the quality of others, or to generate new analyses, from having the existing potential statistical base always available in a timely manner. Once obtained, it will always cost less to produce timely statistics regularly, than to do so with some delay. It may be possible to avoid carrying out some statistical surveys, or to enhance the quality of others, or to generate new analyses, from having the existing potential statistical base always available in a timely manner. Once obtained, it will always cost less to produce timely statistics regularly, than to do so with some delay.</p>	<p>The statistical benefits from administrative sources will be invaluable in managing policy in health, education, justice and welfare, and in managing the economic base of countries. Large scale household surveys will be fewer, and overall the resources used in statistics will provide a much wider and more relevant access to information about populations and businesses in the Pacific</p>	<p><u>When</u> - immediate  <u>Why critical</u> - Accessibility of a large amount of sector specific information current held about the quality of services, accessibility and effectiveness. Also brings more exact knowledge of the population base and economic base, not available elsewhere.  <u>Achievability</u> - Requires administrative, legal and political agreement, and investment in information management. Legislation needs to change to reflect enable statistical use of records.  <u>Sustainability</u> - Once established, ongoing management of access agreement required.  <u>Cost</u> - (High) Ongoing investment will be required, with benefits achieved incrementally, with gains to public administration as well as statistics.</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
	<p>countries. Administrative sources contain much relevant information, but in general administrative records are stored rather than managed, despite their potential not only for statistics, but in enhancing public administration. When information is available, its accessibility may be seriously delayed by legislative approval practices.</p>			

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Leadership in advancing the scope for successful innovation	The emerging fields of statistics will severely challenge existing practices, because of the volume, scope and immediacy of recording that is involved. This challenges traditional methods of presenting results, as multidimensional mapping contrasts with two dimensional tables. Accessibility that matches the best commercial operation is demanded, and the capacity to integrate statistical outputs into business processes is increasingly matched by an expectation that statistics forms should be prepared automatically from business systems.	Innovation needs to be based around existing good practice, and relevant tools. Sound information management underpins the capacity to gain from the high degree in the presentation of statistical data, and its collection. What is highly relevant for the Pacific countries is the capacity to bring about Pacific wide innovation, from those innovations in practices and systems that have been shown to bring significant benefits in one of the Pacific countries. The capacity to innovate at a country level is visible now. The regional leadership to innovate at a regional level needs more than exists at present.	Official statistics are highly dependent on information and communications technologies. Advances in technology in all stages of the statistics value chain continue to have a huge impact on the value users get from official statistics. In many field of endeavour, both public and private, innovation in ICT reflects the technological infrastructures of the Pacific region. The capacity to adopt innovations in systems across the region will be significantly uplifted by the plan. The current approaches to innovation in the region involve project by project uplifting of practice, which is inadequate given the speed of change possible	<p><u>When</u> - Set up as soon as practical</p> <p><u>Why critical</u> - Leadership is needed to reach agreements about how innovation will spread across Pacific statistical systems. When will the benefits from innovation in processes in one country justify their adoption in other countries of the Pacific? There remain many lost opportunities from poor transmission of successful innovation.</p> <p><u>Achievability</u> - Impediments are mainly managerial, yet the benefits will at times be substantial</p> <p><u>Sustainability</u> - Will be more sustainable as momentum of collaborative processes creates expectations of Pacific-wide systems</p> <p><u>Cost</u> - Regular forum for exchange of practices, and support for Pacific Centre for Innovation in Technology and statistical methods will require modest annual support, of approximately \$100,000 per year.</p>

## 2.2 Operational stability, regional collaboration and support

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
<p>Supplement capacity of country NSO's through Pacific resource pool, including the periodic management of large projects</p>	<p>Provide function in secretariat set up to support the proposed Standing Committee of national Statisticians, to manage the transfer of support when statistical delays affect the long term statistical performance in a country</p>	<p>Set up now Small resource with significant impact</p>	<p>Ensure that the leadership on regional issues by Country statisticians is fully supported.</p>	<p><u>When</u> - Set up as soon as practical  <u>Why critical</u> - The small size of most Pacific NSOs makes them vulnerable to changes in activity levels, staff loss or other problems. The capacity to catch up is poor. More immediate responses may be beyond the resources of the NSO, but manageable as a regional resource problem. Increasing need to ensure continuity of key country indicators for regional measures and comparisons  <u>Achievability</u> - Support may not be successful if country leadership not also responding to causes of NSO failure  <u>Sustainability</u> - Will become difficult to sustain if problems affect several countries at the same time  <u>Cost</u> - Have fund to replace resources borrowed to solve problem. Under \$100,000 per year</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Build exchange arrangements across Pacific countries	Use Standing Committee secretariat to support and manage actively the exchange of specialist knowledge among Pacific region NSO's. Provide funding each year for cost neutral transfers of 8 person years, for 25 assignments of up to 3 months.	<p>The demand for specialist resources across the region will outstrip supply, and the wider use of country expertise would be a relatively lower cost means of expanding the available resources.</p> <p>The funding would meet the opportunity costs to countries lending resources</p>	<p>Increase available specialist resources</p> <p>Would increase speed of transfer on new approaches across countries</p>	<p><u>When</u> - Immediate,  <u>Why critical</u> - The Pacific region countries have exchanges among themselves that could be extended if some capacity to backfill posts existed. They significantly increase the resource base, as well as increase the take up of new ideas across the Pacific.  <u>Achievability</u> - Main constraint is funding to backfill positions, but also the limited availability of people with credentials for such work.  <u>Sustainability</u> - Can be maintained as long as resources available Will reduce longer term costs of technical assistance from outside of region, and increase retention of skilled staff.  <u>Cost</u> - Estimate capacity for the next five years at 15 3 month assignments, costing \$100,000 per year.</p>
Establish ongoing, scheduled technical assistance for specialist processes in countries, that are serviced on	<p>Establish demand for permanent, annual supplementation of particular specialist fields, depending on scale and staging of statistical developments.</p> <ul style="list-style-type: none"> <li>• Annual demographic</li> </ul>	<p>The balance of work of specialist technical assistance will shift towards the ongoing production of specialist accounts and reports, the release of which will be signalled in advance.</p> <p>The scheduling of this will reinforce current efforts to provide continuity in technical</p>	<p>A strengthened capacity will ensure that agreed targets will generally be met by maintaining and increasing capacity to schedule technical assistance.</p>	<p><u>When</u> - Immediate  <u>Why Critical</u> - Structured approach to managing impossibility of countries employing the mix of specialist skills necessary for official statistics  <u>Achievability</u> - Limited by the general shortage of specialists in country statistical offices, and the range of experienced consultants.</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
a regional basis	reports <ul style="list-style-type: none"> <li>• Annual economic accounts</li> <li>• New Statistical processes</li> </ul>	assistance.		<p><u>Sustainability</u> - The only practical solution to extending the range of regularly produced statistics by Pacific countries as a whole.</p> <p><u>Cost</u> - 12 internationally recruited consultants, approximately \$3 million/year. 2/3 already included in existing SPC/ PFTAC budgets</p>

### 2.3 Harmonisation, - quality, scope, future targets - cost, quality of economic, demographic accounts

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Regional leadership of classification decisions	Processes for reaching regional agreement on classifications and definitions, and identifying classifications of special interest to the Pacific.	Ongoing processes/ meetings for establishing consensus. Establish as a function of the proposed standing committee of heads of NSO's. Absorb within meeting costs A high level of success in some areas could be achieved across the region	Strengthen harmonisation of statistics across the region. Ensure adoption of standard classifications into administrative collections. Provide leadership in common questionnaire content, statistical reporting and meta data management that reinforces gains from harmonisation. Manage region responses to changes in international classifications and standards. Ensure that harmonisation is reinforced by region-wide systems and tools introduced as a consequence of this plan.	<u>When</u> - Immediate <u>Why Critical</u> - Systematise decision-making re Pacific –wide classifications, strengthening harmonisation of statistics, and ensuring all new surveys adopt standards. <u>Achievability</u> - Done now in key areas <u>Sustainability</u> - easily continued once process established <u>Cost</u> – Within existing budgets

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Classifications management	Develop repository of agreed Pacific versions of international classifications, and allocate responsibility for sharing classification maintenance to larger countries. Accumulate known harmonisation needs and obligations on countries in a harmonisation plan, including managing revisions to classifications and definitions.	Ongoing project with a significant up front development project. Ongoing activity that can be allocated to countries.	Single investment for all Pacific countries to enable rapid access and transfer of classifications to systems and tools. Ensures consistent decisions, application of presentation standards, user documentation.	<p><u>When</u> - Soon as possible</p> <p><u>Why Critical</u> - Necessary for meta data driven systems</p> <p><u>Achievability</u> - Adopt system working elsewhere There are no special Pacific characteristics that require a separate locally developed tool</p> <p><u>Sustainability</u> - easily continued once system installed.</p> <p><u>Cost</u> - Donor investment, with benefits captured in strengthened harmonisation, rapid adoption of standard output systems. Work done once that benefits all countries.</p>
Regional standard meta data and documentation	Adopt a common system for documentation, alongside classifications management system. Find existing facility, or look on Google or similar as common resource, to enable easy access in the public domain.	The cost of country specific documentation is disproportionately high for small countries, and unnecessarily repetitive, given harmonisation.	Single investment for all Pacific countries to enable rapid access and transfer of documentation to users.	<p><u>When</u> - Soon as possible</p> <p><u>Why Critical</u> - Single repository prevents duplication, and brings consistency.</p> <p><u>Achievability</u> - Adopt system working elsewhere There are no special Pacific characteristics that require a separate locally developed tool</p> <p><u>Sustainability</u> - easily continued once system installed. Requires some ongoing overhead</p> <p><u>Cost</u> - Within budget of existing NSOs and SPC</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Questionnaire management	Ongoing activity to harmonise questionnaires to simplify country development activity, consistent with country needs. Use population Census approach as model.	A continuing project, reinforcing existing direction of SPC work. Management of questionnaire repository As an early project, it will simplify the transition to more advanced systems and tools	Reinforce harmonisation initiatives and common systems and tools by adopting instruments with many common elements	<p><u>When</u> - Soon as possible</p> <p><u>Why Critical</u> - major harmonisation activity</p> <p><u>Achievability</u> - Requires commitment and responsibility to be recognised</p> <p><u>Sustainability</u> - easily continued once recognised. Requires some ongoing overhead, to obtain initial consensus on common approach</p> <p><u>Cost</u> - Within existing budgets, and part of budgets of any new statistical sources, or of developing administrative sources</p>
Legislation consistency	As part of longer term assessment of Pacific statistics legislation, assess the fit of current legislation with needs of regional harmonisation	Needs consideration during the course of the plan, as noted in leadership actions.	There would be consistency in the legislation across Pacific countries which reflected the need for access to administrative records, the obligations to protect confidentiality while providing appropriate access, and recognised the special role in statistical production of the SPC and PFTAC	<p><u>When</u> - within the next 4 years</p> <p><u>Why Critical</u> - legislation needs to reflect the nature of Pacific systems, and the regional country balance of decision-making. May be needed to extend administrative data use, and micro-data access</p> <p><u>Achievability</u> - Requires agreement by each country – may be difficult to achieve in a reasonable time frame</p> <p><u>Sustainability</u> - Requires one action only</p> <p><u>Cost</u> - Within existing budgets</p>

**2.4 A high priority for management of existing statistical resources to generate a significant potential uplift in value from existing statistics**

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Common standards of information accessibility supported by relevant systems	Standards include systems, documentation, access rules, confidentiality protection.	Development project needed to define above project. Minor adjustments as experiences grow	Common standards of information accessibility will enable the systematisation of the transfer of micro-data and statistical aggregates, because of the volume of transactions, and the need for high speed exchange of information through user driven processes.	<p><u>When</u> - immediate</p> <p><u>Why Critical</u> - need to ensure that all future collections meet Pacific standards, as part of contractual obligations</p> <p><u>Achievability</u> - Requires agreement by each country – may be difficult to achieve in a reasonable time frame</p> <p><u>Sustainability</u> - Requires one action only</p> <p><u>Cost</u> - Within existing budgets</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Relevant ICT capability	The benchmark study wrongly related ICT capability to PC numbers. In general, while NSOs in the region are seriously under-equipped, this is obscured by pockets of innovation. The management of the existing statistical database reflects the quality and relevance of the ICT systems available, and the support for their ongoing use, including training and expert assistance, as well as the ease of integration of new systems into established processes. Ensuring that statistical offices have tools that are currently in common use is no longer a major budget issue, yet strategies for uplifting the technology base will involve much repetition unless there is a high degree of regional collaboration.	Define necessary ICT environment for NSOs (at several different levels of activity), in order to provide common basis for business cases. This will be about three months, by a team involving SPC, the largest NSOs, and a relevant consultant.	There will be a rapid and broad based reduction in the value of lost benefits from Pacific statistics because of the inadequate systems and tools used in both statistical collections and managing administrative records.. The capacity to adopt user access systems common in richer countries, at a low cost, can be exploited once the technology base is advanced. There is a need for a continuing development path for Pacific statistics which is not there at present.	<p><u>When</u> - immediate</p> <p><u>Why Critical</u> - The ICT systems available to Pacific statistical offices do not provide the functionality now available for official statistical processes, within the budgetary resources available for Pacific statistics. Most particularly, the management and accessibility of collected information could be changed to add significant value to the benefits users get from Pacific statistics. Innovation in processes is severely stifled by existing systems, as is the capacity to integrate statistical outputs with the systems users work with, to automate the transfer of information to them.</p> <p><u>Achievability</u> - Proposal would use only well established systems and tools, preferably open source</p> <p><u>Sustainability</u> - The establishment of common Pacific approaches will simplify their downstream replacement</p> <p><u>Cost</u> - Beyond existing budgets, but will obtain significant leverage from individual investments. Estimated at \$500-750,000/year for the next 3 years.</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Integrate the management and access to administrative records into the official statistical system.	Administrative records are like all statistical collections. They need to be available, organized, validatable, accessible, summarisable and released. Expect major gains in the information released about health, education would be initial target for ensuring consistent access across the Pacific to records. Implementation of common methodologies will be somewhat constrained by some of the unique attributes of any administrative source. Need to consider common standards for transferring information regularly between departments.	Very large scale project involving major departments in most countries. Scoping exercise required in all countries, to compare cost and benefits of transforming departmental information management. A business case would be prepared for each record set, and resources for business cases, and contingency for initial proposals put in plan. Assume each business case involves 3 person months.	Official statistics in Pacific countries cannot make use of most of the significant sets of administrative records through poor information management, legal impediments, and insufficient expertise. An increasingly larger share of administrative records will be available for statistics, policy analysis and research, reducing the need for some high cost collections run by international development partners.	<u>When</u> - immediate <u>Why Critical</u> - legislation needs to reflect the nature of Pacific systems, and the regional country balance of decision-making. May be needed to extend administrative data use, and micro-data access <u>Achievability</u> - Requires agreement by each country – may be difficult to achieve in a reasonable time frame <u>Sustainability</u> - Requires one action only <u>Cost</u> - Within existing budgets
Statistical dataset documentation standards	Align with harmonisation activities, for documentation of statistical datasets. Adopt practices used elsewhere (e.g. UK ESRC data archive)	One off activity. Suggest seek advice from UK ESRC data archive, perhaps as partnership and potential support from DfID.  Overall will reduce the costs of managing information, but the increased ease of accessibility will not be captured in cost savings	Have common standards for ease of preparation and access to documentation	<u>When</u> - As soon as possible <u>Why critical</u> - This is especially critical in the Pacific where many partners and short term contractors are involved in documenting datasets for later use by others. <u>Achievability</u> – Adopt an existing standard <u>Sustainability</u> - requires ongoing

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
				<p>managerial vigilance, and periodic audit, to maintain as common way of working.</p> <p><u>Cost</u> - Will have an impact on the budgets of some countries that have not adequate resources for statistics. There is a need to bring existing documentation into the new standards</p>
<p>Comprehensive regional micro-data archiving capacity</p>	<p>Upgrade existing capacity to a stable custodial environment for major statistical datasets, where research use will continue after official statistics prepared. This should become an obligatory environment for all surveys carried out by donors or others. Initial focus on household surveys and censuses, then business surveys, then administrative records.</p>	<p>Project establishing custodial environment for Pacific survey datasets. Delay will increase costs of capturing past records. Continuing activity, carried out alongside related tasks. Initial priority to census micro-data from the 2006-2015 census round.</p>	<p>Analyses and research applications to fit policy questions and concerns faced now by countries will be enabled by the wider accessibility of Pacific statistical collections using contemporary standard systems and tools.</p>	<p><u>When</u> - Within the next 12 months.</p> <p><u>Why critical</u> - . <u>Achievability</u> – Build on existing SPC activity. Statistical offices are not meeting many critical needs to access statistical collections at a reasonable cost.</p> <p><u>Sustainability</u> - Requires ongoing management resources to maintain the integrity of the environment where records held Develop partnership with major archiving group (UKDA) to keep up with practices in common use</p> <p><u>Cost</u> - Will need to initially extend existing budgets by some \$50,000 per year.</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Innovation in Pacific applications of ICT and statistical practice	Continued technological innovation and advances in ICT infrastructures (e.g. mobile phones) brings in considerable opportunity to improve processes, which conflicts with the preference to keep systems that work even when they are out of date. The areas of most significant change are in data collection, and in output systems, where innovation can lead to new services more like commercial activities. Innovation in health monitoring and fishing management, for example, highlight advances of immediate relevance to official statistics in the Pacific.	Reinforce collaboration among Pacific NSOs, SPC, academics and other fields of service provision by government, through a small centre which will have as its members those who contribute and gain from innovation in ICT and statistical methods. Set up as a contractual arrangement with USP. Base this work on workshops and collaboration in research projects	Create a capacity for system wide innovation, so that Pacific statistics will continually be collected and made available using tools and systems common in advanced areas of information use in the Pacific.	<p><u>When</u> - As soon as possible</p> <p><u>Why critical</u> - There are many innovations involving monitoring and the transfer of information in the Pacific in fields other than statistics. These will often be highly relevant to official statistics, especially when they are in areas of public activity that usually involve more advanced technological investments than the statistical offices can afford.</p> <p><u>Achievability</u> – reduces risk of experimentation, through drawing on successful innovation elsewhere. Capacity to test innovative ideas before application in relevant settings. Depends on quality of relationships between partners in proposed Centre</p> <p><u>Sustainability</u> - will require small ongoing funding, and continued capacity and commitment of USP and other partners to maintain arrangement.</p> <p><u>Cost</u> - Will require funding of perhaps \$50,000/ year</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Meeting expectations with common agreement on standard Pacific-wide processing delays in publishing	Listing of selected good practice in maintaining timeliness of statistical releases enabling a Pacific standard to be based on country experiences in the Pacific.	Establishment of reasonable targets for immediate adoption by HOPS.	<p>There will be an outcome will be a very clear basis for user expectations of the availability of statistics, and a capacity to plan for their application immediately they are available.</p> <p>This will have a significant impact on the value of statistics to users The standards will enable less overlap in survey operations, and create a greater opportunity for ongoing quality improvements</p>	<p><u>When</u> - Immediate <u>Why critical</u> - Uncertainty about availability and forms of release of statistics significantly reduces their value to users. Expectations of release targets should reflect the conditions that pacific countries work in. Delays beyond these reasonable targets reduces the overall value users will ever obtain from the collection <u>Achievability</u> – All targets have been achieved in several different NSOs for a significant period <u>Sustainability</u> - Once achieved, maintaining timeliness requires the management of fewer active statistical datasets, and respondent enquiries bring constructive responses. Indirect impact on staff motivation brings large intangible benefits to process quality. <u>Cost</u> - Could require one-off funding to clear backlogs, perhaps \$150,000 in the first two years.</p>
Reporting forms	Develop templates for simplified, rapid reporting of statistical information in key common areas. (To be listed)	The templates will enable an improvement in reporting forms through a series of pacific wide initiatives	The depth of reporting and its reliability will be able to be continually enhanced in each country, with much fewer specialist resources. A larger share of the preparation of analytical	<p><u>When</u> - As soon as possible <u>Why critical</u> - Statistical releases can make it easier to identify the most useful new information that the release provides. <u>Achievability</u> – All targets have been achieved in several different NSOs for</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
			<p>reports can be done by competent non-specialist staff.</p> <p>New reports can be developed with limited resources.</p>	<p>a significant period</p> <p><u>Sustainability</u> - Once achieved, maintaining timeliness requires the management of fewer active statistical datasets, and respondent enquiries bring constructive responses. Indirect impact on staff motivation brings large intangible benefits to process quality.</p> <p><u>Cost</u> - Could require one-off funding to clear backlogs, perhaps \$150,000 in the first two years.</p>

## 2.5 Management of common statistical systems and tools

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
<p>Common use of tools and systems agreed as Pacific standards</p>	<p>In having common systems there is a gain not only in assessment and purchase arrangements, but with common implementation there will be simplified servicing, training and support, as well as downstream in replacement. Adopt shareware where practical. Possibly higher upfront investment will be offset by avoiding multiple costs with every country. Seek long life systems. Establish Pacific project group to establish preferred systems in selected areas, update with annual rethink.</p>	<p>Support working group over 4-8 week period each year. Additional resource of 3 months / year to develop business cases. Budget unclear but assume \$.5million for 3 years. Allow 3 times purchase cost for implementation. A more pragmatic approach to data management could be offset by early investment in a system for classifications management.</p>	<p>Collection, processing and output systems in Pacific countries can be upgraded in a short time period, at a reasonable cost. Statistical operations can be supported by technical expertise located within Pacific countries, at reasonable cost. Training in systems and tools will be simplified, and skills made portable by the use of common systems and tools.</p>	<p><u>When</u> - By end of 2010  <u>Why critical</u> - Many of the systems used in Pacific statistics are not able to support the processing or accessibility of statistics in forms that can bring about increases in the value of statistics to users.  <u>Achievability</u> - Partial success will have a major impact on the value users get from statistics. Will be easier to achieve with output systems and input processes, because the rate of change in these areas has more obviously made existing systems obsolete.  <u>Sustainability</u> - The range of consultants and extent of donor activity will place any strategy for common systems under pressure, and the best way of marching this will be to monitor compliance regularly  <u>Cost</u> - Will require an investment of perhaps \$500,000/ year for three years, then half that. This could be staged differently</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Time series data management	Install standard time series system in each NSO, copyable to Treasury, Central Bank updated online,. This would be main release system for all statistical time series. Initial setup would be simplified by establishing common Pacific identifiers, but would require extensive transcription, that could be staged over many periods. Could start initially with perhaps 10,000 series.	One off project to select system, with regional project team setting up common identifiers, then local activity. Some support to SPC could transfer info from PRISM. There would be early gains in access quality by all key government users, and international reporting obligations	A time series repository common among statistical offices could be placed in the country Central bank , Planning Department and Treasury. Key users would have immediate access to all available time series, Statistical reports could be prepared from the time series database, so it was a key part of the statistical process. The time series database could be used as the national accounts processing system.	<p><u>When</u> - Immediate</p> <p><u>Why critical</u> - Information transfer of time series to users involves significant personal intervention. A simple, commonly shared database system would enable users to obtain access themselves, and to browse for available information. The time series system would replace spreadsheets in the production of economic accounts in countries.</p> <p><u>Achievability</u> – There are existing systems that could be obtained. Seek a non-commercial arrangement. Requires a one off effort to establish series metadata, and database system structures, that could be replicated for each country. The central management of the system would be essential given the great variety of information sources.</p> <p><u>Sustainability</u> - Once established, the users pressure will establish a strong drive for timeliness and quality assurance.</p> <p><u>Cost</u> - Could require one-off funding to set up, then perhaps one person each year to manage.</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Census micro-data capability	Make census micro data a high priority for initiatives to more effectively manage the statistical database. Despite significantly harmonised questionnaires, each country census will require individual set up. Select rapid enquiry tool best suited to population census information. For example, the Space-time systems provide an excellent example of what is now possible, and could be easily supported by a mix of regionally trained experts, and SNZ and ABS staff.	Urgent need to select and install tools and set up census repository, but critical that it is included in wider micro data archiving activity. Initiate immediate trial of Space-time tools on the last census of a particular Pacific country. (ST used by SNZ for some 20 years)	Users could have instant access to census tabulations, and have the same information presented as maps. The tools would be user driven With a common tools, the support could be established locally, for all countries.	<p><u>When</u> - Make decision by September 30, to put in place by June 2011.</p> <p><u>Why critical</u> - Census access currently requires expert support. This limits the overall accessibility of censuses, and prevents access by many communities. Rapid access to user determined analyses would increase significantly the value users get from censuses. The use of the census could increase by over ten times current level.</p> <p><u>Achievability</u> – There are existing systems that could be obtained. Seek a non-commercial arrangement. Requires a one off effort to establish relevant metadata, and database system structures, that could be replicated for each country.</p> <p><u>Sustainability</u> - Once established, the users pressure will establish a strong drive for timeliness and quality assurance.</p> <p><u>Cost</u> - Could require one-off funding to set up, then perhaps one person in one office or in SPC to be trained as a local expert.</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Small area statistics mapping	Select and install small area mapping tools for countries supported by digitised geography. Facilitate information conversion, training and expert support to wider user community in service ministries and local government	Benefits obtainable immediately from countries with censuses completed, and for rapid implementation as countries complete censuses currently in train.	Common mapping system will enable the direct and indirect costs to be shared among countries, increasing the scope of mapping available in a short period.	<p><u>When</u> - Make decision by September 30, to put in place by June 2011.</p> <p><u>Why critical</u> - The current census round is providing information which may be best presented in maps, alongside other geographic information (infrastructures, topography) Currently this activity requires expert support. This limits the overall accessibility of censuses, and its access by many communities. Rapid access to user determined maps would increase significantly the value users get from censuses.</p> <p><u>Achievability</u> – There are existing systems that could be obtained readily. Seek a non-commercial arrangement. Requires a one off effort to establish relevant metadata, and database system structures, that could be replicated for each country.</p> <p><u>Sustainability</u> - Once established, the users pressure will establish a strong drive for timeliness and quality assurance.</p> <p><u>Cost</u> - Could require one-off funding to set up, then perhaps one person in one office or in SPC to be trained as a local expert.</p>

## 2.6 Pacific-wide ongoing professional development for statisticians

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Leadership development	The Heads of NSOs need both professional competence and managerial skills, but also some entrepreneurial aptitude given the high unrealised potential value of the statistics they manage. This mix of skills rarely arises naturally. Both personal development and thoughtful selection of deputies is one known way of making this possible in the NSO leadership team.	New Chief Statisticians should attend a leadership programme at an established management centre within 12 months of taking up the post, if not before. The leadership team in the larger statistical offices should have someone at the top two levels who is expert in economic statistics, and someone in population/ social statistics.	Chief statisticians and senior statistical staff will have the personal and professional competence to lead the demanding mix of development and regular statistical activity in the NSO.	<p><u>When</u> - Put in place by December 2010.</p> <p><u>Why critical</u> - The chief statisticians of the region have a great variety of roles, and considerable change to manage. The skills to achieve this will draw on both their professional qualifications and experience, as well as personal development initiatives. Such initiatives need to be established as part of a recognised development strategy for people in leadership roles.</p> <p><u>Achievability</u> – There are many well tested approaches, and well regarded management centres. Will mainly rely in encouragement, which will vary across countries.</p> <p><u>Sustainability</u> - Once established, the expectation will establish a strong place for this.</p> <p><u>Cost</u> - Would require specific funding, as unlikely to come from existing budgets. Assume some \$100,000 over 3 years.</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Young professionals development	<p>There is an increasing share of graduates in the new recruits to Pacific statistical offices. The development and retention of young professionals needs to improve, if this shift is to have a lasting impact. Turnover reflects the challenge in the work, the quality of the systems and tools, and their involvement in change. Stimulating exchanges with other agencies, secondments to the Statistical offices of Australia and NZ, and further education involving job related research will bring some satisfactions relevant to retention. Differential employment conditions across government agencies most often undermine the capacity of the statistical office to provide working conditions which attract the best people, who inevitably look at the conditions in other state departments.</p>	<p>The management of young professionals needs ongoing interest, (note and may be better recognised as a regional than country issue. Training is of consequence as is salary, the work mix and its challenge.</p>	<p>The key outcomes would be recruiting a larger share of statistical and other quantitative graduates into official statistics, and secondly to increase their retention rates</p>	<p><u>When</u> - Put in place by march 2011  <u>Why critical</u> - High loss rates for young graduates cancels out the value of training initiatives, and destroys development culture. Risk that specialist work cannot be transferred from consultants. Systemic pay gaps will not be addressed unless strong interest in developing young professionals. It would be difficult to manage any programme to develop a future workforce without considerable attention here.  <u>Achievability</u> – This is a fraught area, and even if at best the effort reduces attrition that will be of value.  <u>Sustainability</u> - Even small success can be satisfying, and stimulate further initiatives  <u>Cost</u> - Difficult to assess, but could look at \$100,000 over two years and evaluate results</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
USP/ SIAP partnerships	The specialist training bodies in the region have been redeveloping their content, delivery and certification approaches. A round table among partners in training with some NSO heads should lead to an agreed strategy for accelerating these advances, especially if the pacific centre for innovation in Pacific applications of ICT and statistical practice becomes established in a reasonable time.			<p><u>When</u> - During 2011</p> <p><u>Why critical</u> - The resource base for training is comparatively small given the demand. The fit of courses to need will increase the value obtained from courses, and stimulate innovations that increase effectiveness of delivery, and extend their reach.</p> <p><u>Achievability</u> – Discussions suggest that there is a high receptiveness to adapt training, and potential for increased effectiveness of how resources are used.</p> <p><u>Sustainability</u> - Requires key people to remain interested</p> <p><u>Cost</u> - Within existing resources</p>
The development of understanding among parliamentarians and Government officials	Parliamentarians and public officials are frequently exposed to official statistics, yet they rarely experience an informed introduction to one of their most important resources.	Need long term training strategy. (Lack of other support facilities places greater need for statistical training) An informal group of ex Ministers, public officials and statisticians should identify some activities that could later evolve into a more systematic programme. This could be started now. Ensure that Parliamentarians are included in new release mailing lists.	The development of interested and statistically informed political representatives, as a powerful force for the advancement of statistics. The capacity to provide an information base to inform those who have a vision of the future, and need to put in place policies to achieve that which reflect the characteristics of society in the future, and the context	<p><u>When</u> - Start during 2011</p> <p><u>Why critical</u> - Parliamentarians in their various roles are key users of statistics, but with limited time and training they need opportunities to develop their understanding that reflects both these constraints, and the future importance on the decisions that they will make.</p> <p><u>Achievability</u> - Requires good will and interest that may need to be developed</p> <p><u>Sustainability</u> - Will be most satisfying if successful, and generate its own</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
			within which its people will live.	momentum <u>Cost</u> - Done within existing resources
Setting up of specialist professional groups	PINNACLE was established by PFTAC for national accounts experts of the region. Other groups are being set up. The model has relevance in other areas of statistics, and could form a way of reinforcing relationships among statistical specialists, regardless of which Ministry they are in.	The specialist groups could be a vehicle for establishing longer term links with ABS and StatsNZ.	Establish and sustain a stronger specialist leadership, given the spread of experts into small, often one-person groups in the larger countries of the Pacific. Increase likelihood of retention, as skills continue to develop	<u>When</u> - During 2011 <u>Why critical</u> - A major potential contributor to increasing the range and depth of specialist skills available to develop Pacific statistics <u>Achievability</u> – Already working <u>Sustainability</u> - requires continued vigour and interest by a leading specialist in the region <u>Cost</u> - Some payment of transport costs may be required
Mandatory induction programme	In house training programme, organise at SPC, USP or by extension Have regularly.	Regional approach because of numbers	The implementation of more advanced systems and tools, and more relevant technology will change the processes that all staff are involved in. Staff will be trained in the effective use of the changed processes. New staff have a common understanding of statistical processes and practice.	<u>When</u> - Introduce by end of 2011 <u>Why critical</u> - Need to find economical process for providing basic skills to all new recruits, using contemporary learning methods <u>Achievability</u> – Would draw on existing practices successful elsewhere <u>Sustainability</u> - requires a strong commitment to ensure not crowded out <u>Cost</u> - May need some startup, but should be in existing budget, except for trainers

## 2.7 Specialist / expert support

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Establish the long run place of specialists in the statistics value chain	In all the statistical offices of the region, some specialist skills are likely to be regularly needed from elsewhere. In the smaller offices, this will usually involve specialist skills needed to support survey design and analysis of information. As statistical offices expand the scope of their analytical activity, the demand for specialist support will be increasingly focused on economic accounts, health and education reporting, with demographic remaining vital.	Quantify the mix of key specialist activities, and develop a regular support programme. Adopt general practices of long term contractual engagements, Where specialists exist in countries, they need to become available as regional resources, with appropriate resource transfers. Develop long term contractual arrangements with accredited consultants, to bring continuity in advice, and stimulate ongoing developments. Ensure consultants can reinforce skills in core systems of the region.	Taking a region-wide view of the deployment of specialists will enable their engagement to be scheduled their effectively. Flexibility to draw on all sources of specialist support will be enable the range of regularly prepared specialist accounts and measures to increase during a demanding development period	<p><u>When</u> - Begin as priority</p> <p><u>Why critical</u> - All activities are dependent on specialists. The supply in the region will be less than needed for most of the 10 year period of the plan,.</p> <p><u>Achievability</u> – Is done now by default</p> <p><u>Sustainability</u> - Once established as part of planning mechanism should readily continue</p> <p><u>Cost</u> - THINK THROUGH</p>
Regional/ country specialist needs planning	Specialist resources are long term investments that take a long time to build up. In almost all specialist fields applied official statistics, the capacity in the Pacific region is less than required. Resources are shared among countries to maximise the impact of these resources. <i>The resources are in SPC,</i>	Reinforce approaches to managing specialist resources of the region will become increasingly critical, as the supply of experts seems unlikely to keep up with the growth in demand. This will require greater planning on an annual basis, more systematising of the work required for specialised accounts, and more flexibility in how	The development partners are able to plan their engagement so that there is a high degree of coherence among them, and a high level of leverage across the region from country specific support.	<p><u>When</u> - Immediate</p> <p><u>Why critical</u> - Expected to increase available specialist resources through planning of engagements and greater systematizing of work</p> <p><u>Achievability</u> Will require a degree of collaboration across organisations and understanding of future work that will be difficult to sustain unless the rewards are obvious and large.</p> <p><u>Sustainability</u> - Difficult</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
	<p><i>PIFTAC, the larger statistical offices, occasional secondments from Statistics NZ and the ABS, and a regional community of consultants. A large amount of contracted specialist activity in addition to that of SPC/PFTAC is done on one-off assignments, limiting the sustainability of their contribution.</i> The balance between expanding the range of specialised accounts in the economic and population areas, and updating the annual series, may become more fraught as more countries progress in expanding national accounts to a varying extent. As such, specialist support is underpinning an increasing mix of regular statistics, and needs to be scheduled as timetables become tighter.</p>	<p>existing resources are applied. Clarification of the boundaries between SPC, PFTAC , UNFPA and other specialist providers is necessary The priority of maintaining ongoing statistical production needs to be highlighted more vigorously - basic core statistics A greater understanding of the gap between the supply and demand for specialist resources needs to be exchanged among the donors, specialist centres and countries. where specialists exist in countries they could be regional resources with appropriate compensation to their governments.</p>		<p><u>Cost</u> - Needs some central resource</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
SNZ/ABS support	ABS and SNZ have large pools of specialist experts not available in any statistical office of the Pacific Islands. The potential impact on existing resources would be significant, especially as countries develop more complex accounts and quarterly accounts. This support has its highest impact when there is continuity of engagement at an individual level, and when contextual advice re related systems and tools and other contributions to relevant innovation are able to be offered	The support of ABS and SNZ would be at its most valuable if it could be deployed across the whole region serviced by SPC, and with longer term links developed. As the region develops expert groups such as PINNACLE in national accounts, support for such groups would be a major boost to them. Both ABS and SNZ have regular top management retreats each year, they might invite one Chief Statistician from a Pacific country to attend each year. The regular out posting of staff from Pacific countries in ABS and SNZ has been judged successful, although no study has been made of this. This should be done in order to decide whether this scheme should be expanded. The ABS and SNZ could offer a scholarship in statistics with local employment to increase the local graduate supply.	Pacific statistical offices have available expertise in specialist areas that can support them when specialist oversight needs to be extended or reviewed, through the availability of ABS and SNZ specialists. ABS and SNZ have a group of experts with particular knowledge of Pacific statistical systems, who are able to work with Pacific countries.	<p><u>When</u> - During 2011</p> <p><u>Why critical</u> - The ABS and SNZ have strong support from Ausaid, NZAid, and their capacity and willingness to support the Pacific statistical system in a sustainable manner is highly influential on performance and advancement.</p> <p><u>Achievability</u> – Depends on goodwill in SNZ/ABS</p> <p><u>Sustainability</u> - If positive outcomes, likely to continue</p> <p><u>Cost</u> - Minor cost to SNZ/ABS</p>

Activity	Scope	Justification	Output/ outcome	Analysis/Cost
Accreditation of specialists	The pool of specialists employed in Pacific statistics is varied in experience, personal skills, qualification and competence. While it is difficult to develop simple test criteria, there is a need to develop some accreditation process. This might be an essential prerequisite for longer term contracts, or engaging on some types of projects. The ABS and SNZ have generally sought to oversee the staff they send on missions, and the practices they adopt may be a helpful start in this.	The contribution of the most effective can be offset by those who lack some of the basic skills and aptitude. As common systems and tools become an essential element of the advancement of the capability of NSOs in the Pacific, it will be critical that all involved in technical assistance have competence in those systems and tools.	Low risk of statistical processes being developed with one off systems or tools, that require special support	<u>When</u> - Establish during 2011 <u>Why critical</u> - Complements actions to increase specialist resource base <u>Achievability</u> – May not be practical <u>Sustainability</u> - If workable could be set up as ongoing process, depending on SPC/PFTAC support <u>Cost</u> - within budgets

## PART II: The Pacific Island Statistical System

### 3 The imperatives for an accelerated improvement in Pacific Island official statistics

#### 3.1 *Scale of expected demographic and economic change*

The expected rate of change of official statistics, and in the systems and tools available, is now faster than the rate of change which even the most well resourced national statistical office has the resources to invest in. This can be expected to drive all national statistical offices to more widely collaborate on new initiatives. Whilst this may be seen as beneficial in reducing the need for multiple single country investments in new systems, individual national statistical offices alone have accountability for performance, responsiveness and the assurance of the integrity of the statistics released. Of the more significant concerns that Pacific Island countries will face, several already require a much stronger statistical base when policy alternatives need to be seriously evaluated.

- *The current structure and population dynamics of countries will change considerably over the next two decades. Increased longevity, reduced fertility and changes in family formation patterns have a considerable influence on structural ageing, as communities are differently affected by these key shifts. Volatile migration flows compound the uncertainty. Without sound and timely measures of the current population, and the flows that influence it, economic policies and development initiatives risk being misdirected.*
- *In every country the demand for health services outstrips what is funded, so governments need a comprehensive plan covering private and public sectors to maintain up to date information on health status, health needs by demographics and geography, and data on patterns of service use and to inform decisions about resource allocation.*
- *Globally, the nature of business is evolving fast, and Pacific Island countries have not been excluded from the effects of change, not only for enterprises of Pacific Island countries, but of enterprises that trade among PICT countries, or seek control over Pacific Island resources.*
- *Climate change has many implications for Pacific Island countries. Unlike situations elsewhere, where the impact of climate change will be realised, the smallness and low lying nature of atoll countries in the Pacific Island could see entire countries disappear. Pacific Island countries are also at the forefront of issues that are of massive concern to many countries, so they have many potential partners in efforts to monitor and understand the nature and scope of climatic shifts.*
- *Information and Communications Technologies are evolving at great speed, and through developments in Africa and Asia is clear that the affordability of powerful technological capabilities has declined so far that there is little that is not within the reach of Pacific Island countries.*

### ***3.2 Expectations and responses of citizens***

The protection of respondent trust is one of the most vital contributions of the PICT statistical office. Pacific Island region countries generally obtain high response rates in household surveys, as seen in the recent DHS and HIES collection round where over a response rate of 90 percent or more was obtained in all surveys. Alongside this should be the production of key counts and summarising measures, in a timely manner. Timeliness is not assured in many of the Pacific Island national statistical offices, thus the relevance of statistical information is undermined, regardless of its quality. The building up of Pacific Island region indicators flounders on the varied timeliness of country statistics. Regional expectations of timeliness should be developed, and agreed on by Heads of Statistical offices collectively.

### ***3.3 Potential capacity to deliver increased value from statistical resource base***

This regional statistics plan provides the basis for determining that mix of activities most likely to sustain the performance of the official statistics of the Pacific Island region into the known future. The plan recognises the need for getting the most regional benefits out of both local and regional investments, and building up regionally relevant pathways for implementing the requirements that countries have had placed on them by international organisations and collective decisions. The plan identifies ways to build up a critical mass in specialist skills and systems, through recognising both the imperatives for collaboration across the region, and the gains to the overall investment base that could be built up over the next decade from both country and development partner contributions. The plan gives most emphasis to significantly uplifting the management of existing collections, and their availability, bringing about the largest and possibly the more immediate potential increases in the value provided by Pacific Island statistics. It is not possible to assess how far the collections done by external bodies need similar change, but many examples of poor access by countries to externally collected information exist. This leads on occasions to agencies developing alternative measures in isolation from other users, leading to duplication and higher costs. We believe reversing the inadequate management of statistical information is the most important first step in responding to the conclusion of the benchmark study (page 8) that: *“Despite many efforts put into improving statistics by countries, regional and international technical agencies, and development partners in recent years, perceptions are that (1) substantial gaps between official statistics needed and those actually available; and (2) the limited quality and types of statistics across the Pacific Island inhibits effective monitoring and reporting, socio-economic analysis, informed policy making, and effective planning.”*

### ***3.4 Improved access to administrative records***

In almost all places, access to external trade records collected by Customs, birth and death records obtained by registration processes, the public accounts, and information about the entities which form the tax base are part of the basic statistical collections. In Pacific Island countries, birth registration processes are often incomplete, and other means of monitoring births and deaths are fundamental to the quality not only of population statistics but also household surveys that need a

sound population frame for their validity. Economic activity is influenced greatly by the population base, and poor quality population estimates can bring huge uncertainties in understanding the trends in the economy, and in awareness of the underlying causes of change that is likely to influence policy. In many countries, the health system is becoming the most reliable source of early information about births and deaths, and in some countries it seems likely that a population register would enable major advances in population measures, for comparatively little cost.

There seems to be no direct way of assessing whether a statistical office has enough resources, so that we can easily assess what performance we should expect from the available resources. In recognizing that more value for users can be obtained from the existing resource base, we have set out how to assess how what form that additional value would take, and what would be necessary to obtain it. We have placed particular emphasis on the goals of the Pacific Island Plan, as these statistics behind it are also the benchmarks vital to assessing the conduct of almost all other statistical activity, as well as being important in their own right. These statistics alone are not the minimum set of statistics needed in any country. We have assumed that when a statistical office can meet all the expectations that these statistics bring, then it will have the managerial capacity, systems and tools, and specialist access to do well in any other statistics that resources have been provided for.

This implementation plan emphasises a regional approach to building statistical capability, although in practice capability among countries may fluctuate. The resource base available to Pacific Island countries acting collaboratively is significantly larger than when they act independently, such that all countries can expect a lift in the range of statistics that can be developed from their resources of tools, systems and infrastructures, when investment commitments are combined with those of development partners. Even if all the country resources of the Pacific Island region were pooled, (involving some 355 persons), there would be insufficient numbers of specialists to support the range and mix of specialist skills that would be found in a single well resourced statistical office that provides most of the specialist statistics that Pacific Island countries aspire to produce. This situation is reflected in the recent SPC survey, where national statistical offices highlighted capacity issues and political support as matters of the most concern to them.

### ***3.5 International engagement***

In Pacific Island countries, the tension between the capacity to produce statistics, and what needs to be produced is exacerbated by the comparative scale and complexity of external obligations compared to domestic demands. The obligations for regular reporting of country performance include the Millennium Development Indicators, and a myriad of other international reporting requirements including UNGASS, CEDAW, CRC as well as statistical frameworks being promoted including GDDS. These requirements can appear to dominate investment activity of countries particularly where the country is very small, or where domestic policy and decisions are made independent of such statistics. Whereas managing these tensions at a local level may be almost impossible, much more may be achieved at a regional level, because the similarity in all island countries of key elements of statistical processes, and associated methodological and operational issues. The regional leadership arrangements which can ensure that all countries get considerable benefit from these fundamental synergies will need to influence the range and intensity of international interests.

The build-up of the statistical infrastructures that underpin all statistical sources of the Pacific Island is at risk of being undermined by the operation of stand-alone surveys by development partners and others, when they compete for scarce statistical resources, and operate in comparative isolation of the common strategies being developed in the region.

## **4 Identifying how users get value from a regional statistics system**

### ***4.1 Strengthening country performance through a regional statistics system***

As statistical offices increase the scope of their activity, we will see an even more rapid expansion in the benefits that they get from the core regional infrastructure. For all Pacific Island statistical offices, leadership of a regional statistical system will accelerate the expansion of the infrastructure base at a country level. The smaller the office the greater the acceleration will be.

What brings success to networks of organizations is undoubtedly their capacity to limit what is decided on collectively (or centrally), and to ensure the continued relevance of collective choices. In official statistics, the broad range of areas where collective commitments to common approaches would be expected to have a significant impact includes;

- Regional statistical infrastructures
  - Classifications (Occupation, Industry, Imports and exports, consumer prices, disease, areas)
  - Statistical frames (Business, Population)
- Training and development of specialist and operational staff
- Commonality of practices
- Statistical systems and tools
  - Minimise the range of systems and tools that have to be learned, maintained and integrated with other systems and tools
  - Require all partners to adopt the Pacific Island tools and systems in funded activity
- Increase accessibility to administrative records
- Adopt statistical system models that have particular relevance to the Pacific Islands
- Exploitation of global and regional infrastructures
- Adoption of Pacific Island region innovations from other fields of endeavor
- Shared deployment of scarce high added value skills, whether within the national statistical offices, regional partners, SPC, PFTAC or contracted resources
- Capacity to supplement resources countries with very small statistical staff
- Continuity of contracted resources, and advance certification of competence
- Consider potential of regulation as the least demanding approach to generate information of significance to meeting statistical needs

### ***4.2 Critical aspects of user value in official statistics (timeliness, timing, accessibility, usability, transferability, user driven, responsiveness, robust, documented)***

To be valued for the uses to which they are put, statistics need to be relevant, accurate and timely. Because they provide information on matters of considerable consequence to the government,

peoples and the economy of countries, official statistics need to have the authority to generate obligations on government of thoughtful responses, and to build expectations and aspirations by people generally. They need to be trusted by the people and businesses that provide their confidential information to the statistical office.

The full value we get from official statistics, as they are seen in timely, informed decision-making, is rarely able to be assessed and compared with the cost of producing the statistics. Recognizing the benefits may be difficult, even if they are enduring and pervasive. What we do know is that statistics provide us with considerably more value when they are available close to the period to which they relate. We know that if have already been finalized, that they should be available immediately they are needed. Whether they are monthly statistics or of a ten-yearly population census, their usefulness is much greater when users know in advance when they will be available, and the form of release.

Across the Pacific Islands, all too often the system of official statistics cannot bring about the increased value that countries expect from its collections, because the systems and tools used in statistical operations, information management and analysis are obsolete or fragmented, with unclear development pathways. Inadequate resources and over-commitment lead to process bottlenecks and overload. Even the region as a whole does not have in its statistical offices the numbers of staff necessary to provide the range of specialist skills that underpin the range of statistics that countries produce. The formal governmental processes of release, particularly where Ministers and Parliaments are involved, prevent the scheduling of the release of statistics, and can cause long delay in availability. The loss of value from all these causes is very high. In assessing the impact of Pacific Island statistical initiatives in this plan, the opportunity cost of continuing as at present is strong indicator of the value that users could obtain

### ***4.3 A contemporary view of statistical infrastructure***

The statistical infrastructures most critical to integrated, high quality statistics in all fields include: Classification systems, business register, classification of location, information management capacity, relevant statistical definitions and statistical units, population register or census. Such infrastructure underpins all statistical sources, and enables a quality framework to be developed to assess the coherence of measures and other qualities.

The value and reliability of developments in economic accounts, and demographic projections are less when there is not a capacity to manage the coherence among statistical collections at the time they are initiated. Having a common statistical infrastructure will not offset fundamental flaws in the quality of key statistical sources. For example, the incomplete registration of births and deaths not only limits understanding of population change, but reduces the reliability of analytical measures, as well as population projections. Along with the development of statistical infrastructures, key measures of the population, and of businesses, need to be produced with high reliability. The failure to do this not only undermines the quality of these statistics, but of all statistical measures whose qualities are dependent on them.

Increasingly, the speed of adoption of new technologies, systems and tools can have a significant impact on the capacity of national statistical offices. From the initial evaluation stages onwards, the best resources available to the region should be applied to the selection of systems and tools, and there will be few areas where individual countries will separately act according to their preferences. The training of staff, provision of expert specialist support, the need to link with other systems, and the management of the ongoing obsolescence and eventual replacement all involve large, once only costs that can be readily shared among countries with even the smallest budgets, when incurred collectively.

#### ***4.4 Harmonization/integration as the foundation for SNA, population and social statistics, environment***

Common classifications of statistical attributes enable people, businesses and communities to be consistently grouped and matched, regardless of the statistical collection or administrative source that is collecting information about them. They also simplify classification practices and tools, and reduce the demands placed on countries when international standards change. Through common statistical frame, the target populations for statistical collections can be compared, and information about smaller population groups matched with a higher degree of reliability.

Common classifications enable information about difficult cases to be monitored, compared and reassessed by specialists who operate across the region from their base in one location, either SPC or a country.

#### ***4.5 Strengths and weaknesses of the Pacific Island statistical system and its form and partners, including critical mass***

The predominant, consistent strength of Pacific Island countries that exists regardless of size and specialised nature of the statistical system is the capacity to collect information from a target group and produce key statistics and report on them reliably, in a reasonable time. Given access to similar resources, it is unlikely that this could be done more effectively than when it is done well by the local statistical office.

At its most basic level, the statistical office needs to have the capability to carry out statistical collections well, and to be able to match its commitments to the resources available. This requirement underpins the effectiveness of the region as a whole in producing whole of region statistics, or comparisons between countries of the region.

When statistical offices large or small are adequately resourced, their capacity to gather information from citizens is reflected in high response rates, timely publication and high adaptability to a wide range of demands. It is core strength of the region, although sustaining this will increasingly become a concern of the region as a whole as region-wide statistics become important in managing regional policy. There are a number of expert groups, SPC and PFTAC most especially, who have a region based specialist capacity, with quite a number of more particularly focused specialist groups, ranging from ESCAP, UNDP, UNFPA ... The Pacific Island region has a long tradition of effective population census taking. The last decade has seen some significant uplifting in the capacity and performance

of the regions statistical offices. There is clearly a valuable platform on which the next decade can build.

There needs to be political support for the safeguarding of the capacity of the national statistical office, its dependence on close links with administrative processes, with regular reporting and the support of insightful research and studies. There are many countries whose size prevents even limited ongoing employment of specialists with skills beyond that required for the collection of quality, timely information for key indicator and baseline statistics. With access to specialist skills, there are countries in this group that have produced specialist economic accounts<sup>1</sup> or demographic analyses.

The resources of the Pacific Island are inadequate for any of the countries acting alone to provide a comprehensive set of economic, demographic social and environmental statistics. The resource gap is exacerbated by the vulnerabilities faced by Pacific Island statistical systems, to staff loss, fluctuating public resources and, poorly accessible data from public administration systems.

The allocation of resources to statistics within countries is made in the context of competing priorities of other forms of public spending. In New Zealand, approximately one in 5,000 persons work in Statistics New Zealand. Apart from the very smallest countries, only Tonga, Samoa and the Cook Islands have more people in statistics per head of population than this. In considering the variety of specialist skills needed to regularly produce the priority FIC statistical dataset published in the benchmark report (Table 2, page 22), it will be impossible for most of the Pacific Island countries to ever have the institutional strength themselves to regularly produce such a mix of measures. The gaps described in the following Table (Table 3, page 27) suggest that there are fundamental problems in analysing the gaps in Pacific Island statistics when current performance is compared to such distant objectives. This is an essential task for the proposed Pacific Island statistical leadership group. Informed judgments are needed at a country level about the significance to each country of the possible information mix. NSOs could then agree on a finer, realistic development pathways that they could achieve, that is appropriate to each country separately, but which will inform regional priorities.

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<sup>1</sup> Nauru

## 5 Selecting the key needs that will determine the long term direction of the Pacific Island regional statistical program (e.g. 10 year plan)

There is a need to summarise the many complex drivers of statistical needs so as to develop clear priorities for statistical collections, and the statistical infrastructure behind them.

### 5.1 Pacific Island plan goals (quality of articulation of milestones)

The Pacific Island Region strategies for economic and social development, with regional aspirations and goals necessitate collaboration among national statistical offices, are without quantifiable benchmarks. This situation will make it difficult to show progress in achieving the goals of the Pacific Island Plan. The strategies and their goals need to be informed by statistical information that is comparable and coherent at a regional level. As the quest for regional goals, strategies and collaboration increases, the need for timely and comprehensive statistics at a regional level will intensify. Any need for timely, quality region level statistics will challenge country statistics, as practices that may be adequate locally, might need to be modified to fit in with other regional providers.

### 5.2 Managed links with priority policy sectors (Economic base, health, education, environment)

We can identify a number of key sectors where statistics have a major influence on policy and public programs (Economic base, Health, Education and Employment, Environment).

Sector	Examples of Potential impact (to be developed further)
<p><b>Economic Base</b></p> <ul style="list-style-type: none"> <li>➤ Natural resources</li> <li>➤ Labour force</li> <li>➤ Tourism</li> <li>➤ Financial transfers</li> <li>➤ Ownership</li> <li>➤ Informal economy</li> <li>➤ External trade</li> <li>➤ Sundry Economic indicators</li> </ul>	<ul style="list-style-type: none"> <li>• Anticipate changes in national income as the economic base develops and changes</li> <li>• Maintain the relevance of the tax base</li> <li>• Anticipate pressures on infrastructure from changes in the economic base</li> <li>• Changing traditional economic structures</li> <li>• Understand trends in the purchasing power of people in typical situations</li> <li>• Monitor the shift from the informal economy to a market economy</li> <li>• Provide management and regulatory regimes for natural resources appropriate to their significance and the nature of their exploitation and conservation</li> <li>• Having early estimates of the impact of significant shifts in the economic position of the country</li> </ul>

<p><b>Health</b></p> <ul style="list-style-type: none"> <li>➤ Health conditions and their treatment</li> <li>➤ Treatment capacity</li> <li>➤ Fertility</li> <li>➤ Nutrition</li> <li>➤ Food security</li> <li>➤ Protection from disease</li> <li>➤ Surveillance</li> </ul>	<ul style="list-style-type: none"> <li>• Measures of impact of health initiatives</li> <li>• Immunisation rates</li> <li>• Reproductive health</li> <li>• Health conditions(diabetes) with high prevalence</li> <li>• Assess impact of population change on capacity and performance of health services</li> <li>• Provide capacity to increase overall net value from partners involved in health in Pacific Island countries through increasing the cohesiveness of their contributions</li> <li>• Surveillance of communicable and non-communicable disease</li> <li>• Maternal, neonatal, infant and child mortality and morbidity</li> </ul>
<p><b>Education and Employment</b></p>	<ul style="list-style-type: none"> <li>• Anticipate imbalances between supply and demand for labour</li> <li>• Identify potential sources of economic activity that will increase added value per head</li> <li>• Ensure that teaching resources are trained in sufficient numbers to meet the demand from student numbers and schooling programmes</li> <li>• Develop policies that enable educational opportunities to fit the potential of students, given their location and economic circumstances</li> </ul>
<p><b>Environment</b></p> <ul style="list-style-type: none"> <li>➤ Waste</li> <li>➤ Climate change</li> <li>➤ Disaster recovery</li> </ul>	<ul style="list-style-type: none"> <li>• Land use</li> <li>• Urban density</li> <li>• Energy supply and use</li> <li>• Pollution</li> <li>• Waste management</li> <li>• Climate change</li> </ul>

### ***5.3 Manage social economic linkages***

Even in the same countries where people live, places will have vastly different characteristics that need to be distinguished for meaningful policy evaluation and analysis. For almost all statistics, effectively understanding national trends necessitates understanding how local trends can differ. Some fields of statistics would be seriously limited in scope, including environment, agriculture and population, without the capacity to produce locality and urban area statistics. Pacific Island countries have adopted and shared innovations in satellite mapping, GPS and mobile telephony that have considerable potential to bring high speed monitoring of area specific characteristics, of considerable relevance to environmental statistics, but also the measuring changes in the population and economic base of island territories.

## ***5.4 Continued future pressure on the statistical system***

As the specialised nature of the statistics produced by countries increases, we see:

- An increase in the complexity of derived measures,
- the wide scope of the international statistical frameworks including SNA, BOP and GFS,
- the necessity for consistency in disparately obtained measures,
- A requirement for micro-data as well as statistical summaries
- A demand for small area and country region statistics
- Greater tension between the disaggregation of measures and confidentiality protection
- A need to be highly consistent in validation and classification decisions

This increase in the specialised nature of official statistics has a significant impact on

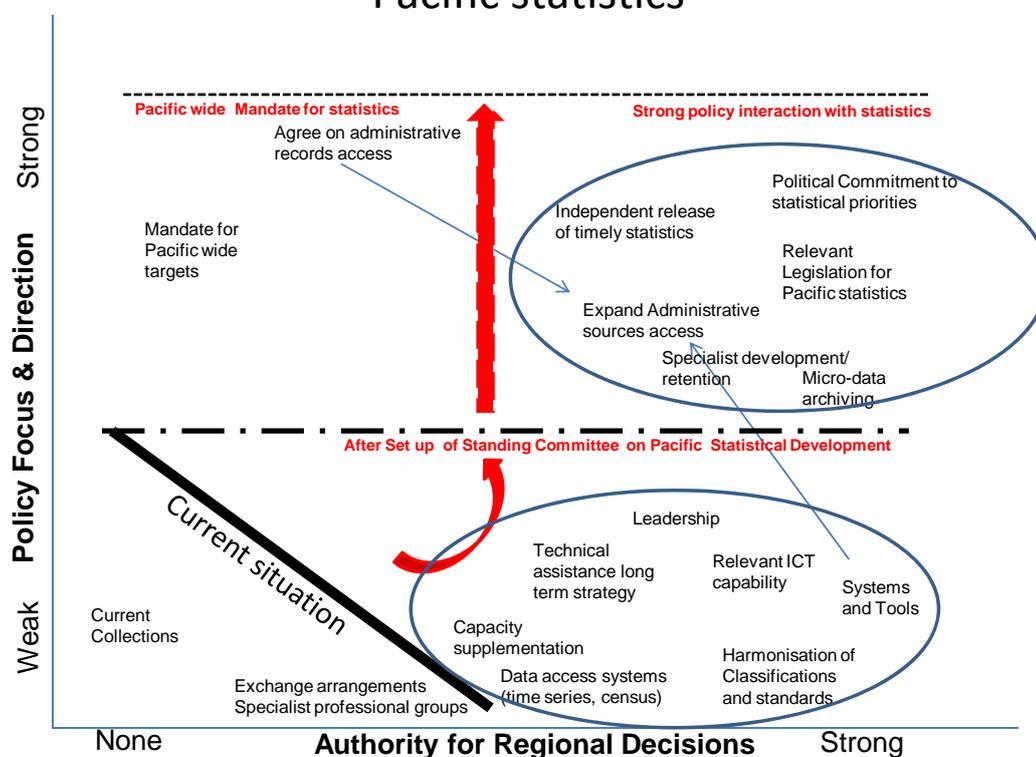
- The range of specialised resources needed in countries
- The way that data confrontation and management of inconsistencies is organised and planned for
- The integration of the systems and tools so that there are rapid feedback processes and staff can work on many systems without learning new skills
- The expectation that statistical measures can be produced for small areas
- The support of research and analyses on micro-data
- The number of people involved in partnerships and interactions
- The complexity and intensity of project management

## 6 Building structures for the leadership of statistical system, and the regional statistics planning system

Development strategies need to continually expand capacity and increase the value obtained by users from available resources, in reliability, cost and usability of statistics of all Pacific Island countries. Increased user engagement will be essential to determine the priorities of the second stage of the development programme. In assessing the capacity of the national statistical system, the breadth and depth of user commitment to the use of statistics play a critical part in determining the continuity of support and funding to the statistical system. While there may always be a need for resources to supplement those available in smaller countries, regardless of the government-wide commitment, across the region as a whole the two most critical influences on the future capability of the Pacific Island region country statistical systems are;

- i. Firstly the commitment to regional approaches to investment in systems and infrastructure, in order to increase the benefits that can be obtained from country and partner contributions
- ii. Secondly, the political mandate given at a national government level for the continuing access to administrative records, and of a strengthened ongoing interaction among the statistical system as a whole, and the policy processes of government.

### Direction and Authority for projects for development of Pacific statistics



## ***6.1 Monitoring and Quality Assurance of the regional Statistics Implementation Plan***

The implementation plan should be reviewed every three years, for continued relevance of the pathway it proposes, in the light of the achievements made over that period. New difficulties and new opportunities will have emerged, which will have consequences that ought to be recognized, and taken account of.

Progress on achieving the targets of the plan needs to be reviewed annually, with the usual expectation that the plan will retain its relevance for at least the first four years. The critical influencing factors need to be given top priority, in particular the establishment and support of the Standing Committee of Chief Statisticians. An agenda for this committee is presented in the following section.

Decisions by the board on the selection of particular systems, tools, standards, classifications or methods will need to be preceded by specialist advice. The intensity of such advice will be determined by the cost, reversibility and direct and indirect impacts of the selection decision.

Risk management is discussed in section 13.1

## ***6.2 Standing Committee of Chief Statisticians***

Models of Pacific Island region leadership bodies exist already in many fields (Customs – OCEC). The leadership of statistics is increasingly unusual compared to regional collaboration and leadership in other fields of government activity. The three yearly HOPS meeting mainly shares information, and engages in little decision-making that will influence the work of their offices.

Giving authority to region-wide common practices, systems and tools requires some authoritative basis for determining them. We see from other experiences in cross country collaboration that harmonization of classifications, definitions and standards has been successfully achieved over the long term in a number of country groups. There is an EU statistical system, which has a large statistical office (Eurostat), and a regular leadership group (The Statistical Program Committee), and in the Caribbean there are similar initiatives in co-ordinating statistics (The Caribbean Standing Committee on Statistics). A number of country groups have long stand arrangements to collaborate (Australia and New Zealand, the Nordic countries, Canada USA and Mexico). In none of these cases is there the strong emphasis in building up a regional concentration of specialist expertise, systems and tools, than is proposed in this plan.

We have seen little effective collaboration in systems and tools, although there is now a well recognized set of systems and tools appropriate for collecting, processing, analyzing and disseminating official statistics. We recognize that the economic imperatives faced by Pacific Island countries are more severe than any of these five country groups, and see this is a sufficiently compelling driver, provided development partners reflect this commitment in their own arrangements. Consequently, the extent of co-ordination that is essential across Pacific Island countries is not seen elsewhere, and the capacity to provide a regional authority to decisions will be a risk to the success of the ten year plan. We propose

- a) The establishment immediately of a Standing Committee on Pacific Island Statistical Developments(This committee would meet six-monthly, and consist of several Pacific Island countries and development partners
- b) The three yearly HOPS meeting meet every two years, and focus on reviewing the achievements of the standing committee, and engaging with key elements of the statistics user community.

In section 2.1, we have identified the range of areas where regional leadership would have a significant effect on the value countries would gain from resources provided either by development partners of countries themselves.

**TABLE: Regular agenda of the proposed Standing Committee on Pacific Island Statistical Developments**

<b><i>Subject</i></b>	<b><i>Influence on common approach</i></b>	<b><i>Value of regional leadership</i></b>
Regional statistical infrastructures <ul style="list-style-type: none"> <li>• Classifications (Occupation, Industry, Imports and exports, consumer prices, disease, areas)</li> <li>• Statistical frames (Business, Population)</li> </ul>	SNA, GDDS, UN statistical classifications (Industry, Occupation, Commodity) UN Population classifications	Influence speed of adoption Preparation of associated statistical instruments – questionnaires, statistical tables
Statistical systems and tools <ul style="list-style-type: none"> <li>• Minimise the range of systems and tools that have to be learned, maintained and integrated with other systems and tools</li> <li>• Require all partners to adopt the Pacific Island tools and systems in funded activity</li> </ul>	Common development partners (SPC) Limited capacity to direct external consultants Economic constraints bring cost sharing	Provide authoritative basis for regional preferences Ensure that long term contractual obligations reflect the economic capacity of Pacific Island countries Ensure that specialist support, training, links to other systems and upgrade pathway is consistent with effective use by countries
Adopt statistical system models that have particular relevance to the Pacific Island	Developments often made in isolation of innovation elsewhere in Pacific Island.	Have innovation strategy
Increase accessibility to administrative records	Iterative approach at country level is not supported by region-wide initiatives in particular sectors Administrative records often need major development initiatives that might be better recognized as regional issue	Provide leadership in advocacy based on country experiences and achievements Enable transfer of innovation and successful developments to other countries
Exploitation of global and regional infrastructures	Project by project developments rarely require longer term development perspective that will advance regional infrastructures	Give impetus to drawing on infrastructure advances, eg mobile phones.
Training and development of specialist and operational staff	Co-ordination is determined by training providers, not the NSOs. The development program will necessitate higher skill levels being acquired at a pace that reflects the changes in systems and tools available to NSOs	Ensure the adequacy, relevance and effectiveness of training programs

## **PART III: The Agenda for Regional Leadership of Statistical Capacity Building**

### **7 Bringing operational stability, with regional collaboration and support**

It will be critical to build on the fundamental strength of Pacific Island statistics, in face of country level risk, resource allocation difficulties and failures, and the challenges and constraints of regional decision-making.

#### ***7.1 Capacity supplementation of country NSO's through Pacific Island resource pool***

The gap between the international requirements placed on countries and what is being achieved, and what can ever be achieved, will be manageable in practical ways if there can be a thoughtful staging of the pathway to full achievement, so that regardless of what is finally achieved among countries, there is a systematically managed approach to the integration and comparison of the statistics of countries in the region.

In seeking to manage effectively ways of adapting to context of government in a very small country, there is a need to recognise that the most critical constraints are from:

- Long term funding uncertainty
- Project specific funding which hinders capacity building
- Obtaining leverage from existing or planned regional IT investments, and common systems and tools.
- Impact of low staff numbers limits the capacity to supplement resources within countries with very small statistical staff
- Expertise key to statistical system may be in other parts of government
- Limited continuity in high level specialist advice

Manage increase in risks of losing high value added staff

1. Find ways of effectively specifying contributions of external contractors, and getting high value (technical assistance, documented resources)

#### ***7.2 Establish stable technical assistance for specialist processes serviced on a regional basis***

In some countries, the regular production of specialist statistics such as national accounts will be done using resources that supplement the capacity within the country, while for most countries, the development of specialist statistics such as nation accounts and their initial implementation will

require a level of specialist skill that few countries have<sup>2</sup>. Similarly, the preparation of specialist analytical reports will often be done by transferring such capability into the country for the specific task.

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<sup>2</sup> The recent transfer of responsibility for economic accounts to the Samoa national statistical office, and the introduction of quarterly national accounts is a good example of co-ordination across the NSO, Central Bank and Treasury.

## 8 Specialist/expert management

This plan enables a stronger basis for estimating the future demand for specialist resources by identifying those parts of the statistical value chain reliant on specialist skills.

### 8.1 The place of specialists in the statistics value chain

The two tables below highlight the areas where specialist resources are needed. Table 1 relates to core statistics, while table 2 relates to economic accounts and demographic analyses and specialist studies in other fields.

Table 1: Core statistics needs (national minimum development indicators)

Overview of ideal Country resource access by key statistical processes	Countries achieving most core needs	Countries achieving core needs and advancing beyond this??	Countries significantly beyond meeting commitments to core needs
Survey analysis and reporting	Regional Support		Country determined
Complex	Regional Support	Country determined	Country determined
simple			
Survey Counts	Country Managed		
Reliability assurance	Regional Support	Country determined	Country managed
One-off surveys	Regional Support	Country determined	Country managed
Normal Survey event Processes	Country managed		
Survey Operations setup	Regional support	Country determined	
Survey systems and tools	Regional capability		
Statistical Infrastructure	Regional capability		

*Table 2: Comprehensive Statistical base: Meeting whole of government needs*

Overview of ideal Country resource access by key statistical processes	Countries at limits in achieving CORE statistics needs	Countries close to core statistics needs and readiness for beyond	Countries Achieving beyond the CORE statistics needs
Complex statistical outputs -confidentiality	Regional support		Country managed
Update Demographic Statistics	Regional support	Regional support	County Determined
Update Economic accounts	Regional support	Regional support	County Determined
Establish Demographic system	Regional support	Regional support	Regional support
Establish Economic accounts	Regional support	Regional support	Regional support
Output databases	Regional capability		
Data management	Regional capability		
Operate Complex surveys	Regionally managed	Regional support	Country managed
Obtain access to administrative data	Country managed		
Complex surveys	Regional support		Country managed
Statistical Frameworks Pacific Island applications	Regional capability		
Statistical systems and tools	Regional capability		
Statistical infrastructures	Regional capability		

## ***8.2 Regional/ country development plan***

We do not have good information on the total cost of Pacific Island statistics, in preparing this plan.

Key questions that ought to be able to be addressed in a business plan are:

- 1 Is the overall amount of resources put into Pacific Island Statistics adequate for the tasks?
- 2 Are the resources in the right place?
- 3 Are the Pacific Island institutions that currently produce statistics giving a reasonable account of their performance in doing this
- 4 Do we have the information to adequately address any of these questions?
- 5 How many resources involving country governments or donor agencies are distributed through the results of country statistics

Given that we do not have sufficient information, what do we assume, and how will that drive the proposed actions. In this plan we have looked at the opportunity cost of the current approach to funding and its allocation, and used our judgements on the extent to which components in the plan would increase the value to users of the Pacific Island statistical information base, now and in the future. Without costing information, the question might be “What is the best way to use an extra \$5million per year over the next decade, in reducing statistical gaps in the Pacific Island”

## ***8.3 Donor/ partner collaborative commitment***

It is not unusual for development partners to provide the resources and capacity for statistical initiatives beyond those that the office is able to commit to. However they are resourced, all statistical activity that is carried out should be consistent with the statistical systems, standards and practices agreed on for the region as a whole. The country statistical office needs to be a partner in the data management and archiving arrangements for any statistical information collected. Because of this, the standards and practices need to add value to users, rather than reduce the value of any single collection. The development partners will have expertise in systems and tools that will support decisions. They will be involved through membership of the Standing Committee of Chief Statisticians.

The scarcity of statistical resources in most Pacific Island countries means that development partner funded statistical collections, or those done by others from outside the country, can often lead to short term disruptions to the statistical program of countries. This is especially true of the smaller countries.

The plan must increase the long run value of the benefits obtained by Pacific Island statistical systems from the contributions of development partners. It should increase the likelihood that development partners will be able to anticipate reliably the context and likely outcomes of their contributions, with greater certainty of matching performance to expectations. There are many other partners in official statistics. The opportunity from managing resources collaboratively in diverse ways has considerable potential to uplift PICT statistics, but this may necessitate challenging some traditional relationships and boundaries.

The interdependence of official statistics with other government activity means that progress in information technology and IT infrastructures across the public sector, and in the educational levels of those involved in developing and managing public policy, will have major spill-over benefits to the statistical system. Conversely, the poor management of administrative collections affects the

statistical system negatively. Uplifting the national statistical system will necessitate partner commitments that ultimately extend far beyond the national statistical office itself. These commitments will need to result in a high leverage across the statistical value chain for all Pacific Island countries from development partner activity. This will cover all fields of statistics and be based on a high degree of commitment among national statistical offices. As a consequence, a number of the projects proposed in this implementation plan are intended to stimulate work in education, health and other fields that will directly uplift the performance of the statistical system, and its capacity to directly inform operations and policy in those fields.

Because of the small size of the Pacific Island statistical offices, the influences on separate investment of what could and should be common processes affect the overall capability of the region, by reducing the achievable quality and scale of statistical capacity that is achievable from the resources available to the region as a whole. Fragmented processes usually result from project specific funding, country specific development partner commitments, lack of continuity of advisors, a lack of authority for the co-ordination of investments across the region, and a lack of ongoing exchanges that could develop a regional consensus on preferred systems and tools ]. The SPC drive for a common population census questionnaire is one major success here, as is the application of PC-Trade for external trade statistics processing, although neither of these common investments are adopted in all countries.

In contributing to the resource base of Pacific Island countries in a mix of ways, development partners can have two especially important and critical influences on the future capability of the Pacific Island region country statistical systems. These are;

- i. Firstly, a strong commitment to regional approaches to investment in systems and infrastructure, in order to increase the benefits that can be obtained from country and partner contributions
- ii. Secondly, the expectation of an emerging political mandate at a national government level for the continuing access to administrative records, and of a strengthened ongoing interaction among the statistical system as a whole, and the policy processes of government.

These can be underpinned in a variety of ways.

- i. Collaboration in the development of the regional statistical infrastructures, through projects which are developed in the expectation of their relevance to many countries in the region, and through evaluating the downstream whole of system opportunity to benefit from investment in systems and methods for particular countries.
- ii. A willingness to extend the reach of their work they contribute to all countries. At present, contributing partner countries and agencies can show less will to support countries where their direct interest is low.
- iii. Recognition that the statistical system extends well into agencies other than the national statistical office. This will be more so in the future, as administrative records become a much larger share of the statistical sources that are important to country statistics, especially the more specialist series such as national accounts.

- iv. There is perhaps a need to challenge the continued relevance of the institutional model adopted by most of the traditional development partner countries, with a strong separation of statistical activities from other roles. Should other considerations influence the scope of Pacific Island statistical offices, and the nature of their relationships with other departments and agencies? Furthermore, a very high degree of regional collaboration will be vital to the growth in capacity of Pacific Island statistical offices, as is the particular role of SPC as a partner in data management, statistical reporting, and statistical standards.

## **9 Why regional investments increase the value of country statistics**

A regional focus should not only influence how each Pacific Island country invests its resources, but countries should have a credible basis for challenging the form of investments that development partners make, through testing their regional relevance even when development activity is targeted at specific country needs. It is over-simplistic not to recognise that, although each Pacific Island country is unique in their development pathway, it is possible to identify many common elements and thresholds. It would be difficult to base a regional focus on development without recognising these distinct pathways.

### **9.1 Harmonisation: Quality, scope, future targets, cost, quality of economic, demographic accounts**

- *Regional program to bring together all obligations and intentions*
- *Classifications management*
- *Questionnaire management*
- *Legislation consistency*
- *Regional leaders at country level*
- *Regional standard meta data*

### **9.2 Regional people development Cost, stability, responsiveness**

- *Leadership development*
- *Young professionals development*
- *Specialist training and rewards*
- *Regional resource exchanges*
- *USP/ SIAP partnerships*

### **9.3 Pacific Island centre for statistical and technological innovation**

There is potential for a region centre (notional) for survey and statistics innovation in the Pacific Island, covering technology, methods, survey design, statistical measures and reporting and engagement. The development tasks below would be basis for working with USP, and the centre could involve other universities and technology centres.

- Ensuring that the development path for the transformation of technology base fits long term finance availability
- Managing the out-datedness of methods and systems, and having a long term strategy to replace out of date systems.
- Identifying and training in standard practices and providing strong oversight
- Selection of key tools and systems
- Look at relevance of emerging technologies in Africa re mobile phones for data collection

- Focus on impact of recent technologies on collecting data for selected series (CPI, Building Investment, Other capital)
  - Place of satellite and aerial technology re land and sea use
  - SPACETIME
  - Impact of island location on technology life cycles
- Look for globalised and wider Pacific Island region infrastructures that create the possibility for off shore management of such processes and systems
  - Region wide application of access systems for data repositories
  - Effective application and maintenance of high tech resources (E.g. digitisation)
  - Manage high impact transactions and respondents and their information with specialist teams

The demand for specialist resources across the region will outstrip supply, and the wider use of country expertise would be a relatively lower cost means of expanding the available resources.

The development of young professionals, supported by a mandatory induction programme, alongside specialist training and significant rewards for successful learning in relevant fields of statistics, economics, demography and other core disciplines, would be expected to increase the capacity to recruit and retain those who will play a key part in implementing this plan. There are good examples of modular learning programmes, and these will especially important to the Pacific islands

Continuing professional development is critical for staff at all levels, and to support this a wide range of activities including a training needs assessment, a mapping of NSO needs to formal and informal learning, a review of the USP statistics curriculum and its revision where required. Accreditation for learning should be appropriate for the training undertaken, and proper recognition needs to be given where there has been a continued advancement in knowledge essential for the work.

#### ***9.4 Management of common statistical systems and tools Capacity building, Continued innovation, Benefit other agencies, Cost***

Statistical processes build on a complex mix of systems and tools, processes of engagement, and their fit with laws and customs, technology, methods, practice, and capacity to learn and adapt. As such, common tools and systems may operate with different effectiveness in different settings, even though the local management of processes in a regional system will involve an increasingly large set of common regional approaches.

#### ***9.5 A start to developing a coherent strategy for systems and tools***

In terms of supporting the collection, processing and dissemination of statistical data in the Pacific Island there are a number of considerations that need to be taken into account. Many of these have been articulated but the key considerations lie around: cost, capability, future growth potential, scale and robust / repeatable methods. It is key that the Pacific Island nations standardise their approach, while providing the flexibility for individuality as needed - in terms of statistical IT solutions there are many solutions available that can play a role in meeting these needs. It is also important for all nations to consider solutions that fit into an end-to-end solution to ensure

interoperability between processes within the statistical office, between agencies within a country, between statistical offices across the Pacific Island, and with external agencies (e.g. ADB, IMF, etc.).

In order to maximise the value of standardisation it is key that all parties talk the same language. It is strongly recommended that this language be based around the UN / OECD / Eurostat agreed Generic Statistical Business Process Model (GSBPM), which can be found at:

<http://www.unece.org/stats/gsbpm>. The GSBPM is a flexible tool that describes and defines the set of business processes needed to produce official statistics. At the highest level it outlines the end-to-end processes starting with 'Specify Needs', right through to 'Disseminate' and beyond. This model does not define the processes nor IT platforms, but it does provide a common language that drives standardisation and sound statistical processes. Many National Statistical Offices (NSOs) around the world have adopted this model and are developing architectures to fit this model.

Taking into account some of the considerations outlined above, and looking at the cheap end of the IT scale there are many options available, many offered by statistical offices, many 'free' or used extensively by many of the larger NSOs. The sort of solutions that could be considered further include: Blaise from Stats Netherlands (collection instrument & management tools), Microsoft suite (word processing (Word), analysis (Excel), and publishing (Publisher)), MySQL (database back-end), R (analysis), SuperCROSS (cross-tab dissemination), and dX from Econdata (timeseries mgt & dissemination). It would be recommended that developmental work be undertaken to ensure that some of the key pieces of statistical infrastructure (e.g. business frame, classifications management) are developed to be fit-for-purpose and clearly understood and subsequently managed by the Pacific Island countries - these pieces of infrastructure can be developed and managed using the tools suggested above, and potentially managed centrally, and there are some potential solutions available from other NSOs (e.g. Statistics NZ's classification management system). If agencies follow the GSBPM, it is possible to develop process modules (e.g. imputation) that correspond to the GSBPM modules, that could then be shared across agencies. One area that needs some further consideration will be how to best support time series analysis, which is critical for statistics such as National Accounts, Trade and Prices - time needs to be recognised as a characteristic and not just a variable.

There is a need to consider what operating platform should be used - the natural inclination would be to use the Microsoft operating platform, however low cost / open source options like Linux could be potentially used, and that could mean that the OpenOffice suite of tools could be used instead of the MS Office suite. It should be noted that advice should also be sought on the infrastructural architecture that is needed to support the IT platforms across the Pacific Island, as there are many considerations that need to be considered before recommendations such as 'cloud computing' should be agreed to. However, it is envisaged that a relatively simple architectural design would be needed and would fit with the existing infrastructure of stand-alone PCs. In the case of both the platform and architectural decisions, capability will be a key determinant of direction.

There are similar standardisation and collaboration initiatives to those outlined above underway in other parts of the world, including between agencies such as Stats NZ, Australian Bureau of Statistics, Statistics Canada, Statistics Sweden, ONS etc., but these are at the early stages of development and aimed at 'large scale' statistical operations, involving millions of dollars. It would be beneficial for the Pacific Islands to remain in contact with these developments, but at this stage it is not recommended that the Pacific Islands look to implement these. The approach above does not restrict the Pacific Island nations uptake of such solutions in the future.

## ***9.6 Time series data management***

It is proposed that an arrangement be made immediately to trial the time series system “dx” from Econdata in Melbourne. It is a well tested product and would be a vehicle for managing and disseminating time series that also provides significant functionality for key users.

## ***9.7 Census micro-data capability***

It is proposed that a trial begin immediately with SOPACETIME research to adopt the SPACETIME range, subject to a sensible cost arrangement. The ABS and SNZ could be expected to support this arrangement, given their own substantial contractual arrangements with the company over two decades.

## ***9.8 Proprietary versus opens source options***

The development of systems, tools and methods of Pacific Island statistics needs to become a collective investment of countries, so that such systems, tools and methods are essentially a free good in all applications.

## PART IV: Aligning Regional and National Leadership

### 10 Broader government commitment to official statistics, Scope, accuracy, quality, cost

We have only a crude analysis of the total cost of Pacific Island statistics, by origin of funds<sup>3</sup>. We are therefore unable to directly address key resource allocation questions. These are:

Is the overall amount of resources put into Pacific Island Statistics adequate for the tasks?"	<i>We do not have sufficient information on the overall amount of resources, but judge that those allocated to NSOs, or provided to support them through SPC and PFTAC, are not sufficient</i>
"Are the resources are in the right place?"	<i>Our conclusions on infrastructure, technology and the management of existing collections and administrative sources suggest not.</i>
"Are the Pacific Island institutions that currently produce statistics giving a reasonable account of their performance in doing this?"	<i>No. There is insufficient understanding of where users obtain value from official statistics for their current and future needs to have sufficient influence on the NSO work programme.</i>
"Do we have the information to adequately address any of these questions?"	<i>We can make a sound start, because some of the conclusions are so stark that additional evidence is not needed in order to act.</i>
"If we do not have sufficient information, what do we assume, and how will that drive the proposed actions?"	<i>We assume that as statistical collections become more useable, then the uses to which they are put will eventually drive demands for further improvement</i>

<sup>3</sup> "The costs of existing national statistics offices in the region are about US\$4-5million per year, dominated by PNG and Fiji. This includes all costs, statistical and support staff, office expenses, travel. Staff costs constitute around 70 to 80 percent of the total costs, most travel is paid for by outside donors. The cost of existing external technical assistance to NSOs in the region is unknown, but may be in the range of US\$3-4 million per year (excluding population censuses). In addition, in some countries, some macroeconomic statistics are compiled by other agencies, notably the balance of payments by central banks and government finance statistics by ministries of finance (estimated costs approximately US\$0.5-1million). In total, the costs of existing statistical services may be in the order of \$US7.5-10million, of which about 60 percent is funded by the PICs themselves (see attached worksheet at Appendix III)". Source: Commonwealth Secretariat Report 2005.

“How many resources involving country governments or donor agencies are distributed according to country statistics?”

Without costing information, the question might be “What is the best way to use an extra \$5million per year over the next decade, in reducing statistical gaps in the Pacific Island”

### **10.1 Legal and managerial authority for administrative data access and management**

The form of commitments that will need to exist on a regional basis will have to be consistent with the legislation of Pacific Island countries, and in the partnership agreements that they have with external organisations and other countries. This may require some change to current statistical legislation in some countries.

Nature of driver	Broad area of mandate/ commitment
<p><b>Mandate of National Statistical Offices (from Pacific Island Plan)</b></p> <ul style="list-style-type: none"> <li>• Scope and comparability of core statistics</li> <li>• Commitment to harmonisation of standards and advancement of economic and demographic accounts</li> <li>• Monitoring of regional plan goals</li> </ul>	<ul style="list-style-type: none"> <li>a) MDG statistics</li> <li>b) Economic accounts</li> <li>c) Population census 2010round</li> <li>d) Statistical classifications</li> <li>e) Population base concepts (residence, household)</li> <li>f) Statistical questionnaires – common elements</li> </ul>
<p><b>Commitments by the National Statistical System partners</b></p> <ul style="list-style-type: none"> <li>• Define and maintain regional systems, tools and methods</li> <li>• Accelerate progress in developments across the region by increasing the applicability across countries of single country development initiatives Increase the capacity of the region to adopt locally relevant innovations</li> <li>• Extend capacity of regional technical, and high value skills resource base</li> <li>• Increase value of statistical reports</li> </ul>	<ul style="list-style-type: none"> <li>a) Common processing systems</li> <li>b) Common methods and practices in data capture</li> <li>c) Common analytical practices in reporting statistics</li> <li>d) Statistical output databases (PRISM)</li> <li>e) Regional support for implementation of economic accounts and demographic statistics, and associated statistical sources</li> <li>f) Regional facilitation of capacity supplementation</li> <li>g) Regional support in specialised analysis and reporting</li> </ul>
<p><b>Aspirations for Whole-of-Government commitment to statistically informed Society</b></p> <ul style="list-style-type: none"> <li>• Build up community trust in official statistics</li> <li>• A whole of government official statistical system</li> </ul>	<ul style="list-style-type: none"> <li>a) Access to and use of administrative records</li> <li>b) Common protocols and practices in confidentiality, release of information.</li> <li>c) Common release timetable</li> <li>d) The regular availability of statistics about communities, activities and industries familiar to the public</li> </ul>

# **11 Country planning processes, Preparing for regional infrastructure**

## ***11.1 Provide leadership in risk management***

While regional solutions are essential, they can be complex to manage simply because any presumptions of homogeneity in the situation among the NSO's of PICTs have to be sensitive to the variations in size, openness of the economies, their statistical capability and place in the international community, as well as their level and sources of wealth. Investments fundamental to the long run capability of the system continually risk being crowded out by short term demands. The speed of adoption of regional solutions will depend on the intensity of local interests in particular statistics and the capacity to identify key synergies, and the ways that regional leadership can influence decisions on practice, methods and processes. Where recently installed systems differ from the regional solution, this will understandably delay making another change. All these can impact on the way common solutions are adopted across the national statistical offices, and the development paths that will be most effective for the Pacific Island region as a whole.

Decisions that lead to commitments for common regional systems will be will underpin the investment plans of each office, and the scope of regional systems and services will have a considerable influence on what can be delivered from tight country budgets. There are opportunities for spill-over benefits from the wider potential application of specific systems and processes developed for a particular externally funded project. Much has been done already to avoid having many uncoordinated developments that can leave a legacy of diverse systems and tools that PICTs have no capacity to maintain. There is a sound foundation here for a more determined regional commitment.

The effect of this mix of influences is that;

- There are huge variations in the capacity of countries to influence demands by interacting with users. Despite the significance of their impact, countries have had no influence on the shape of the millennium development indicators.
- The gap between the requirements for statistics and local capacity to produce statistics on a regular and timely basis remains overwhelming in some countries
- Where demands are established in the form of new statistics, presumptions of the existence of relevant statistical infrastructure needs to established in advance of acceptance of the commitments
- Maintaining statistical outputs in the face of inadequate statistical capacity can often be at the cost of eroding the integrity of statistics through loss of timeliness, quality or relevance.
- Donor country commitment is extensive, but could be better directed to increase the region-wide contribution of country specific investments.

The key concerns of risk management in the implementation of this plan are therefore:

- Difficulty in establishing the Standing Committee of Chief Statisticians
- Difficulty in getting regional agreement to select preferred tools and systems

- Difficulty in obtaining resources for the effective implementation of improved tools
- Delay in agreeing on improved information technology environment in Pacific Island region statistical offices.

## ***11.2 Leadership of Pacific Island system***

At its most effective, regional leadership of the Pacific Island statistical system will determinate the long term share of investment put into infrastructure, frame management, methods and tools. It will play a part in building up the place of statistics in government, and challenge long term direction and mix of statistics in the region. This will then become easier to do at a country level. In all its decisions, respondent trust will be protected as the uses and forms of statistics are extended. This will be done in part by building local commitment to good statistical collections, through producing community statistics in a timely way, building up statistical portraits of island countries, and a commitment to non-market activity measurement and its valuation

Enhance the NSO capacity to report by building the common elements of a regular national statistical report in all Pacific Island countries, addressing “Who are we?”, “How do we make a living?”, “How do we participate in the global economy?”, “Where do our people, goods , land go to, and come from?”, “How is health, education, safety maintained?”, “How do we pay for government, and what do we get?”.

The cost of good governance - EU statistical office heads meet three monthly, in their oversight of the EU statistical system, with a small partnership group who meet in between times with the Eurostat Director. Among the Nordic countries, there is an annual meeting, and the management teams of Australia and NZ have been meeting every two years since the mid 1980s

## ***11.3 Regional Planning processes***

There are several critical areas where regional activity will add to the capacity of all National Statistical Offices, whatever their institutional strength.

- Establish a region-wide focus on enhancing administrative data use through ensuring understanding of the need for extending the range of administrative processes that are part of the wider statistical value chain
- Develop approaches to invigorating within-country partnerships with other statistical providers
- Identify key approaches to building up policy linkages and support from those active in public life
- Identify non statistical spill over benefits from investments in statistical infrastructures
- Maintain the authority of the regional statistical plan, as circumstances develop that alter the key assumptions of the initial plan
- Identify effective ways of engaging statisticians in policy, in order that policy linkages and needs can drive priorities in the most informed way within the national statistical office, and between the national statistical office and other agencies.
  - National analytical professional group/ network
  - Government/ university inter-relationships
  - Pacific Island professional communities

- Inter-agency partners in infrastructures and practices essential to statistics (business tax frame, address lists)
- Parliamentarians

The countries of the Pacific Islands all have small statistical offices compared to that of small industrialised economies. Even so, the diversity of responsibilities among statistical offices of the Pacific Island region may be similar to the diversity among the countries of the EU

## Appendix: Analysis of the statistical value chain (stages of activity in producing statistics)

Statistical value chain element	Purpose of element	Varies within surveys at different times	Varies with surveys	Constant across all activities
Development of statistical systems	Capacity to process statistical/ administrative records			May vary with broad type of data
Statistical classifications	Capacity to codify responses			Yes
Statistical operations -Respondent mgmt -coding -Transcription -Validation -Estimation	Capacity to collect information from target population, manage responses and report	Can vary with some types of statistics (eg Population Census)	Varies with statistics	Some commonalities
Manage complex statistics responses			Varies by statistic	Common support in managing operations
Access to administrative records			Varies by country	
Specialist estimation methods	Essential for SNA, Prices indexes, demographic systems)		Application may vary slightly across countries	Common pool of specialist increases range of accessible skills
Operational integrity assurance	Assurance that statistical practice conforms to expectations, and outlier situations managed effectively		Varies across countries	Specialists able to be transferred where skills not available
Management systems for statistical records (support user access)	Capacity to retrieve information and meta data for later use			Commonalities in systems, documentation requirements
Statistical output systems (user driven access)	Ready retrieval of commonly used measures			Common needs
Data visualisation systems	Capacity to enquire from databases with mapping/ charting systems			Common needs

## Appendix: Challenges to statistical development of Island States

Pacific Island countries face a variety of difficulties in the production of statistics, with few offsetting advantages. There will be an expectation of considerable improvements to Pacific Island country statistics as a consequence of moves towards greater regional collaboration. These expectations need to be seen in the context of several critical constraints, and the scope to find means for addressing them.

### *The size of Pacific Island countries*

- Most Pacific Island states are too small to maintain the capability to operate, develop and advance official statistics of the mix needed in a small economy
- Level of stable government funding generally is insufficient to maintain ongoing programmes in form originally developed and operated.
- The investment in statistical co-ordination and standards in small countries would be a prohibitive share of the statistics budget, were it carried out to the standard implicit in the GDDS and various UN standards.
- The level of technology applied to key administrative processes across PI governments is poor, and has significantly jeopardised how far administrative sources can underpin both social and economic statistics. The opportunity to standardise tools across Ministries has been missed, so far.
- The ongoing preparation of statistics for meeting international reporting standards (IMF GDDS) would be a disproportionately high share of national statistical budgets, compared to meeting the needs of budget planning, management of the tax base, and other domestic decisions.
- The demands of the millennium development indicators place significant demands that are not transparent and depend on statistical infrastructures usually found in larger countries.
- The sample fractions needed for reliable survey estimates are disproportionately large in small countries; hence more importance is placed on both administrative sources and censuses. Even a small set of household sample surveys can have high respondent load for the population
- When backlogs in operational activity arise, the level of resources is generally insufficient to clear these up with any reasonable delay, and prevent spill over effects on other series

### *The focus of decision-making*

- The focus of government decision-making in small open island economies is very different from even small industrialised economies such as New Zealand
- PI economies have a smaller range of economic issues that they can influence
  - Inability to influence foreign exchange, interest rates
  - Inability of domestic policy to manage domestic demand level
  - Inability to apply sophisticated tax policy
- High significance of overseas remittances on national income
- An increasing focus on the smaller area as a decision-making unit

- Informing natural resource management is a higher priority for Pacific Island Countries, than those that develop priorities for international economic accounts

### *Features of the Pacific Island statistical systems*

- Although PI statistical systems embrace many areas of government, there is a disproportionate focus on the NSO operations with insufficient authority in statistical co-ordination
- There is a disproportionate share of statistical budgets needed for meta data management and documentation
- Quality measures are generally poor.

### *Some fundamental constraints of island state statistics*

- High level of population flows to other countries
- Two tier economic systems, with mix of subsistence and globally competitive economic sectors
- Dominance of non market transactions outside international measurement paradigms
- Population movement unable to be monitored well
- Small area statistics dependent on population census, with very limited use of administrative records
- May be difficult to get precise and timely information high impact economic transactions
- External profit taking by royalty reduces knowledge of underlying economic processes
- Internationally preferred priority in developing SNA of measuring flows, stocks and finances, may run counter to local interests in relative prices and natural resource assets

## Appendix: Assessing the capability gaps

The foundations of a statistical system are trust (*willingness to respond to enquiries, and to trust the results*), performance (*reasonable long term costs*), integration (*ability to relate information from disparate sources through their common properties*), responsiveness (*having information when it is useful for decisions*) and expertise (*having appropriate specialist skills and experience so that work can be trusted to be well done*)

The attached chart maps the potential regional investments and activities, with these foundations

**Table: Overview of Contribution of Potential Regional activities to promote a Pacific Island statistical system (incomplete)**

Activities	Trust	Performance	Integration	Responsiveness	Expertise
Conduct research on, and further develop, statistical methodology and technologies	Confidentiality Practices	Common systems for disclosure protection	Common Consumer Price Index Births and deaths Migration statistics Cross Country Migration Flows Labour market statistics Earnings statistics		Economic accounts Demographic measures MDG
Prepare, further develop and promote the adoption of statistical standards by Pacific Island States in order to improve the comparability of regional statistics, as well as the cost-effectiveness of their production	Enable comparisons between Pacific Island states Enable sensible measured benchmarks for Pacific Island plans	SIC révisión 2008 Information exchange protocols Common questionnaires	SNA	Timeliness analysis	Managing workshops and exchanges Establishing centres of excellence in particular fields
Advise and support Pacific Island States on statistical matters	Ensure that statistical sources meet basic standards	Facilitate development and exchange of common tools	Enable participation in development of common standards		Facilitating access to international expertise, and bilateral support programmes between national statistical offices Provision of funding for development
<b>Training is statistical compilation, analysis and reporting</b>	<b>Increases quality of work</b>	<b>Increases control over processes, and the range of activity able to be undertaken</b>	<b>Skills uplifted to manage classifications and frames, and common processes</b>	<b>Issues managed as they arise</b>	<b>Less activity dependent on scarce specialist expertise</b>
Compile statistical information on the basis of adequate data, undertake analysis and provide technical explanation to avoid erroneous interpretation or analysis	Normalise regular timely publication	Develop relevant standards Common compendia and databases for Pacific Island country statistics	Enable common classifications to be widely used through linkages to relevant tools and metadata Pacific Island wide application of methods	Regional work programme Supplement resources of smaller offices	Share regional specialist capability with all offices
Collect statistics from national statistical authorities and from		Information exchange protocols	Use common standards in regular	Publish monitoring of timeliness	Meet contemporary publishing practices

secretariats of international organizations the data required for regional statistical purposes		Collaboration in managing country response burden	publications and statistical databases		Develop relevant information management tools
Reinforce the process of cooperation with and between national statistical authorities through mutual exchanges of experts, participation in statistical activities and the development of training systems		Create centres of excellence Fund access to high quality trainers from development partners Facilitate workshops	Commission facilitation and organisation of various professional conferences Career opportunities with SPC, StatsNZ and the ABS Code of Practice		Regular engagement with experts from the wider region in key areas of methods and concepts
Cooperate with international organizations and third countries in order to facilitate the comparability of Pacific Island region statistics with statistics produced in other statistical systems, and, where appropriate, support third countries in the improvement of their statistical systems		SPC engage regularly with OECD, IMF, UN, World Bank, ECB statistical experts Make experts available for development projects			Facilitate staff exchanges between countries, SPC and other countries of the region Participate/led in training workshops

The capacity of National statistical offices tends to advance with both the resources made available to them, but also with the growing value placed on statistics by the societies that they serve. The small Pacific Island countries have little capacity to do other than manage statistical collections, generally needing external sources to provide the specialist support needed for methodology, systems and analysis. The mix of specialist skills needed in a statistical office is quite broad, and it will be quite rare in an office of fewer than twenty people to have the extent of specialisation needed for specialised analyses in demography, or economic reporting. Planning needs to be based on what is usually possible. Regional collaboration and the contributions of partner countries and organisations including SPC and PFTAC not only help lift the capacity of the NSO, but also can bring certainty from one year to the next in the capacity of the NSO.

A gap analysis of an individual country NSO contains two components:

- The gap between the level of capacity required to produce a particular set of statistics, and the current assessed capacity of the NSO
- The current performance, and the performance expected from the assessed capacity of the NSO, given its size and resources and the core competencies associated with its capacity assessment

STATISTICAL OFFICE MANAGING STATISTICAL COLLECTIONS FOR REGIONAL MINIMUM SET OF STATISTICS		
Level One	Assessment of	Level two
<b>Core statistics collected</b> Ad hoc operator of statistical surveys funded by government and others	<b>scope of statistical activity</b>	<b>Core statistics include key administrative sources</b> Core administrative records of Births and Deaths, External Trade, Taxation, Public Finance
<ul style="list-style-type: none"> <li>• Respondent management seen in response rates and quality of respondent information</li> <li>• Basic statistical design reflected in achievement of survey plan</li> <li>• Tools and systems often specific to activity, resulting in high marginal cost of all statistical</li> </ul>	<b>Central core competency</b>	<ul style="list-style-type: none"> <li>• Application of collection methods and practices to administrative records</li> <li>• Extension of statistical sources, without increase in respondent load</li> <li>• Very limited capacity for quality assurance.</li> </ul>

activity		
<ul style="list-style-type: none"> <li>• Respondent knowledge reflected in statistical designs</li> <li>• Build up classifications for ongoing application in future surveys</li> <li>• Manage competition for skilled resources between externally funded developments and ongoing domestic capability.</li> </ul>	<p><b>Characteristics of strong assessment in statistical capacity</b></p>	<ul style="list-style-type: none"> <li>• Sources accessible for statistical operations</li> <li>• Quality measures of coverage and quality</li> <li>• Continuing accumulation of experience</li> <li>• Effect use of expert support</li> <li>• Common systems and practices</li> <li>• Transfer statistical process management skills to administrative agencies</li> </ul>

<p><b>STATISTICAL SYSTEM PRODUCING ECONOMIC ACCOUNTS, DEMOGRAPHIC STUDIES, HEALTH, EDUCATION and ENVIRONMENT STATISTICS</b></p>		
Level Three		Level Four
<p><b>Statistical system with capacity for integrated sources</b>            Manage collection from the public and business.            Analytical reporting capability for business, households, population census and administrative records</p>	<p><b>Assessment of scope of statistical activity</b></p>	<p><b>Statistical processes include wide range of administrative records</b>            Have access to wide range of administrative records, with high degree of process integration for key administrative records  <b>includes specialist estimation of economic accounts, demographic statistics, environmental measures</b></p>
<ul style="list-style-type: none"> <li>• Statistical integration through               <ul style="list-style-type: none"> <li>○ Common frames</li> <li>○ Classifications</li> <li>○ Survey design</li> </ul> </li> <li>• Reduce marginal cost of new activity</li> <li>• Quality managed across sources</li> <li>• Measures of real economy</li> </ul>	<p><b>Central core competency</b></p>	<ul style="list-style-type: none"> <li>• Administrative and other sources have common classifications, enabling records to be matched and statistics compared</li> <li>• Improved statistical frame management</li> <li>• Increased small area statistics</li> <li>• Reduce survey load</li> <li>• Inter-censal population estimates</li> <li>•</li> </ul>
<p>Increased range of analytical measures that fit population systems and economic accounting frameworks</p>	<p><b>Characteristics of strong assessment in statistical capacity</b></p>	<p>Integration of statistical processes and administrative record management            Strong interaction between statistical staff and sector policy groups            Regular scheduled reporting of relevant matters</p>

## **Appendix: The importance of the System of National Accounts, and challenges in their adoption in Pacific Island countries**

### *Economic accounts, economic performance and public policy*

The system of national accounts is a globally accepted framework for comparing economic conditions, the nature and sources of change, the dynamics of the economy and the consequences. National accounts are based on statistical concepts which simplify the myriads of statistical measures that summarise transactions and institutions in and around the economy, so that they can be summarised through a sufficiently small number of ways that we can establish relationships, links and groups which allow us to make approximate comparisons over time, across countries across economic processes, within regions, industries and sectors of the economy. Through modelling current flows and balances we can measure the dynamics of economic processes, identify trends, imbalances and links that point to what the future might bring.

In all economies, regardless of their stage of economic development, the creation of wealth and its use and distribution are of both national and international interest, and this brings welcome and unwelcome participants in the economy. As a consequence, it is usual that:

1. Governments like to influence the competitiveness of national economies and the wealth generating capacity
2. Governments seek to redistribute some national wealth, provide public services, and finance what the government does.
3. Businesses invest in economic activity and make decisions based on the nature and level of wealth creating opportunities they can engage in, and they often need to plan in advance the duration and scale of investment they will bring to engage profitably in the national economy
4. Populations will seek to work and invest where they find the most successful balance between economic rewards and social obligations, often considering this in terms of their children as well

### *Measurement complexity in less well developed economies*

Well developed economies have statistical systems which generally assume high comparability in the economic circumstances of resident populations and resident economic activity units, in those economic transactions of significance are carried out through market mechanisms and have market values set by market processes. Less well developed economies cannot make that assumption, in part because the contribution of the informal sector to the economic condition of a significant and perhaps dominant share of the population.

The informal economy may be considered to be activity done to sustain economic well being and economic independence by creating something that can be sold or exchanged for things of material importance by people who do not have work opportunities in the market economy of practical impact on their economic conditions. We may add to our understanding if we can monitor the boundary of the informal and market sectors, in terms of exchanges of labour, assets and cultural matters. Measuring the informal sector has become linked with the practices on which national accounts are based. A concept of the informal economy that can be articulated in accepted statistical units and classifications is needed, but national accounts may be too limiting as a starting point, leading to an overly mechanistic delineation of the informal economy.

We need to know the share of the population dependent on the informal economy, the share of economic well being it generates, and how much this compares with the value of GDP. In measuring economic activity in PICT countries, we need the informal sector knowledge to quantify;

1. The economic conditions of the population
2. The growth potential of the economy
3. The role of economic activity outside of market processes

### *The central assumptions behind economic accounts*

The application of national accounts involves assumptions that can be difficult to meet in any economy. Four assumptions that have significance for PICT economies are;

1. Even within the most well endowed economies, generally, economic/ population statistics fail at measuring well major transformations in economic and social processes e.g. the service economy, ageing migration, fertility shifts, life expectancy, family form. In less well endowed countries, frequent large scale, multiple impacts from climate, commodity market volatility, financial instability, and population flows, health events add to this uncertainty of what needs to be measured at any time.
2. The concept of closed economy enables expectation of equilibrium to underpin modelling and economic management, as markets clear. Again, even in well endowed economies, limitations on statistical measurement result from globalisation, as seen in activity of multinationals, global finance markets, deregulation, economic union, loose borders and heightened income inequality. More generally, in many less well endowed countries, the legal, land base and territory all can differ, and may be neither stable nor controlled. Where geographic interdependence is high (rivers, pollution, border management) this can complicate governance and concepts of resident activity.
3. Transparency in prices at the border and across sectors is fundamental to establishing added value. In all economies, the capacity to allocate fair share of economic activity to the country's industry, sector and region undermined by reduced capacity to commodify and standardise activity and activity units. The rise in the share of national outputs made up of services is a good example of this. More often in less well endowed countries, price transparency in internationally traded activity is often difficult and complicates assessment

of added value and undermines establishing asset values from income flows, related market transactions and valuations.

4. Public and commercial institutions are able to record, classify and manage financial and operational information so that it can be included in the sources of national accounts, to a standard comparable to that expected of official statistical surveys. Much of the information essential to measuring the economic position and performance of enterprise cannot readily be obtained by statistical survey, yet it is recorded in administrative processes of government. The effectiveness of national statistics in all fields, economic, social, demographic and environmental, is variously affected by the quality and efficacy of government processes, and how their work is recorded. Statistical frameworks, in particular national accounts but also those for government financial statistics, balance of payments, and demographic statistics draw on administrative records for some significant element of the accounts. Record keeping and record management of the public sector overall may be more critical for the quality of statistical frameworks than what happens in the national statistical institute. In well endowed countries, the coverage, accuracy, timeliness and accessibility of administrative records is often a matter of serious concern. In less well endowed countries, the basic processes may not be in place.

Because the national accounts also brings a body of statistical thinking that involves classification, statistical units, concepts of residency, then the application of this thinking to single series that make up the national accounts gives them many of the fundamental properties of comparability and comparison that the national accounts bring. The methodology underpinning the economic statistics of well endowed countries involves a comprehensive mix of ongoing surveys of business, usually applying panel samples or through access to tax and other administrative records. Statistical survey systems tend to be very stable, and what is estimated is similar each period, in scope and reliability. Underpinning it all is the access to administrative records of business that inform national directories of business.

A national directory of business cannot be established without considerable commitment across government. The methods and processes that work best when a national business directory exists will not necessarily provide an optimal basis for survey design and operations when there is no national directory. Indeed other solutions may be preferred, until the long run goal of a comprehensive business directory is established.

## Appendix: Practical elements of planning in official statistics

### *The essence of a statistics plan*

The regional implementation plan will become a formal statement of the commitments that are judged to have the most significant impact over a ten year period in the scope, quality and relevance of Pacific Island region statistics, given the resources available within the country statistics systems, and that provided by partner organisations. The plan presents the key thinking, assumptions, commitments and conclusions. In doing this, the plan:

- **Provides authority for the mix of activity** within the statistical system, including infrastructure investments
  - Makes visible the expected range and quality of key statistics that can be provided from resources likely to be committed over the next ten years, and areas where additional resources would have the highest impact
  - Commitments to a mix funding, on both activity which will produce benefits in the current year, and investment which will later bring benefits
  - Gives final authority to statisticians for consistent actions on matters of integrity in statistical practice
- **Matches resources to the capacity** to organise and sustain a long run program of activity
  - Match the resources for statistics with groups of statistics and statistical developments
  - Gives a high priority in the initial years to making infrastructure as central focus of investment, and of performance benchmarks
  - Places considerable weight on the transfer to statistics of information and communications technology innovations from other fields of endeavour in the Pacific Island
  - Competence includes corporate management
- Makes clear how the **statistical system is kept relevant**
  - Is based on agreement on the order in which key policy areas will be the prime focus of attention over the ten years ahead
  - Engage with users and the uses made of the statistics
  - Shows the influence of innovation on future statistics
- Provides staff, users and government with a **shared understanding and commitment** to what the statistical office is to achieve in the future

- Establishes the foundation for strengthening the involvement of sector experts in the development of the statistics essential for their work.
- Explains how spending is balanced between current statistics and investment in future statistics
- Consistent reinforcement of integrity in statistical practice

### *An appropriate context for planning*

Assumptions which most usually need to be regularly assessed, and which usually cause modifications to the implementation plan include:

- ***User commitment***
  - Willingness of users to engage in what they use the statistics for
  - Ability to make known measures of the quality of statistics
  - Willingness to enforce statistical co-ordination within and among countries
- ***The maintenance of trust in statistical activity***
  - The points of reference for making decisions on matters of professional integrity are
    - The authority of the statistical office is established by laws or Ministerial decree
    - This is the legal basis for the authority to protect the integrity of official statistics at all stages of their preparation
    - It is reinforced by structures, roles, conventions, and protocols
- ***Capacity to organise***
  - Capacity to obtain and upgrade information technology and software that fit together
  - Ability to provide a career path for statistician and other professional streams
  - Able to organise staff so that they can share in training and development of skills and experience
- ***Continuity of funding***
  - Certainty in resources for the current and future years
  - Capacity to invest in multiple use systems and processes
- ***Enablement and capacity of staff to assure the integrity of official statistics***

- The trust of others is reinforced by the regularity and consistency of practices and responses by the NSO, and consistency across the region.
- Staff need to have a strong, consistent understanding of the ethics of official statistics for the authority they hold
- Staff need to have a sound knowledge of laws and protocols is spread through training, case law, thoughtful judgments