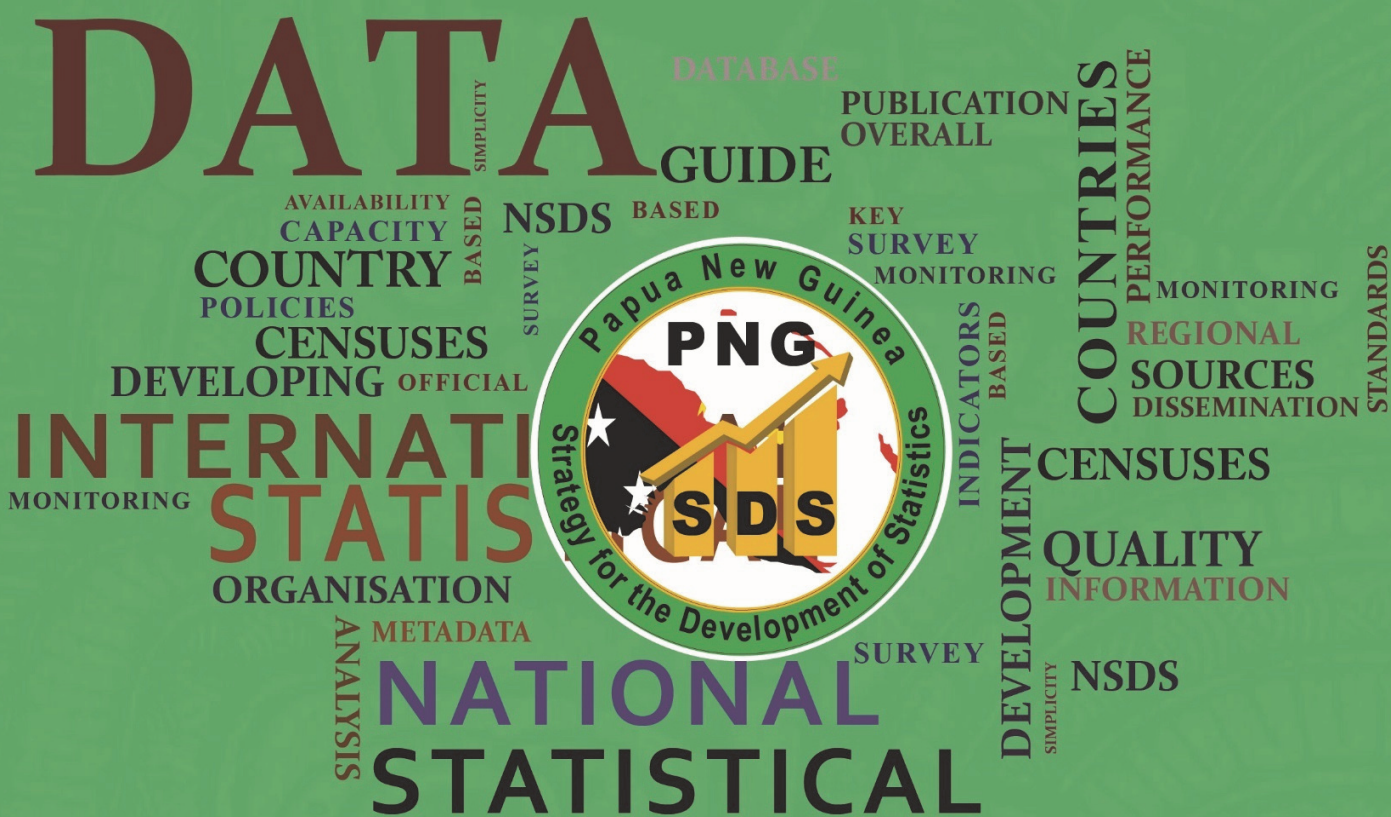




Independent State of Papua New Guinea
Department of National Planning & Monitoring

PAPUA NEW GUINEA STRATEGY FOR THE DEVELOPMENT OF STATISTICS 2018 – 2027 VOLUME 1



"Engineering the Path to the Development of Our Statistics"

This Strategy was approved by the National Executive Council on 18th January, 2018. It was formulated by the Department of National Planning & Monitoring.

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Port Moresby
Papua New Guinea

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Papua New Guinea Strategy for the Development of Statistics 2018 – 2027

Volume 1

**“Engineering the path
to the
development of our statistics”**

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FOREWORD



The O'Neill/Abel Government has recognized the importance of developing a reliable statistical system for the country that will integrate and manage all valuable statistics for evidence-based planning and decision-making to guide development. The Government has taken the decision to develop a statistical framework to manage the National Statistical System (NSS) of the country. The Department of National Planning & Monitoring (DNPM) with assistance from the National Statistical Office (NSO) under my Ministry have developed this Strategy which is the first step towards achieving this objective.

I congratulate the DNPM, NSO and all the members of the National Statistical System, national institutions and the provincial planners and statisticians who have provided their input into the preparation of the Papua New Guinea Strategy for the Development of Statistics (PNGSDS) 2018 - 2027.

As the Minister responsible for National Planning, I consider the PNGSDS 2018-2027 as a very important statistical Strategy that will guide the management and coordination of statistics in the NSS for evidence-based planning, monitoring and good governance. It is the initiative of the Government and the Government will support the implementation. I expect that through the PNGSDS, the allocation of resources for statistical activities will be better coordinated. I also expect that the statistics needed for planning, decision-making and for monitoring the targets of indicators in key Government development strategies such as the PNG Vision 2050, PNG Development Strategic Plan 2010-2030 (PNGDSP), the Medium Term Development Plans (MTDPs) and Sustainable Development Goals (SDGs) will be available regularly and on time.

I therefore, encourage all institutions in the Government, private sector and civil society to participate and cooperate actively in the implementation of the PNGSDS. I also urge all our Development Partners to include the PNGSDS in their development assistance programs in the next ten years. The Government of PNG and the Ministry of National Planning is in full support of the development and implementation of the PNGSDS.

A handwritten signature in blue ink, appearing to read 'Richard Maru', written over a horizontal line.

Hon. Richard Maru, BTECH, MBA, OBE, MP
Minister for National Planning

REMARKS AND ACKNOWLEDGEMENTS



Development of reliable and timely statistical information is a very important aspect for evidence-based planning, effective and efficient resource allocation; and strategic Government decision-making. Over the years, availability of reliable statistical information has been a challenge and the situation will continue to remain that way unless a strategic framework is developed to coordinate and manage all development statistics in the country.

In the wisdom of the Government of Papua New Guinea (GoPNG), the National Executive Council directed the Department of National Planning & Monitoring to develop a statistical development framework to improve and integrate all statistics in the country, into one system.

The formulation of the PNGSDS 2018-2027 is based on several assessments through inter-agency collaboration which identified the need to address the chronic data gaps in the country by strengthening coordination and dialogue mechanisms between agencies of the NSS, to improve data quality by using sound methodology for the production of quality data. The PNGSDS therefore, aspires to have a well-structured NSS that will “tell factual stories” about the progress of the country and will assist the Government’s primary objective of improved service delivery to Papua New Guineans and positively impact on their lives. It provides the way forward for the development of statistics for the next ten years, in PNG.

The PNGSDS has two Volumes: Volume 1 defines the concept of the Strategy while Volume 2 is the Implementation Plan. The PNGSDS Implementation Plan (Vol. 2) outlines programs and activities for strengthening coordination and dialogue between the NSS agencies, production of timely and quality statistics and statistical capacity building.

The Strategy will support the production of statistics for the Government’s national policy priorities such as the PNG Vision 2050, PNGDSP, MTDPs and SDGs. It is extremely useful for better decision-making, formulation of evidence-based policies and strategies and tracking of the targets and indicators of the national priorities. I therefore, call on all stakeholders to partner with relevant Government departments/agencies to further these efforts and ensure the successful implementation of this very important strategic framework for the NSS of our country.

The DNPM will work towards implementing the PNGSDS Implementation Plan (Vol. 2) in line with Alotau Accord II which requires the Department to establish a National Data Collection Center. It will require the concerted efforts and cooperation of all the agencies in the NSS to improve the statistical situation in the country.

I am grateful to the members of the NSS for their contributions to developing the PNGSDS. I also thank the members of the PNGSDS Steering Committee (SC), Technical Working Committee (TWC), PNGSDS Working Team, participants at the User-Producer Forum, key NSS agencies, staff from DNPM and NSO, the PNGSDS Manager, Mr. John Aseavu Igitoi, the two national sector Consultants, Mr. Taunao Vai and Dr. Wilfred Kaleva and everyone who

contributed and worked tirelessly in developing this Strategy. I also acknowledge and thank the Partnership for Statistics in Development in the 21st Century (PARIS21) for providing the needed Technical Assistance and timely financial support during the initial phases of the PNGSDS formulation.

I commend the O'Neill/Abel Government for taking the initiative to address the statistics challenges in the country and for the support provided in the development of the PNGSDS and I look forward for the Government of PNG to take ownership and implement the Strategy. I also look forward to collaborative efforts and support from our Development Partners and all concerned stakeholders in implementing the PNGSDS 2018-2027.



Hakaua Harry
Secretary

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ACRONYMS

ASYCUDA	Automated System of Customs Data	IRC	Internal Revenue Commission
BBSC	Bulletin Board on Statistical Capacity	MDGs	Millennium Development Goals
BLS	Business Liaison Survey	MTDP	Medium Term Development Plan
BPNG	Bank of Papua New Guinea	MTDS	Medium Term Development Strategy
CBA	Census of Business Activities	NACS	National Aids Council Secretariat
CIR	Civil Identity and Registry	NEC	National Executive Council
CPI	Consumer Price Index	NGO	Non-Government Organization
DHERST	Department of Higher Education, Research, Science & Technology	NPHC	National Population and Housing Census
DPLGA	Department of Provincial and Local Government Affairs	NSO	National Statistical Office
DHS	Demographic and Health Survey	NSS	National Statistical System
DNPM	Department of National Planning & Monitoring	NSSCS	National Statistical System Coordination Structure
DoE	Department of Education	PARIS21	Partnership in Statistics for Development in the 21 st Century
DoH	Department of Health	PNGDSP	Papua New Guinea Development Strategic Plan 2010 - 2030
DoT	Department of Treasury	PNGSDS	PNG Strategy for the Development of Statistics
DQAF	Data Quality Assessment Framework	PSM	Public Service Management
FPOS	Fundamental Principles of Official Statistics (UN)	SBA	Survey of Business Activities
GDI	Gender Development Index	SC	Steering Committee
GDDS	General Data Dissemination System	SCU	Statistical Coordination Unit
GDP	Gross Domestic Product	SDGs	Sustainable Development Goals
GoPNG	Government of Papua New Guinea	SDDS	Special Data Dissemination Standards
HDI	Human Development Index	SOAP	Statistical Operations And Procedures
HIES	Household Income Expenditure Survey	StaRS	National Strategy for Responsible Sustainable Development
HPI	Human Poverty Index	SWG	Statistical Working Group
ICT	Information, Communication and Technology	SWOT	Strength Weakness Opportunity and Threat
IMF	International Monetary Fund	TSC	Technical Statistical Committee

PNGSDS Goal

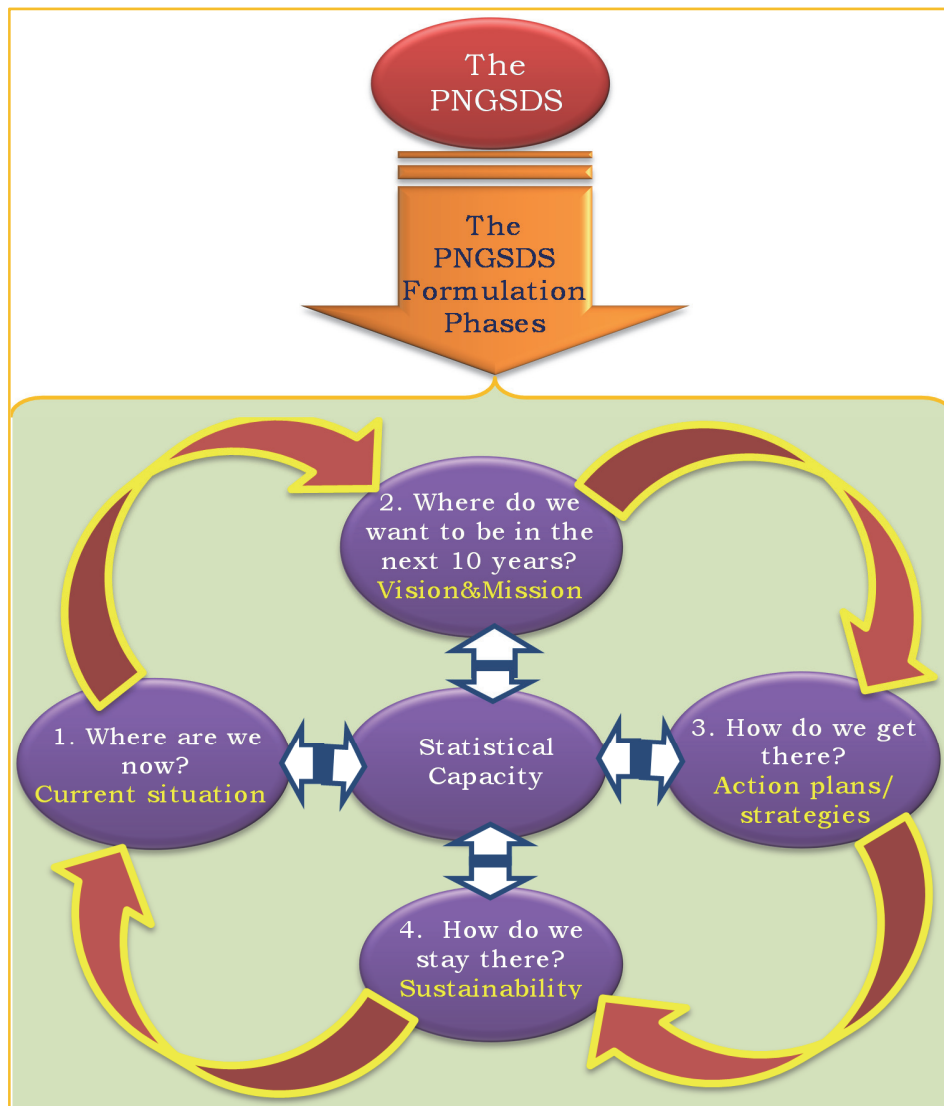
Goal

The Papua New Guinea Strategy for the Development of Statistics to be the overarching driver of all statistical plans, programs and activities of the Papua New Guinea Statistical System

PNGSDS formulation process

The PNGSDS 2018-2027 was formulated using the National Strategy for the Development of Statistics (NSDS) Guidelines of the *Partnership in Statistics for Development in the 21st Century (PARIS21)* which is recognized as the international standard for statistical strategy development.

The PNGSDS will strengthen the Papua New Guinea Statistical System and support PNG's development agenda through evidence-based process. It is a cycle that will have two mid-term reviews before a major review in 2027.



EXECUTIVE SUMMARY

The Government of PNG through the National Executive Council (NEC) Decision No. 135/2010 deliberated on the lack of core statistics for informed decision-making and evidence-based planning and as a result directed relevant Government departments responsible for producing and using statistics to develop a National Strategy for the Development of Statistics (NSDS) for the country. Development of a reliable and timely statistical system is necessary to track the achievement of major Government development initiatives and national outcome indicators as outlined in the PNG Vision 2050, PNGDSP 2010 – 2030, MTDPs and the SDGs.

The National Statistical Office is the mandated agency to produce and disseminate official national statistics while the sector agencies in the NSS, by virtue of their functions, also produce official statistics, which are relevant to their respective work programs. However, the lack of coordination and the sharing of core statistics between NSO and sector agencies is a major constraint in the production of reliable and timely statistical data for the country.

The PNGSDS is an overarching statistical framework to ensure comprehensive, effective and sustainable development of statistics in the country. The Strategy seeks to involve all the stakeholders in the NSS; data suppliers, statistics producers, data users, training institutions, local and international organizations and Development Partners in the development of statistics to ensure effective implementation of the Strategy.

The Strategy addresses the key challenges and constraints that prevent the NSS from effectively producing the required quality official statistical data. These challenges include: financial constraints, untimely release of funding which results in non-collection of data or delays in data collection and analysis of data; non-production of key statistics, data gaps; inaccurate and low quality of data, lack of free flow of information and data between agencies; difficulties in accessing data as in many instances there are confidentiality bars; non-sharing of data or regulatory obstacles to access data; lack of coordination between the NSS agencies; lack of staff and inadequate statistical capacity for data analysis and the need to recruit more statisticians and skilled staff to strengthen and improve capacity in the country.

The challenges and constraints revealed by situational, and strengths, weaknesses, opportunities and threats (SWOT) analyses formed the basis for the design of the Strategy. It seeks to amplify the strengths and eliminate the weaknesses in the NSS by proposing five strategic themes which are translated into objectives and activities in the action plan.

- 1) Strengthening the coordination mechanism;
- 2) Developing human resource capacity;
- 3) Strengthening the quality of the NSS products;
- 4) Disseminating, accessing and using statistical information; and
- 5) Mobilizing funding for implementing the Strategy.

PART ONE

BACKGROUND AND ASSESSMENT

SECTION 1: BACKGROUND OF THE PNGSDS

1.1 Introduction

The PNGSDS 2018 - 2027 is the first National Statistical Strategy for PNG. This document charts the roadmap for key national statistics to be properly sequenced, coordinated and managed. It will become the driver for all vital statistical programs, plans and activities for the next 10-years, 2018 - 2027 and is intended to assist in monitoring the progress of development in the country.

The vision, mission and core values of the PNGSDS reflect the aspirations of the Government of PNG to have a coordinated NSS that produces quality, timely and accurate statistical information for evidence-based policy, planning, decision-making, monitoring and evaluation of national development progress.

1.1 Rationale for the Strategy

The impetus for the PNGSDS came about as a result of the following:

- The development of the PNGSDS is strongly supported by the Government of PNG. The NEC Decision No. 135/2010 expressed concern about the lack of statistics for informed decision-making and evidence-based planning and directed relevant Government departments responsible for producing and using statistics to improve the situation by developing the National Strategy for the Development of Statistics;
- In 2014, the NEC deliberated on the poor state of statistics and the need to overhaul the NSO. The NEC Decision No.162/2014 directed the DNPM and the DoT to take charge of reforming the NSO. The NEC endorsed the formation of the NSO Reform Steering Committee comprising DNPM, DoT, NSO and the Bank of Papua New Guinea (BPNG) to oversee the review and restructure, and the establishment of a Secretariat under the DoT to give effect to the statistical reform process;
- The PNG Vision 2050 aims for PNG to be a “smart, wise, fair, healthy and happy society by 2050”. In addition, PNG aspires to be a middle-income earning country by 2050 where social and economic indicators reflect that PNG is “ranked in the top 50 in the United Nations Human Development Index”. Growth in the social and economic sectors play prominent roles in achieving the Goals of the PNG Vision 2050;
- The Government of PNG’s national development plans such as the MTDPs, PNGDSP 2010-2030 and PNG Vision 2050, however, recognize the need for relevant statistics required for evidence-based planning and decision-making, and for monitoring the targets of these strategic development plans. The MTDP 2011 - 2015 National Goal 5.10 states that the NSS is to:

- *Provide high quality national statistical service for development planning, policy formulation, decision-making and research through the production of accurate, comprehensive and timely statistics of an international standard (PNGDSP, 2010. p.124);*
- In 2013, the Ministry of National Planning, through the DNPM and in cooperation with the NSO, other statistics producers and users, initiated moves to develop a NSDS/PNGSDS which aimed at formulating a roadmap of activities to improve the coordination of the NSS and address data gaps. On the occasion of the first consultation workshop organized by DNPM and NSO on formulating the PNGSDS, the “National” Newspaper (October 23, 2013)¹ under the headline “Poor data affects plans” reported the Acting Secretary for the DNPM stating that PNG lacked sound evidence-based policies which resulted in poor development outcomes because of a fragmented and uncoordinated NSS. The Acting Secretary confirmed that the new Population Policy could not be completed because of lack of data from 2011 National Population & Housing Census (NHPC) and highlighted the need to build statistical capacity within the Government departments to support design, monitoring and evaluation of all development plans and strategies. This illustrates the Government’s concern of the critical situation regarding data gaps and its intention to address the issue for planning and monitoring of development plans to achieve the development objectives of the country (Kaleva, W. 2013. p.34)²; and
- An assessment of producer and user agencies in the NSS was conducted which also identified the need to strengthen the coordination of the NSS and to address data gaps (DNPM, 2014³). Other assessment activities such as the User-Producer Forum, interviews with key agencies, PARIS21 Consultant’s reports which emphasized the need to do something about addressing data gaps, improving coordination and dialogue between data producers and users, the need for timely conduct, analysis, dissemination, access to statistical data and timely funding of census and surveys gave more reasons for the formulation of the PNGSDS.

1.3 Process of formulating the PNGSDS

The plans to formulate the PNGSDS were set in motion in 2013 when the Ministry of National Planning, through the DNPM in cooperation with NSO, other statistics producers and users formulated a roadmap of activities to improve the coordination of the NSS and address data gaps. Discussions were held on possible ways forward to formulate the PNGSDS which eventually agreed on the following process:

- (i) Establishment of the PNGSDS Working Team;
- (ii) Formation of the Technical Working Committee (TWC);
- (iii) Setting up of the Steering Committee; and

¹The National Newspaper, Port Moresby, 23 October, 2013

²Kaleva, W. 2013. Evaluation of UNDP Millennium Development Goals Program in Papua New Guinea. An Independent Consultant Report.

³ DNPM. 2014. PNG National Statistical System Assessment Report

(iv) Management and administrative support.

This is also in line with the NSDS Formulation Guidelines of the PARIS21.

The formulation followed established processes and is an evolving statistical cycle that will be reviewed consistent with statistical needs of the country, anchored within the PNGSDS. The formulation process followed these phases:

- **Phase one - Assessment stage:** In phase one, various assessments of the NSS were conducted (refer to PNGSDS Assessment Report, 2014)⁴;
- **Phase two - Crafting the Vision and Mission:** The second phase involved crafting the NSS Vision and Mission to promote evidence-based planning and decision-making aligned with the country's development plans;
- **Phase three - Development of Action Plans/Strategies:** Phase three involved the formulation process and action plans which were developed consistent with the strategic themes; and
- **Phase four – Sustainability:** Phase four involved the setting up of an effective coordination mechanism and enhancing the statistical capacity of the NSS and the production of quality statistics which will enable proper planning, resource mobilization, efficient resource allocation, implementation and monitoring of policies and development activities.

Participants in the formulation of the Strategy

There were a lot of participants in the workshops, user-producer forum, interviews and various PNGSDS committees in the formulation of the Strategy.

Similarly, many ministries, departments, institutions and agencies participated in the formulation of the Strategy. The following country national statistical strategies were consulted in developing the PNGSDS: South Africa⁵, Nigeria⁶, Ghana⁷, Philippines⁸, Rwanda⁹, Maldives¹⁰, Cambodia¹¹ and Senegal¹².

⁴PNG Strategy for Development of Statistics. Assessment Report, 2014

⁵ Statistics South Africa Strategic plan 2003/2004 – 2005//2006. Republic of South Africa. 2002

⁶Statistical Master Plan for the Nigeria National Statistical System (2004/5-2008/9). Nigeria. 2003.

⁷Ghana Statistics Development Plan, 2009-2013. Ghana. 2008

⁸Philippine Statistical Development Program 2011-2018. Philippines. 2010

⁹National Strategy for the Development of Statistics, 2009-2014. National Institute of Statistics of Rwanda. Republic of Rwanda. 2008

¹⁰ Maldives Country Action plan for improving Agriculture and Rural statistics. Maldives. 2013

¹¹ Statistical Master Plan for Cambodia 2006-2015. Kingdom of Cambodia. 2005

¹² Senegal Main Report 2008 – 2013. Senegal. 2007

SECTION 2: THE NATIONAL STATISTICAL SYSTEM

2.1 Introduction

This section provides an overview of the NSS and describes the main elements of the NSS and core statistics and the key agencies responsible for the statistics in the NSS.

2.2 The elements of the NSS

The NSS consists of institutions that provide statistical information services to the public and the Government for planning, decision-making, monitoring, evaluation, research, analysis and training. The NSS constitutes the elements of the system namely the producer groups, user groups, supplier entities and the development institutions.

The NSS is made up of the following five main elements:

- 1) The National Statistical Office of Papua New Guinea – the Government’s central statistical production and coordinating agency;
- 2) Various Government statistical agencies that provide statistical data (data producers). These data constitute the official statistics of PNG including those produced by NSO;
- 3) Institutions that use data (data users);
- 4) Entities that provide statistical data, including public and private institutions, non-governmental organizations, households and individuals (respondents/data providers); and
- 5) Research and training institutions including higher learning institutions (those that provide education/training on statistics).

Under the 1980 Statistical Services Act, NSO is mandated to coordinate, manage, designate and disseminate all statistics as official information. The NSO has three main roles:

- To conduct surveys and censuses;
- To effectively coordinate the NSS and to build capacity within NSO and other agencies/departments aligned to international standards and practices; and
- To ensure that national statistics are timely, reliable and disseminated on schedule.

2.3 Sources of statistical information

There are two primary sources of collecting statistical information:

Firstly, departments collect statistical information, either for their own needs or data that can be used by others. This is administrative data. For instance, PNG Customs records imports and exports data using a specifically designed form or computer software (A System of Customs Data - ASYCUDA ++). The information can be used to produce other data or indicators such as Balance of Payments.

Secondly, data is collected through surveys and censuses by administering questionnaire to companies, households, individuals or any selected respondents/data providers.

These methods of collection involve myriad of role players in statistical production. For example, in order for NSO to generate Gross Domestic Product (GDP) figures, the PNG Customs will provide trade data, the DoT will provide government finance statistics, the BPNG will provide finance and banking statistics, the IRC will provide tax data and the NSO will conduct census/surveys of economic activities. Therefore, there is a need to identify who is collecting what information and through what method in the NSS in order to establish a proper coordinating mechanism.

2.4 Key statistical agencies and statistics in the NSS

A variety of statistical information is produced by various departments for their own administrative purposes. The NSO and other agencies produce or provide core statistics for socio-economic indicators. Table 2.1 below shows core statistics linked to key indicators in MTDPs and PNGDSP 2010 – 2030 and agencies responsible for collecting the data. See Annex 2 for detailed table of PNGSDS 2018 – 2027 Core Statistics and Indicators, as well as agencies responsible for collecting and compiling the data and the periodicity of producing the core statistics.

Table 2.1: Core statistics and key statistical agencies in the NSS

Statistics/Indicators	Data Source/Activity		Agency Responsible
	Administrative	Survey/Census	
Economic sector			
National Accounts (GDP)	Trade statistics, Banking & Finance data, Government Finance Statistics (GFS), tax data/statistics	Census of Business Activities (CBA), Business Liaison Survey (BLS), Consumer Price Survey (CPS)	NSO/Bank of PNG (BPNG)/Internal Revenue Commission (IRC)/PNG Customs, Dept. of Treasury (DoT)/Dept. of Finance (DoF)
Quarterly and annual inflation rates		CPS for Consumer Price Index (CPI)	NSO
Employment & unemployment data		National Population & Housing Census (NPHC), BPNG Employment Survey, Dept. of Higher Education, Research, Science & Technology Graduate	NSO/BPNG/Labour & Industrial Relations/ Department of Higher Education/Research, Science & Technology (DHERST)

Statistics/Indicators	Data Source/Activity		Agency Responsible
	Administrative	Survey/Census	
		Destination Survey (GDS), CBA	
Import & export revenue	Tax returns, duty tax		PNG Customs/IRC
Household income and wage rates (rural versus urban)	Minimum wages determination	Household Income & Expenditure Survey (HIES)	NSO/Minimum Wages Board
Agricultural productivity (meat, coffee, cocoa, oil palm, copra)	Commodity Board Annual Report	National Agriculture Survey (NAS), CBA	Commodity Boards/ Department of Agriculture & Livestock (DAL)/NSO
Fisheries exports (Tuna, prawn)	Trade statistics	CBA	National Fisheries Authority/NSO
Timber (value of total exports)	Trade statistics	CBA	National Forest Authority/PNG Customs/NSO
Value of crude oil production and exports, LNG revenue	Trade statistics	CBA	Dept. of Petroleum & Energy/PNG Customs/IRC/NSO
Imports and Exports (volume, revenue)	Trade statistics	CBA	PNG Customs/IRC/NSO
Satellite accounts - statistics on environment, tourism, climate change	Administrative statistics from TPA, Environment & Conservation and Office of Climate Change	CBA	Tourism Promotion Authority (TPA)/ Conservation & Environment Protection Authority (CEPA)/NSO/Climate Change Development Authority (CCDA)
Ease of doing business		Financial Capability Survey	Institute of National Affairs (INA)/BPNG/World Bank/IPA
Social sector			
Poverty		HIES	NSO
Human Development Index	Education statistics, Health statistics, Trade statistics, Poverty statistics	School Census, Demographic & Health Survey (DHS), HIES, NPHC, CBA, BLS	NSO/BPNG/PNG Customs/DoT/DoE, Department of Health
Population growth rate, Urban/rural population		NPHC	NSO
Internal migration and urbanization (rural to urban)	Office of Urbanization statistics	NPHC	NSO/Office of Urbanization
Land access	Lands & Physical Planning Annual Report		Department of Lands & Physical Planning (DLPP)
Health			

Statistics/Indicators	Data Source/Activity		Agency Responsible
	Administrative	Survey/Census	
Infant mortality rates (up to 12 months, under five), maternal mortality rates, life expectancy, fertility rate, morbidity rate	Health Annual Report, National Health Information System (NHIS)	NPHC, DHS	NSO/DoH
Crude birth rate	Vital statistics, Health Annual Report, NHIS	NPHC, DHS	NSO/DoH/Civil Registry Office (CRO)
Supervised deliveries, Ante-natal care, immunization coverage	Health Annual Report, NHIS	DHS	NSO/DoH
Education			
Net admission rate	Education Annual Report	School Census	DoE
Net enrollment rate, gross enrollment rate, completion rate (Grade 8), Sex enrollment ratios (grade aggregated, age aggregated)	Education Annual Report	School Census, NPHC	DoE/NSO
Retention rate, average class size, teacher to pupil ratios	Education Annual Report	School Census	DoE
Literacy rates - Youth & adult	Education Annual Report	HIES, NPHC, DHS	NSO/DoE
Higher Education			
Enrollment, Graduates (tertiary education), capacity of various institutions & growth in capacity	DHERST Annual Report	GDS, NPHC	DHERST/NSO
Skilled workforce.	DHERST Annual Report, DHERST Labour Report, Labour Annual Report	NPHC, Labour Force Survey (LFS)	NSO/Department of Labour & Industrial Relations/DHERST
Transport			
Percentage of national roads in good condition	Transport Annual Report, Works Annual Report		National Roads Authority/ Department of Transport/DoW
No. of wharves, jetties, ports	Ports Annual Report		PNG Ports
Airstrips, Airports	National Airports Annual Report		National Airports Corporation/Dept. of Transport

Statistics/Indicators	Data Source/Activity		Agency Responsible
	Administrative	Survey/Census	
Safety compliance (Airports, Wharves)	CASA Annual Report NMSA Annual Report		Civil Aviation Safety Authority/National Maritime Safety Authority
Utilities			
Proportion of population having access to safe water (piped water)	Annual Report	DHS, HIES	Water PNG/Eda Ranu/NSO
Improved sanitation	Annual Report	DHS, HIES	Water PNG/Eda Ranu/NSO
Postal services	Annual Report	HIES	Post PNG/NSO
Household with access to electricity	Annual Report	HIES	PNG Power/NSO
Gender			
Gender development index	Health Annual Report	HIES, NPHC, CBA, BLS	NSO, BPNG/PNG Customs/DoT/DoF/DoE/DoH
Female to male enrollment (in schools)	Education Annual Report	School Census, NPHC, HIES	DoE/NSO
Females in tertiary Institution	DHERST Annual Report	DHERST Annual Survey, NPHC	DHERST/NSO
HIV			
Prevalence	Health Surveillance data, NHIS	Behavioral Surveys, DHS	DoH/NACS/NRI/NSO
% of PLHIV on ART	Health Surveillance data, NHIS	Behavioral Surveys, DHS	DoH/NACS/NRI/NSO

2.5 Legal Framework for the NSS

The 1980 Statistical Services Act (Chapter 386), particularly Section 17 empowers the National Statistician to produce and coordinate official statistics among the elements of the state regarding the application of appropriate quality criteria and standards, classifications and procedures for statistics, in order to:

- advance the quality, consistency, comparability and optimum use of official statistics; and
- avoid unnecessary duplication in the collection and publication of statistics.

Under Section 19 of the Act, the National Statistician authorizes the conduct of surveys by other state agencies following set standard criteria.

SECTION 3: ASSESSMENT OF THE NATIONAL STATISTICAL SYSTEM

3.1 Introduction

This section provides the main findings of the assessment of the NSS. The challenges and constraints identified by situational and SWOT analyses forms the basis for the Strategy.

A number of sources were used to assess the current PNG NSS. These were:

- Assessment conducted by DNPM and NSO in 2013 (DNPM, 2014)¹³ through the use of questionnaires and interviews with the NSS agencies;
- PARIS21 Consultant's Report (Albert, 2014)¹⁴ based on interviews with key personnel at the NSO and other key NSS agencies;
- The World Bank's rating of countries in the Bulletin Board on Statistical Capacity (BBSC) based on a set of criteria consistent with international standards such as methodological soundness in compiling statistics, data source, timeliness and periodicity (World Bank, 2013)¹⁵;
- Assessment of NSO through interview of key personnel at NSO (Igitoi, 2014)¹⁶;
- Statistics Producer-User Forum which discussed the user and producer needs and challenges with participants from the NSS agencies and the provincial Government representatives;
- National Sector Consultants' personal interviews, group interviews, formal and informal discussions with key agency members;
- Report on MDGs target indicator data gaps in PNG (DNPM & UNDP, 2010)¹⁷; and
- Second National Progress Report on MDGs for PNG (GoPNG, 2010)¹⁸, UNDP PNG Office, 2010 Assessment of Development Results in PNG.

¹³ PNG National Statistical System Assessment Report, Department of National Planning & Monitoring, 2014

¹⁴ Albert, J.R. Mission Report regarding progress on formulation of PNG NSDS & ways forward. Paris21 Consultant. Port Moresby. 2014

¹⁵ World Bank. Bulletin Board on Statistical Capacity. 2013

¹⁶Igitoi. 2014. A Report on the Assessment of NSO

¹⁷ DNPM & UNDP. 2010. Report on Data Availability, Completeness and Accuracy for Monitoring MDGs and Human Development in PNG.

¹⁸GoPNG. 2010. Second National Progressive Report on MDGs for PNG

3.2 Assessment of NSO and the NSS

A summary of the NSO and the NSS assessments, respectively are discussed below.

3.2.1 The NSO Assessment

The NSO is the mandated organization for the production of official statistics in PNG. Before the design of an appropriate National Statistical Strategy, it was therefore important to assess the current status of NSO as an organization and the challenges in producing quality and timely statistics for the country. The assessment is based on the National Consultants' interviews with key personnel at NSO, PARIS21 Consultant's Report and an assessment of NSO by Mr. John Igitoi, the PNGSDS Manager (DNPM).

SWOT Analysis of NSO

Table 3.1 below shows the results of a SWOT Analysis of current status of NSO developed in consultation with NSO staff.

Table 3.1: SWOT Analysis of NSO

Categories	Strengths	Weaknesses	Opportunities	Threats
Administration & Management	Management in place with qualification	Lack management capabilities	Properly qualified management	Improper decisions and mismanagement
Human Resource	Qualified & experienced (technical), multi-tasked	Lack of appropriately trained (specialist) manpower, multi-tasked, high staff turnover, staff retention, lack of merit-based recruitment, lack of mentoring & coaching	Specialist skills training (in-country and out of country), work attachment	High staff turnover, lack of merit-based recruitment, skilled manpower misplacements
Financial Resource	National Budget appropriation	Inadequate budget appropriation and untimely release of funds	Development Partners and GoPNG support	Non conduct and delay of core activities
Information, Communication & Technology (ICT)	Access to data processing software in some divisions	Lack of appropriate technology, utilities & poor communication of results (dissemination & access)	Acquisition of appropriate technology	Regular power interruptions, obsolete equipment and software
Office Accommodation	Office space available	Inadequate data storage facilities, inadequate repair & maintenance	Potential for relocation	Denial of access due to landlord issues

Human Resources

The SWOT Analysis shows that although NSO has qualified staff members who are experienced in conducting surveys and censuses and in compiling official administrative statistics such as National Accounts; there is a need to up-skill with specialist skills,

such as data analysis and report writing. Those with specialist skills need to mentor the junior members of staff as this is vital for succession planning and sustainability. It is recommended that these models of training; in-house training, in-country and out of country training, be used to up-skill staff in their respective divisions.

The retention of staff in NSO is a major issue as staff turnover is high because of lack of merit based incentives. The NSO staff members are on lower salaries compared to staff in the other Government departments. Reclassification of staff (for example, in same category as scientific officers or technical officers) could address the high turnover.

Table 3.2 shows current staff strength per division and the average annual budget for the years (2011 - 2014).

Table 3.2: NSO staff (2014) and annual average Recurrent Budget (2011 - 2014)

Statistical Divisions	Grade 12 or lower	Tertiary other than degree	Bachelor Degree	Master Degree	Total	Annual average Budget
Technical Divisions						
Economics Statistics	13	4	4	1	22	1,628,841
Population & Social Statistics	10	10	6	1	27	1,751,936
Sub-total	23	14	10	2	49	3,380,777
Non-Technical Divisions						
Policy & Coordination	5	2	9	3	19	NA
Corporate Services	14	16	7	0	37	3,200,584
Office of the NS	5	0	3	1	9	NA
Sub-total	24	18	19	4	65	3,200,584
Total	47	32	29	6	114	6,581,361¹⁹

The above table shows that NSO divisions' staff on strength which clearly shows that more staff need to be recruited for the technical divisions – economic and social sector. For example, currently seven staff members collect and analyze data for price statistics and are expected to report CPI quarterly. The data collection takes place every week for market produce, monthly for food and quarterly for other items in the CPI Basket, in six CPI towns nation-wide. There is evidently a need to double or triple the number of people currently engaged to efficiently conduct the Household Price Survey (HPS) for calculating the CPI.

The nationwide Census of Business Activities (CBA) or the Survey of Business Activities (SBA) which contributes about 90% of the data for the compilation of the national accounts (GDP) currently engages 15 staff members to collect and analyze the data. Ideally, there should be 25 staff members engaged in the conduct of SBA. Staff members from other sections in the Economics Division assist in the collection of data to make up for the short fall. This is a short term solution which is not ideal.

¹⁹ The **total annual average** budget includes funds for the Office of the National Statistician (NS) and Policy & Coordination Division.

Financial Resources

Table 3.2 is indicative of the annual average budget for the last five years to 2014, when the assessment was initially commissioned. About 65.4% is for emoluments and 34.6% is spent on goods and services. The Technical Divisions receive 51.6% while the Support Divisions get 48.4% annually on average. Inadequate funds are an issue for statistical activities.

Constraints in financial resources is the biggest challenge in the production of comprehensive, timely and quality statistics. For example, the CBA, which was essential for computing the GDP, was not conducted from 2003 to 2013 but conducted in 2014 due to lack of funds. BPNG resorted to collecting data through the Business Liaison Survey (BLS) which resulted in estimated GDP. The untimely release of funds prevented or delayed the conduct of surveys or census and led to further delays in the analyses, publication, release and dissemination of statistical information. Investment in statistics is necessary in order to transform the current state of statistics in PNG.

Information, Communication and Technology

Most divisions in NSO have access to computers for word processing, data entry and data processing but access to internet or a local area network (LAN) is a challenge for most divisions and branches. The lack of appropriate technology, software and skills for data analysis, storage, centralized data base, archiving, dissemination and access to statistical information is still a challenge. The use of ICT at NSO for data collection, processing, analysis, storage, dissemination and communication must be strengthened at all costs.

Office Accommodation

There is ample office space for most divisions and branches at the current location. However, there are inadequate data storage facilities and the buildings are in need of regular repair and maintenance.

Challenges in production and dissemination of data

NSO was unable to provide comprehensive information on businesses and industries in the country for the compilation of national accounts. It was because business activity surveys have not been conducted since 2001, which was directly related to the limited financial resources but also due to inadequate statistical human resources.

The processing of the National Population & Housing Census data was hampered by the lack of manpower for data entry and technical expertise for data analysis and report writing. There is a need to build statistical capacity for analysis of data and report writing. Its capacity has been weakened over the years (DNPM. 2014. p.17)²⁰.

²⁰ DNPM. 2014. NSS Assessment Report.

3.2.2 Assessment of the NSS

SWOT Analysis of the NSS

A SWOT Analysis based on the assessment conducted by DNPM and NSO (DNPM, 2014)²¹ is shown in Table 3.3 below.

Table 3.3: SWOT Analysis of the NSS

Quality Dimension	Elements	Indicators
Statistical capacity needs -The NSS has some strength in legal frameworks, has identified weaknesses in statistical capacity and has very wide opportunities for capacity development. Perceived threats are manageable.	1. Strengths – <i>The existing capacity of the NSS is consistent with requirements of the international standards, guidelines and good practices. Legal frameworks are in place.</i>	<ul style="list-style-type: none"> • Various approaches (sectoral approach, etc.), laws/acts on land records, forestry, fisheries, telecommunications, taxation, governance, etc. updated & in place. • Most statistical agencies plan for human resource development. • Almost all statistical agencies have strong legal frameworks in place.
	2. Weaknesses – <i>While improvement programs have been planned, resources in the statistical system are not plentiful to meet statistical production requirements. Statistical coordination is weak, also because of limited human resources at the NSO.</i>	<ul style="list-style-type: none"> • Many agencies lack properly trained statisticians and statistical officers are attached on ad hoc basis. • Funds and resources are limited in many statistical agencies and do not meet the statistical production requirements. • Most statistical agencies do not have in place institutional linkages & coordination arrangements and the NSO does not enforce its statistical coordination mandate.
	3. Opportunities – <i>Mechanisms are in place to provide and enhance the NSS.</i>	<ul style="list-style-type: none"> • Funds and resources can be made available to agencies from either the Government or its Development Partners to produce statistical outputs. • Most agencies are willing to establish linkages and coordination if there are proper and frequent inter-agency dialogues, i.e. bilateral meetings technical committee meetings/forums, etc.
	4. Threats – <i>Clearly defined risks for managing statistical operations in the NSS.</i>	<ul style="list-style-type: none"> • NSO & many statistical agencies will not produce required statistics if appropriate resources as well as coordination mechanisms are not in place. • Human resources development and funds in the statistical areas are diminishing in most agencies. There is no certainty that Government will invest in statistics production.

The results from the SWOT Analysis, the economic and social sector Consultant’s interviews with the key NSS agencies and divisions in NSO, findings from the User-Producer Forum and other reports are summarized below.

Data needs and challenges

The information gathered in the SWOT analysis shows that the NSS has strengths in the legal framework. However, there is still a need to strengthen the Statistical Services Act given the lack of an enabling statistical coordination mechanism. Some responding

²¹ PNG National Statistical System Assessment Report, Department of National Planning & Monitoring, 2014

agencies noted that it would be important to restructure the NSO to make it more responsive to data user demands, especially requirements for monitoring and evaluation of Government's development indicators.

The NSS has been weakened over the years by the lack of statistical capacity and inadequate number of skilled manpower (Human resource). There is a need for up-skilling personnel with up-to-date techniques in data collection, analysis and dissemination of statistical data. Data gaps will further widen in the NSS unless major reforms are carried out. There is generally a need for statisticians in all agencies in the NSS.

Some statistics produced by the NSS is not easily accessible, due to stringent legal prohibitions and a lack of statistical coordination mechanism, as well as a poor relationship between users and producers. There were challenges in producing data on time because of factors such as inaccessibility of data from other agencies.

On quality of data, there is a need to adhere to internationally accepted methodologies and procedures to produce quality data (methodological soundness) and the use of updated versions of techniques and technology. Quality of data is also affected by non-collection of data (data source) for production of some statistics (for example, lack of information about nationwide business activities which affects calculation of national accounts and GDP).

On challenges affecting the dissemination and access to statistical information, there is a lack of free flow of information and data between agencies. Accessibility is difficult as in many instances there are confidentiality bars, regulations and costs. Dissemination and sharing of statistical information (produced by NSO or the other NSS agencies) need to improve. There is also a lack of coordination mechanism, poor user – producer relationship.

There is a need for a centralized database (such as the “PNGInfo”) for data and statistics from key Government and private sectors. Compiling of statistical information into a portal of information to be used by the public is weak. There is also a need for a functioning centralized information management system.

Growing needs for statistics

Statistics have become a basic tool for governance worldwide and plays a major role in “evidence-based policy making”. Many organizations and GoPNG departments depend on their own statistics to formulate their policies and strategic plans.

The standards for national accounts, required for macro-economic policy making, have become more elaborate since a new set of international standards were released in 1993 (System of National Accounts - SNA93) and revised again in 2008 (SNA08). The standards require comprehensive collection of data for institutional accounts, capitalization of many items, more detailed capital accounts, more attention to the coverage of illegal and unreported activities, among others.

Statistics plays a major and multifaceted role in the monitoring of the SDGs, which many countries including PNG have adopted as a central framework for evaluating progress towards human development and poverty alleviation. Accordingly, the focus on SDGs has tended to increase the demand for a broad range of reliable statistics. For example, the indicators for human development, poverty and vulnerability are areas which require a broad range of data. This involves statistics on income, poverty, the health of mothers and children, educational attainment for the disadvantaged and the state of the environment.

Gaps in the national accounts

National Accounts data are essential for monitoring economic growth, in particular for monitoring achievement of the MTDP and PNGDSP targets for accelerating annual economic growth. The current problems of the SNA stem mainly from an inadequate number of staff and the need to upgrade skills on new international standards for compiling GDP. A variety of source data are required for preparing National Accounts. The CBA has not been conducted by NSO since 2003 and only commenced in 2014. BPNG conducted its own Business Liaison Survey to gather data for estimates of GDP.

World Banks appraisal of the PNG NSS's statistical capacity

The PARIS21 Consultant's Report (Albert, 2014)²² makes mention of the PNG NSS's ranking according to the World Bank's appraisals of statistical capacities of countries around the world based on a set of criteria consistent with international recommendations such as methodological soundness in compiling statistics, data source, timeliness and periodicity. PNG's standing on statistical capacity within East Asia and 11 Pacific Island countries is given in Table 3.4 below, showing aggregate scores out of 100.

Table 3.4: Overall scores of Pacific countries

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013
Fiji	53	54	52	53	57	53	70	70	71
Kiribati	32	37	37	36	33	37	38	38	36
Marshall Islands	32	32	37	41	41	41	47	53	53
Federated States of Micronesia	30	31	31	34	34	28	28	38	38
Palau	37	38	34	34	34	34	30	33	33
Papua New Guinea	49	52	48	44	49	41	38	38	38
Samoa	56	52	50	51	53	49	49	51	53
Solomon Islands	31	31	31	30	33	40	42	42	50
Tonga	53	52	57	58	59	59	59	59	47
Tuvalu									30
Vanuatu	44	51	49	59	57	42	53	48	43
East Asia & Pacific	72	73	73	72	72	71	71	69	70

Source: Adapted from World Bank. 2013. Bulletin Board on Statistical Capacity (BBSC).

²² Albert. J.R. Mission Report regarding progress on formulation of PNG NSDS & Ways Forward. Paris21 Consultant. Port Moresby. 2014

PNG has had low scores since 2007 which reflects the status of statistics production in that period. Albert's (2014) main recommendation was that the priority should be given to improve the data collection framework to strengthen statistical methodology, data sources, periodicity and timeliness. Initial focus on PNGSDS should be generation of data collection framework and to list activities required for generating core statistics (indicators) for monitoring and evaluation of PNG's national plans.

Reports on monitoring MDG/SDG indicators

Several reports highlight the critical data gaps and data discrepancies faced by the relevant Government departments in monitoring the MDG indicators. The DNPM and UNDP's Report on Data Availability, Completeness and Accuracy for Monitoring (DACAM) MDGs and Human Development in PNG (DNPM, 2010)²³ and the 2010 Comprehensive Report on MDGs²⁴ noted that the biggest obstacle to effective monitoring, evaluation and reporting of the MDG indicators was the lack of relevant data for the indicators. These reports indicate that "that PNGs database on human development and MDG monitoring remains incomplete and deficient". Many of the global as well as national indicators could not be measured because of lack of data. The Assessment of Development Results in PNG (ADR) (2010)²⁵ reported that lack of accurate baseline data for the identified priorities in the MTDS constrained informed budgetary allocations. The ADR makes the point that "there was a critical need for comprehensive national statistics and that the nationally tailored MDGs remain estimates in the MTDP because of a lack of reliable baseline data. ... There was a need to improve data collection capacities".

The experiences from the lack of reliable data for monitoring and tracking on MDGs has warranted the DNPM for early localization of the SDGs with gathering of baseline data in 2017 when the MDGs elapsed in 2015. However, lack of provision of reliable baseline data for the localized SDGs remains unsolved impeding target settings for evidence-based planning and reporting. Many statistical agencies are confronted with weak statistical management with low statistical skills to provide the right kind of statistical information needed.

3.2.3 Problem and Objective Trees

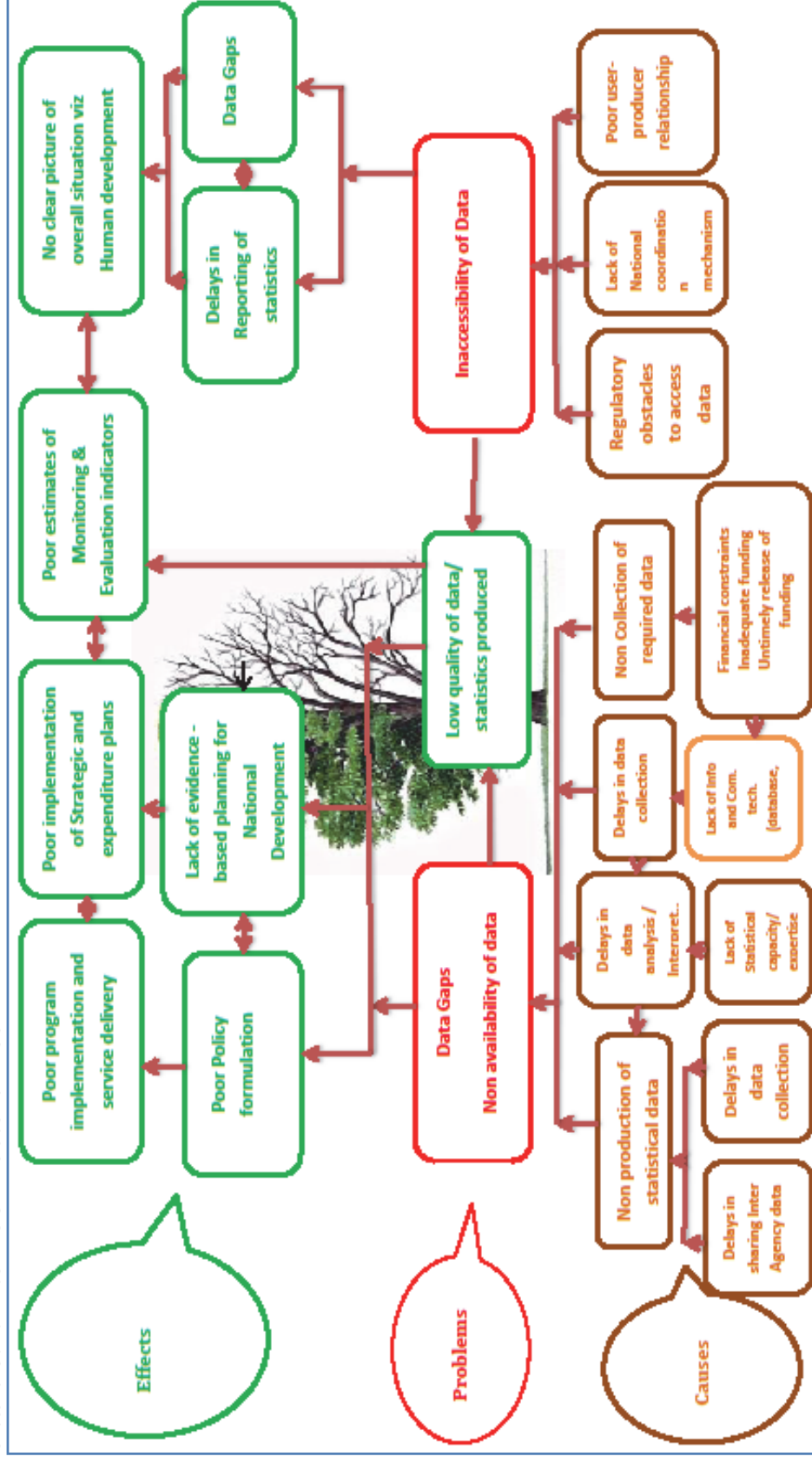
The problem tree below summarizes the identified problems, causes and the effects of the problems in the NSS.

²³ Department of National Planning & Monitoring (DNPM) & United Nations Development Program (UNDP). Report on Data Availability, Completeness and Accuracy for Monitoring MDGs and Human Development in PNG, 2010.

²⁴GoPNG. 2010. Second National Progressive Report on MDGs for PNG. P.236

²⁵UNDP. 2010 Assessment of Development results in PNG. Evaluation of UNDP contribution. P.29

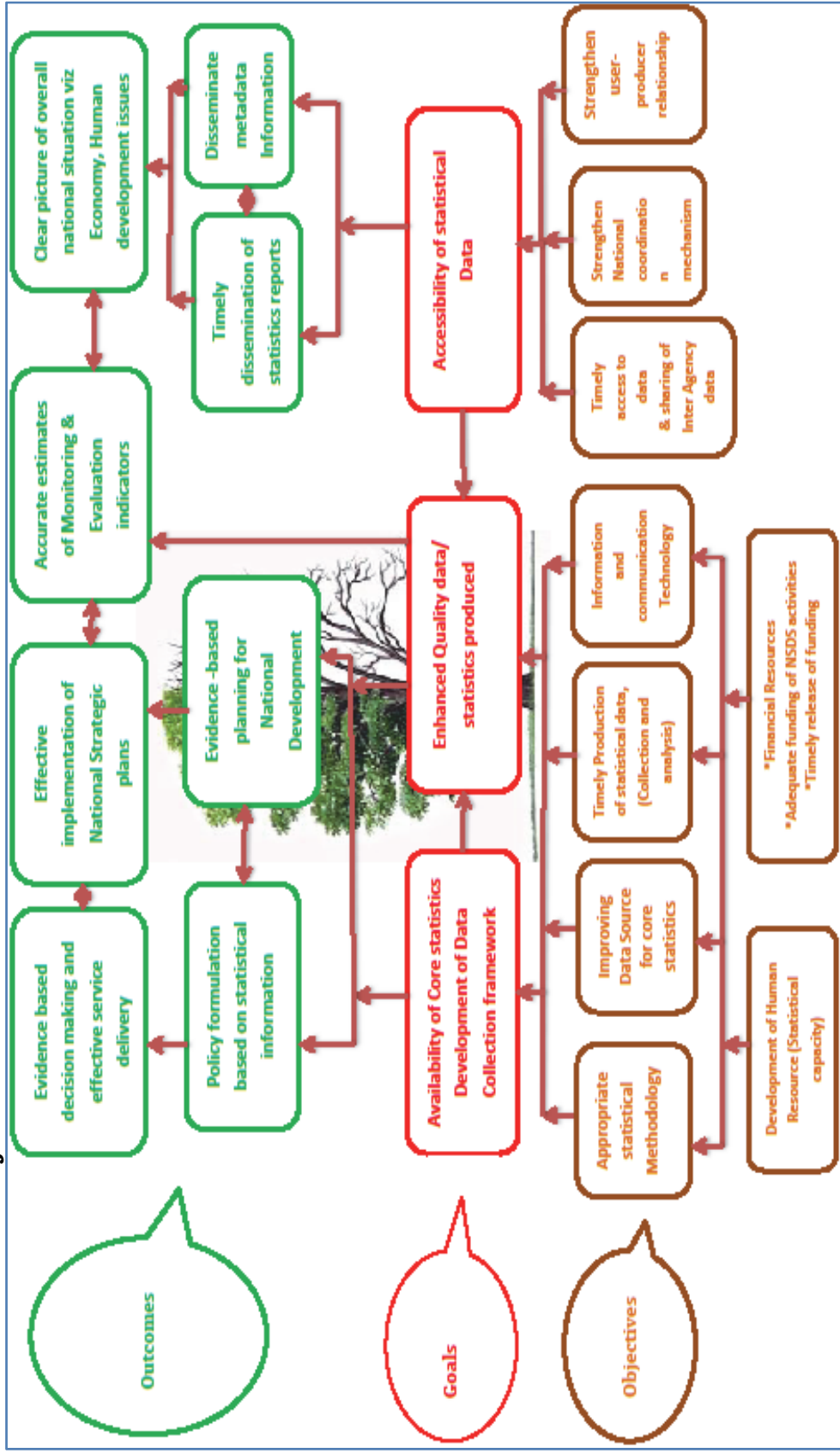
Chart 3.1: The NSS Problem Tree



The identified problems are: data gaps or non-availability of data, production of low quality data and inaccessibility of data. The causes of data gaps and low quality of data were identified as non-production of data, non-collection of data, delays in data collection and data analysis, delays or non-sharing of inter-agency data, lack of statistical capacity/expertise, financial constraints, untimely release of funding and lack of ICT for data processing, dissemination and storage. The causes of inaccessibility of data were identified as regulatory obstacles to accessing data, lack of national coordination mechanism and poor user-producer relationship.

The effects of the challenges are poor policy formulation, lack of evidence-based planning for national development, poor service delivery and implementation of strategic and expenditure plans, and poor estimates of monitoring and evaluation of national indicators. The inaccessibility of data leads to data gaps and delays in reporting statistics. This is illustrated in the Objectives Tree below and presents possible solutions to the problems identified above.

Chart 3.2: The NSS Objective Tree



The overall goals of the PNGSDS are the availability of core statistics, the development of a data collection framework, the production of quality statistical data and easy access to statistical data. The objectives of the Strategy are to use appropriate methodology in the production of data, improve data source for core statistics, timely production of statistical data, use ICT to improve the production, dissemination and storage of data, development of human resource (statistical capacity), adequate and timely release of funding for PNGSDS activities. The objectives to improve dissemination and access to data are timely access and sharing of inter-agency data, to strengthen national coordination mechanism and strengthen user-producer relationships.

The above actions are intended to result in the following outcomes: evidence-based planning for national development, policy formulation based on statistical information, evidence-based decision-making, effective implementation of national strategic plans, timely dissemination of statistical reports and accurate measure of national indicators. The following strategies would therefore strengthen the NSS:

- Improve quality of data production (methodological soundness - use of international best practice. For instance, IMF Data Quality Assessment Framework);
- Improve data source (data collection);
- Improve data dissemination, access and utilization;
- Strengthen coordination between the NSS agencies, producers and users; and
- Improve funding situation – adequate funding and timely release of funding

PART TWO

STRATEGIC PLAN FOR THE DEVELOPMENT OF STATISTICS

SECTION 4: VISION, MISSION AND CORE VALUES

4.1 Introduction

The vision, mission and core values stated below are intended to move the NSS forward from the current state described in Part One (especially in Section 3).

4.2 Vision

The vision of the NSS is:

A National Statistical System that conforms to international standards and best practices in the timely production of official statistics for sustainable socio-economic development and evidence-based planning and governance.

4.3 Mission

The mission of the NSS is:

To collect, process, analyze, coordinate and disseminate high quality official statistics and other statistical information within a well-structured National Statistical System which promotes evidence-based policy formulation and decision-making aligned with the country's development plans.

4.4 Core Values

The performance of the statistical agencies in the NSS will be guided by the following core values:

- Conduct of business in conformity to the mandated responsibilities, set standards and good statistical practices;
- Production of quality core statistical data to monitor the development progress of the country and support its international commitments;
- Develop and increase skilled human resources capacity;
- Network and information sharing; and
- Effective and efficient management and coordination of statistics.

SECTION 5: STRATEGIC THEMES AND OBJECTIVES

5.1 Introduction

The strategic themes were chosen based on the assessment and the identified needs of the NSS and the NSO. The strategic themes, objectives and activities (and Section 6) are devised to drive the vision and mission of the PNGSDS. The overall goal is to improve the NSS's core function, which is primarily to provide the required core statistics conforming to international standards and practices. It also responds to the needs of its stakeholders and users within a well-coordinated, managed and structured statistical system. Not all themes are applicable for all statistical agencies.

5.2 Strategic Theme 1: Strengthening the coordination of the NSS

Strategic theme 1 aims to strengthen the NSS by providing a mechanism for coordinating the implementation of the PNGSDS. The successful implementation of the Strategy will require the setting up of a number of committees such as the Steering Committee, Statistical Coordination Unit and the sector Statistics Working Groups. The coordination structure provides an implementation mechanism for partnership between suppliers, producers and users of official statistics. The United Nations Fundamental Principles of Official Statistics (Principles 8 – 10 in Annex 1) which advocate for the importance of coordination should be used as guiding principle for the coordination framework. The NSO will play a pivotal role in the implementation of the Strategy and this role needs to be clearly defined. It will require a review of the Statistical Services Act 1980, with the intention of updating and strengthening the legislation and effective flow of statistical data.

Theme 1 Objectives

The NSS agencies:

- 1) To establish an effective National Statistical System Coordination Structure (NSSCS);
- 2) To review the Statistical Services Act 1980 so that statistical activities and operations including coordination, arrangements for data collection, compilation, dissemination and interpretation are underpinned by a stronger statistical legislation;

- 3) To enable NSO to be the lead agency in the implementation of the NSSCS;
- 4) To develop and promote strategic partnerships for improving the NSS;
- 5) To harmonize the statistical coordination mechanisms for improving quality, relevance, consistency, timeliness and accessibility of key official statistics at the national, sectoral and sub-national levels; and
- 6) To use the PNG Standard Industrial Classifications (PNGSIC), international classifications, concepts and methods which promote consistency and efficiency of statistical systems at all official levels.

5.3 Strategic Theme 2: Developing human resource capacity of the NSS

Strategic theme 2 aims to develop human resource capacity in statistics. The planned programs and activities in the PNGSDS require human resources to drive the initiatives forward. These changes will require the “existing staff” to be regrouped and up-skilled to adapt to the requirements of the changes whilst new recruits will be appropriately skilled. The existing staff and new recruits will join forces to implement the strategic plan in line with the national goals. The NSS will need to adapt to changes and most importantly to manage and implement the Strategy effectively and efficiently to achieve the desired goals which are aligned to both national and international best practices. It advocates for training for national capacity building to be an integral part of any technical assistance provided to the NSS.

Theme 2 Objectives

The NSO to take the lead role and the NSS agencies as applicable:

- 1) To develop a Human Resource Development Plan;
- 2) To develop a Training Needs Analysis and conduct the Technical Needs Analysis Framework;
- 3) To develop Basic Statistical Training Standards Manuals;
- 4) To develop and chart a Human Resource Succession Plan;
- 5) To develop a Change Management Plan; and
- 6) To develop a recruitment and retention plan.

5.4 Strategic Theme 3: Strengthening the quality of the NSS products

The main goal of this strategic theme is production of quality data. Producing quality data (the product) according to internationally recognized practices is a priority for the NSS. It is therefore important to establish and maintain internationally accepted data production practices. The IMF Data Quality Assessment Framework (DQAF) prescribes the following dimensions specific to data production: *Methodological soundness, Accuracy and Reliability (of source data) and Serviceability (periodicity and timeliness)*. The production of data should also adhere to the UN Fundamental Principles of Official Statistics (Principles 2 – 6 in Annex 1).

Theme 3 Objectives

- 1) To produce quality data by adopting internationally accepted methodologies for compiling statistics;
- 2) To produce quality data by improving data source, periodicity and timeliness by conducting census and surveys and other prescribed data collection activities according to a calendar;
- 3) To generate quality statistics (socio-economic sector including environmental statistics) which addresses the priority information needs of the Government and other stakeholders;
- 4) To improve data analysis, interpretation, relevance and/or appropriateness of data;
- 5) To increase technology utilization (ICT and information management systems) for effective data collection and data sharing, processing, analysis, production of official statistics, storage and dissemination of statistical data; and
- 6) To produce statistics according to user needs.

5.5 Strategic Theme 4: Dissemination, accessibility and utilization of statistical information

Dissemination, accessibility and utilization of data have been identified as key components of the Strategy for the NSS. The dissemination of information will be guided by the IMF DQAF on *accessibility* which states that *data and meta-data are easily available and assistance to users is adequate*. This framework prescribes the following elements:

- a) Statistics are presented in a clear and understandable manner, forms of dissemination are adequate and statistics are made available on an impartial basis;
- b) Up-to-date and pertinent metadata and microdata are made available; and
- c) Prompt and knowledgeable support service is available.

Together with DQAF, IMF also developed the General Data Dissemination System (GDDS). It is the intention that PNG should be a GDDS subscribing country. The GDDS require the following elements:

- **Advance Release Calendar** - to inform what and when statistics are to be released;
- **Metadata** – to provide information about the data such as methodology, coverage, periodicity, timeliness; and
- **National Summary Data Page** – to provide a summary update of key economic and social indicators in a country.

Theme 4 Objectives

- 1) To develop a National Dissemination and User Access Policy which is aligned to the international standards (GDDS & SDDS) on information dissemination;
- 2) To enhance the capacity to disseminate and communicate official statistical information in a timely manner;
- 3) To use appropriate ICT to communicate information, provide access to data, storage and archiving of information;
- 4) To enhance User-Producer dialogue by establishing a permanent dialogue mechanism between producers and users of statistics and to improve access of data between producers and users;
- 5) To develop and coordinate a centralized database; and
- 6) To facilitate for the use of statistical information for policy and development planning.

5.6 Strategic Theme 5: Advocacy for implementing and funding the PNGSDS

A robust advocacy communication plan for the implementation of the PNGSDS should be developed. Advocacy is an integral part of the planning and development of the Strategy. Therefore, every opportunity should be taken to show how the implementation of the Strategy will contribute to the development of statistics in the country and therefore contribute to development itself.

The advocacy and communication plan is fully costed outlining a budget with recurrent and development components. This budget will be met from two sources, namely the Government of PNG and the Development Partners. It is expected that the Development Partners will assist the Government with grants and loans to invest in statistical development based on the Strategy. It is important for the Government of PNG to fund the implementation of the Strategy in order to address the statistical gaps. This would include the monitoring of the Agenda 2030 on Sustainable Development, Samoa Pathway and any regional development agenda including the national development priorities.

Theme 5 Objectives

- 1) To develop a communication plan for the implementation of the Strategy;
- 2) To advocate for the implementation of the Strategy to all the NSS stakeholders;
- 3) To identify and establish possible core funding sources and to leverage funding sources for the Strategy;
- 4) To prepare budget submissions to the Government of PNG for funding the Strategy;
- 5) To strengthen the management of the financial resources for the implementation of the strategic plan in compliance with the Public Finance Management Act; and
- 6) To develop processes and, or procedures aligned to a Calendar of Statistical Activities to facilitate the timely release of available funds for advanced preparations.

SECTION 6: THE PNGSDS ACTION PLAN

6.1 Introduction

The proposed activities of the implementation are detailed in *Volume 2: PNGSDS Implementation Plan, 2018 - 2027*. It is briefly explained as a concept framework of the Strategy specified in the strategic themes and strategic objectives. The key activities have been placed under responsible implementing sector categories. While most of the planned activities are in Volume 2 which will mostly be implemented by NSO, other activities will involve other agencies in the NSS.

6.2 Strategic themes grouped into programs, sub-programs and activities

The strategic themes have been grouped into programs, sub-programs and activities under the responsible implementing categories. The categories are:

a) Executive and organizational management

- Establishing the Coordination Framework;
- Development of Human Resource capacity;
- Advocacy for implementing and funding the PNGSDS;
- Review of the Statistical Services Act, 1980;
- Undertake rigorous reforms of the NSO; and
- Statistical training for capacity building.

b) Strengthening the quality of the NSS products

- Production of core statistics on economy, society and environment and other relevant statistics;
- Improving various data sources (for economic and financial, social and demographic, environment and related sectors) such as surveys, census and administrative registers; and
- Technical Assistance.

c) Disseminating, accessing and utilizing statistical information

- Dissemination, accessing and utilizing statistical information;
- Information, Communication and Technology (ICT);
- Strengthen statistical information at regional and provincial levels; and
- Investment in infrastructure and technology.

The above are discussed in detail in the next section.

6.3 Executive and organizational management

The NSO is the lead agency in implementing the PNGSDS. However, as per the NEC Decision No:162/2014, DoT and DNPM will support NSO, in establishing the National

Statistical System Coordination Structure, in particular the Statistical Coordination Unit (SCU) and the PNGSDS Steering Committee.

6.3.1 Establishing the NSS Coordination Structure

A NSS Coordination Structure (NSSCS) which provides a mechanism for coordinating the implementation of the PNGSDS will be established. The NSSCS will require the setting up of a number of committees such as the Steering Committee, Statistical Coordination Unit and the four sector thematic Statistics Working Groups (see details in Section 3 of PNGSDS Implementation Plan Volume 2). The following activities outlined below will take place to establish the coordination structure.

Table 6.1: Establishing the NSSCS

1.1 Establishing the NSS Coordination Structure			
	Main Activities	Performance Indicators	Agencies Responsible
1.1.1	Establish the Statistical Coordination Unit (SCU) and recruit staff	Establish a functioning SCU at DNPM by 2018. Recruitment of staff. Quarterly Reports	DoT/DNPM/NSO
1.1.2	Establish the PNGSDS Steering Committee	The PNGSDS Steering Committee established by 2018 with quarterly meetings. TOR checklist. Meeting minutes	DoT/DNPM/NSO
1.1.3	Establish sector Statistics Working Groups (SWGs) for the Economic and Financial cluster, Social and Demographic cluster (including Governance sector)	Functioning sector SWGs with members established by 2018 with quarterly meetings. TOR checklist. Meeting minutes	DoT/DNPM/NSO
1.1.4	Establish the Regional Statistical Offices	Establishment of Regional Statistical Offices in the four regions by 2020	NSO
1.1.5	Independent Consultants to conduct periodic reviews of PNGSDS at the end of 2020, 2023 & 2027	Consultants' Report of mid-term review of PNGSDS in 2020, 2023, 2027	NSO/DNPM/DoT
1.1.6	Review Statistical Services Act 1980 to facilitate and enhance the compliance of all the NSS stakeholders, companies and individuals in providing statistical information and strengthen the mandated role of NSO	Revised Statistical Services Act by 2018	NSO/CLRC/State Sol/First Legislative Council
1.1.7	The use by the NSS agencies of PNGSIC, international classifications, concepts and methods which promote consistency and efficiency of statistical systems at all official levels	Use and production of PNGSIC by all the NSS agencies by 2018	NSO/NSS

Note that the numbers (e.g. 1.1 and 1.1.1) correspond to the numbers in the NSS-wide program, activities and projects 2018 - 2027 Matrix in Annex 2 where detailed activities and costs are provided.

6.3.2 Development of human resource capacity

The main activities below will guide the development of the human resource capacity.

Table 6.2: Human resource development

1.2	Development of human resource capacity		
	Main Activities	Performance Indicators	Agencies Responsible
1.2.1	Develop Human Resource Development Plan for NSO/NSS based on the needs of PNGSDS (to include HR succession plan and change management plan)	Ten-year Human Resource Development Plan by 2018	NSS/NSO
1.2.2	NSO to take stock of its current HR capacity and staff needed for restructure	Assessment Report of NSO HR capacity and staff needs conducted by 2018	NSS/NSO
1.2.3	All the NSS agencies to recruit statistical officers	Statisticians and relevant staff recruited by the NSS agencies by 2018	NSS/NSO
1.2.4	Performance based appraisals against agreed staff Key Performance Indicators (KPI's)	Performance based appraisal system against KPI for NSO by 2018	NSO
1.2.5	Training to develop management capacity - quality leadership, financial management	NSS/NSO management trained on quality leadership and financial management by 2018	NSS/NSO/ Development Partners

6.3.3 Advocacy for implementation and funding the Strategy

The activities listed below provide some guidance for advocacy for implementing and securing funding for the planned programs of the PNGSDS.

Table 6.3: Advocacy for implementation and funding the Strategy

1.3	Advocacy for implementation and funding the Strategy		
	Main Activities	Performance Indicators	Agencies Responsible
1.3.1	Develop a communication plan for the implementation of the PNGSDS	Communication plan developed by end of second quarter 2018	NSO
1.3.2	Advocate for implementation of PNGSDS to all the NSS stakeholders	Advocacy booklet produced by 2018. Summarized PNGSDS to be published by 2018	NSO/NSS
1.3.3	Advocate for adequate and efficient GoPNG funding of implementation of PNGSDS	GoPNG provision of adequate funding of PNGSDS annual activities	DNPM/NSO/ Steering Committee
1.3.4	Seek alternative sources of funding for the implementation of the PNGSDS	Development Partners fund components of annually planned activities of PNGSDS	DNPM/NSO/ Steering Committee/ Development Partners
1.3.5	Fund training and up-skilling of statisticians on conducting surveys and censuses as well as in analysis, report writing, generating outputs and publishing information from survey and census data, and for evolving data needs	GoPNG and Development Partners fund identified training for up-skilling statisticians in annual activities	DNPM/NSO/ Development Partners

1.3 Advocacy for implementation and funding the Strategy			
	Main Activities	Performance Indicators	Agencies Responsible
1.3.6	Fund technical assistance for data production (data analysis, interpretation, reporting) and dissemination using IMF DQAF	Statisticians trained on data production and dissemination using IMF DQAF. End of assignment TA Report	DNPM/NSO/ Development Partners
1.3.7	Provision of adequate funds to establish the National Statistical System Coordination Structure	GoPNG Funding to establish NSSCS by 2018	DNPM/NSO
1.3.8	Actively plan and source funding before scheduled date for conduct of population census and major surveys	GoPNG & Development Partners funding of preparation of population census and survey before date of conduct of population census and major surveys	DoT/DNPM/ NSO/NSS/ Development Partners
1.3.9	Timely release of funds for censuses & surveys	Timely conduct of census & surveys according to statistical calendar	NSO/DoT
1.3.10	Management of funds and procurement guidelines aligned with GoPNG Public Finance Management Act and Development Partners requirements	Annual Financial Reports/ Annual Audit Reports	NSO/NSS
1.3.11	Advocate for the establishment of a Statistical Development Fund ("Basket Fund" in a trust account) to be administered by NSO, DNPM or DoT	A trust account with control mechanism established by 2018	DoT/DNPM/ NSO/ Development Partners

6.4 Strengthening the quality of the NSS products

Activities in this sub-section aim to produce quality economic and social statistics to meet the user needs of the Government and the stakeholders. The core statistics and indicators that will be produced for the period of this Strategy are in Annex 2 (PNGSDS 2018 - 2027 Core statistics and indicators) that can also be used to report on the SDGs. The activities listed in the tables below are the urgently required socio-economic statistics. The IMF Data Quality Assessment Framework dimensions specific to quality data production practices such as *methodological soundness*, *accuracy and reliability (of source data)*, *serviceability (periodicity and timeliness)* and UN Fundamental Principles of Official Statistics (Principles 2 – 6) should be adhered to.

6.4.1 Production of core economic and financial statistics

Table 6.4: Production of economics and financial statistics

2.1 Economics and financial statistics			
	Main Activities	Performance Indicators	Agencies Responsible
2.1.1	Timely compilation and release of National Accounts (GDP - actuals)	Publication of Annual National Accounts Reports	NSO
2.1.2	Quarterly and annual inflation rates (Consumer Price Index - CPI)	Publication of Quarterly and Annual CPI Reports	NSO
2.1.3	Employment & unemployment statistics	Publication of Annual Report on statistics on employment and unemployment	Department of Labour & Industrial Relations/NSO
2.1.4	Trade statistics on import and export volume & revenue	Publication of Quarterly and Annual Report on import and export volume, revenue (trade statistics)	PNG Customs/ BPNG/ Department of Commerce/ Trade & Industry
2.1.5	Trade statistics on agricultural and livestock products (meat, coffee, cocoa, oil palm, copra)	Publication of Annual Reports on agricultural and livestock statistics	DAL/DCIT/ PNG Customs/ BPNG
2.1.6	Fisheries exports & income statistics (Tuna, prawn)	Publication of Annual Reports on fisheries statistics	National Fisheries Authority/ Coastal Fisheries/PNG Customs
2.1.7	Timber statistics (value of total exports)	Publication of Annual Reports on Timber statistics	Department of Forests/ National Forest Authority
2.1.8	Petroleum statistics (Value of crude oil production and exports, LNG revenue)	Publication of Annual Reports on Petroleum statistics	Department of Petroleum & Energy/MRDC
2.1.9	Total import and export statistics (volume, revenue)	Publication of Annual import and export statistics	PNG Customs/ BPNG/NSO
2.1.10	Satellite Accounts Statistics (environment, tourism, climate change)	Publication of Annual Reports on Satellite Accounts statistics	Department of Environment & Conservation/ TPA/OCC

6.4.2 Production of social and demographic statistics

The following social and demographic statistics will be produced by responsible agencies. A full list and details of various sources of data are provided in Annex 2: PNGSDS 2018 - 2027 Core statistics and indicators.

Table 6.5: Production of social and demographic statistics

2.2 Social and demographic statistics			
	Main Activities	Performance Indicators	Agencies Responsible
Population statistics			
2.2.1	Total Population (Disaggregated by regions, province, district, LLGs, gender, age groups, urban/rural & nationalities), Population growth rate, Disability statistics	Publication of these population statistics every 5 years in census Report	NSO
2.2.2	Internal migration and urbanization (rural to urban)	Publication of internal migration and urbanization statistics annually by Office of Urbanization and every five years by NSO	Office of Urbanization/ Department for Community Development/ NSO
2.2.3	Human Development Index (HDI), Human Poverty Index (HPI), Gender Development Index (GDI)	NPHC Reports & HIES Reports	NSO
2.2.4	Migration Statistics	Quarterly migration statistics produced	NSO
Education statistics			
2.2.5	Net admission rate, Net enrollment rate, Gross enrollment rate, Sex enrollment ratios (grade aggregated, age aggregated)	Publication of these core education statistics in DoE Annual Reports	DoE
2.2.6	Completion rate (Grade 8, 10, 12), Retention rate, Average class size, Teacher to pupil ratios, Literacy rates - Youth & adult	Publication of these core education statistics in DoE Annual Reports	DoE/NSO
Health statistics			
2.2.7	Infant mortality rates (up to 12 months), Children under five mortality rate. Maternal mortality rates, fertility rate, crude birth rate, crude death rate, morbidity rate (e.g. prevalence of TB, pneumonia, etc.)	Publication of these core health statistics in Annual DoH Reports	DoH/NSO
2.2.8	Supervised deliveries, Ante-natal care, immunization coverage. Access to health facilities. % of PLWHIV on ART	Publication of these core health statistics in Annual DoH Reports	DoH/NSO
Law & Justice sector statistics			
2.2.9	Police statistics (crime) & administrative data	Publication of police statistics in RPNGC Annual Reports	Department of Police
2.2.10	Correctional Institutional Services statistics & administrative data	Publication of CIS statistics in CIS Annual Reports	CIS
2.2.11	Law & Justice Statistics & administrative data from Department of Justice & Attorney General	Publication of Law & Justice statistics in DJAG Annual Reports	DJAG

6.4.3 Production of other relevant statistics

The other relevant statistics will also be produced as listed in the table below.

Table 6.6: Production of other relevant statistics

2.3 Production of other relevant statistics			
	Main Activities	Performance Indicators	Agencies Responsible
Higher education statistics			
2.3.1	Enrollment statistics at Tertiary institutions	Publication of DHERST Annual Report on enrollment statistics at Tertiary/Technical institutions	DHERST
2.3.2	Statistics on Graduates (tertiary education)	Publication of DHERST Annual Report of statistics on graduates	DHERST/NSO
2.3.3	Statistics on skilled workforce	Publication of Annual Report of statistics on skilled workforce	Department of Labour and Industrial Relations (DLIR)/NSO
Transport statistics			
2.3.4	Percentage of national roads in good condition	Publication of Annual Report of statistics on percentage of national roads in good condition	Department of Transport/ Department of Work/ National Road Authority
2.3.5	Statistics on Nationally declared ports. Provincial & other ports. Rural jetties	Publication of Annual Report of statistics on national, provincial ports and jetties	PNG Ports
2.3.6	International Airports, National airports, Provincial & other airports, Rural Airstrips	Publication of Annual Report of statistics on international, national, provincial airports and airstrips	National Airports Corporation
Utilities statistics			
2.3.7	Proportion of population having access to safe water (piped). Improved sanitation	Publication of proportion of population having access to safe water and improved sanitation in Annual Reports from PNG Water & Eda Ranu.	PNG Water/Eda Ranu
2.3.8	Proportion of population having access to Postal services	Publication of proportion of population having access to postal services in post Annual Reports	Post PNG/ NSO
2.3.9	Households with access to electricity	Publication of households with access to electricity.	PNG Power/ NSO
2.3.10	Statistics on Land use & access	Publication of Annual Report of statistics on land use and access	DLPP/Remote Sensing Center (UPNG)

6.4.4 Improving economic and financial statistics data sources

The main activities in this sub-section aim to improve data source in terms of timeliness, periodicity, methodology, scope and coverage for producing economic statistics to meet producer-user requirements. Data quality activities are discussed in sub-section 6.5.

The main economic and financial data sources will include:

Table 6.7: Improving economic & financial statistics data sources

2.4 Improving economics and financial statistics			
	Main Activities	Performance Indicators	Agencies Responsible
2.4.1	Consumer Price Survey	Production of CPI on a quarterly and annual basis	NSO
2.4.2	Access of trade data from PNG Customs	Access to ASYCUDA++ by 2016 by NSO, BPNG and other relevant NSS agencies. Trade statistics (Balance of Payment) is produced annually from 2016	PNG Customs/ NSO/BPNG/ NSS
2.4.3	Compilation and regular update of a register of business activities in all the provinces.	Business register for all provinces by 2016. Up-dated annually. Ongoing.	NSO/IRC/IPA
2.4.4	Census of Business Activities	Preparation for CBA in 2018 & 2019. Conduct of CBA in 2018 & 2020. Reports published in 2018 & 2021	NSO/IRC/IPA
2.4.5	National Agriculture Survey	Preparation in 2016. Conduct of first NAS in 2018. Report published in 2018	DAL/NSO
2.4.6	Household Income and Expenditure Survey	Preparation in 2016. Conduct of HIES in 2018. Report published in 2018	NSO/DoT/ BPNG
2.4.7	Collection of satellite accounts statistics - fisheries, forestry, crude oil, LNG, tourism, environment, climate change	Compilation of satellite accounts statistics by 2018	NSO/NSS

6.4.5 Improving social and demographic statistics data source

The main social and demographic data sources will include the surveys and censuses as listed in the table below.

Table 6.8: Improving social & demographic statistics data source

2.5 Improving social and demographic statistics data source			
	Main Activities	Performance Indicators	Agencies Responsible
2.5.1	Analysis and production of 2011 census products including: monographs, life tables, life expectancy, fertility and mortality, etc.	Publishing of 2011 census products including: monographs, life tables, life expectancy, fertility and mortality, etc. by 2016 & 2018	NSO

2.5	Improving social and demographic statistics data source		
	Main Activities	Performance Indicators	Agencies Responsible
2.5.2	Demographic and Health Survey	Preparation in 2015. Conduct DHS in 2016. Report published by 2018	NSO/DoH/Development Partners
2.5.3	Labour Force Survey (LFS)	Preparation for LFS in 2018. LFS conducted in 2018. Report published in 2019	NSO/DLIR
2.5.4	National Population & Housing Census	Preparatory operations from 2018 to 2019. Conduct NPHC in 2020. Report published by 2021	NSO/NSS/Development Partners

6.4.6 Improving administrative data and statistics

The activities in this sub-section aim to improve administrative data and statistics to improve user requirements.

Table 6.9: Improving administrative data and statistics

2.6	Improving administrative data and statistics		
	Main Activities	Performance Indicators	Agencies Responsible
2.6.1	Education administrative data, annual school census	Annual schools census conducted. Annual Report by end of each year	Department of Education
2.6.2	Health administrative & surveillance data and health surveys	Annual Health surveys & National Health Information System, Annual Health Report and Surveillance Reports	DoH/National AIDS Council Secretariat
2.6.3	Police statistics & administrative data	Annual Police Report	Department of Police
2.6.4	Correctional Service statistics & administrative data	Annual CS Report	Department of Correctional Services
2.6.5	Budget revenue and expenditure records (Dept. of Treasury)	Annual Budgetary Appropriation and Public Accounts Reports	DoT
2.6.6	Statistics & administrative data from Department of Justice & Attorney General (DJAG)	Annual Report from Department of Justice & Attorney General	DJAG
2.6.7	Civil & Identity Registration	Population Information Management System (PIMS) by 2018	NSO/CRO

6.4.7 Technical assistance and statistical training for capacity building

The main activities in this sub-section are aimed at improving the production of quality data through engagement of technical assistance, statistical training for capacity building. Technical assistance and statistical training to be provided on internationally accepted data production practices. For example, adhering to IMF DQAF dimensions specific to data production such as *Methodological soundness, Accuracy and reliability*

(of source data), Serviceability (periodicity and timeliness) and UN Fundamental Principles of Official Statistics.

Table 6.10: Technical assistance and statistical training for capacity building

2.7 Technical assistance and statistical training for capacity building			
	Main Activities	Performance Indicators	Agencies Responsible
Technical assistance			
2.7.1	TA to improve data systems to estimate or derive indicators to measure economic development to required international standards in Macroeconomic sector & Financial sector	Statisticians trained on internationally accepted practices to compile GDP and related economic statistics beginning 2016. End of assignment TA Report & presentation	NSS/NSO/ Development Partners
2.7.2	TA to improve Social and Demographic sector statistics on census and survey management, data collection methodologies, data analysis and report writing	Statisticians trained on survey methodologies, data analysis, interpretation and report writing beginning 2018. End of assignment TA Report & presentation	NSO/NSS/ Development Partners
2.7.3	TA on improving administrative-based statistics in all sectors	TA to agencies on administrative based statistics. End of assignment TA Report	NSO/NSS
2.7.4	TA on ICT Systems	Use of ICT to establish statistical administration and support services. End of assignment TA Report & presentation	NSO/NSS/ Development Partners
Statistical training and capacity building			
2.7.5	Training on Statistical Operations and Procedures (SOAP)	End of training report. Manuals on PNG /NSO statistical operations and procedures by end of 2018	NSO/NSS/ Development Partners
2.7.6	Training on data systems to estimate or derive indicators to measure economic development to required international standards	Timely compilation of National Accounts, GDP etc. according to international standards. Official statistics released as per release calendar. End of training report. Quality appraisal report (2018)	NSO/NSS/ Development Partners
2.7.7	Training on IMF Data Quality Assessment Framework dimensions on data production - assurance of integrity, methodological soundness, accuracy and reliability, serviceability and accessibility	Use of IMF DQAF in the production of quality data which is disseminated in a timely manner. Official statistics released as per release calendar. End of training report. Quality appraisal report (2018)	NSO/NSS/ Development Partners
2.7.8	Training on use of Technology (ICT) to improve data collection, processing, analysis, production of official statistics, storage and dissemination of statistical data, access and archiving information	End of training report. Appraisal report on use of ICT for data collection, processing, analysis, production of official statistics, storage and dissemination of official statistics by 2019	NSO/NSS/ Development Partners
2.7.9	Training on monitoring & evaluation	End of training report. M&E periodic reports	DoT/NSO/ DNPM/

2.7	Technical assistance and statistical training for capacity building		
	Main Activities	Performance Indicators	Agencies Responsible
			Development Partners
2.7.10	Training of Trainer (TOT) for basic statistical programs and activities	End of training report. TOT report of training conducted with other divisions of NSO and the NSS agencies	NSO/NSS/ Development Partners
2.7.11	Training on project management, finance management and procurement	End of training report & presentation. Manual developed on project management, finance management and procurement	NSO/NSS/ Development Partners
2.7.12	Establish twinning arrangements with national higher education and international statistical institutions and organizations for statistical training and research	Twinning arrangements with national and international statistical institutions and organizations by 2018. Annual Report on twinning arrangements	NSO/NSS/ DHERST/ International Organizations

6.5 Dissemination, accessibility and utilization to statistical information

The activities in this section are aimed at promoting and providing improved dissemination, accessibility and utilization of official statistics. The development of regional capacity (offices) to support the production and use of official statistics also falls into this category.

6.5.1 Dissemination, accessibility and utilization

Table 6.11: Statistical information dissemination, accessibility and utilization

3.1	Dissemination, accessibility and utilization		
	Main Activities	Performance Indicators	Agencies Responsible
3.1.1	Publish and disseminate an Advance Release Calendar - to inform what and when core statistics are to be released	Copy of published advance release calendar disseminated at beginning of 2018	NSO
3.1.2	Timely release of official statistics according to the Advance Release Calendar	Copy of National Statisticians press release of official statistics according to Annual Advance Calendar	NSO/SCU
3.1.3	PNG to be a subscribing country to the IMF General Data Dissemination System and Special Data Dissemination Standards	Certificate of confirmation note of PNG as a subscribing member of IMF GDDS & SDDS	NSO/NSS
3.1.4	Statistics published to have metadata - information about the data such as methodology, coverage, periodicity, timeliness	Metadata to be included in all published statistics by 2018	NSO/NSS
3.1.5	Publish a National Summary Data Sheet – a summary up-date of key economic and social indicators in a country	Copy of National Summary Data Sheet at beginning of each year	NSO/BPNG

3.1	Dissemination, accessibility and utilization		
	Main Activities	Performance Indicators	Agencies Responsible
3.1.6	Package, print and disseminate statistical publications and press releases	Copies of statistical publications and press releases	NSO
3.1.7	Conduct an annual NSS-wide celebration of Statistics Week	Report on annual NSS-wide statistics week	NSS
3.1.8	Advocacy for use of statistics by National Departments for evidence-based policy design and decision-making as well as the general public	Report on advocacy activities with National Departments	NSS
3.1.9	Establish mechanism for regular dialogue among data producers and between data producers and users (Annual User-Producer Forum)	Annual Report on NSSCS, conduct and report of PNG statistics producer and user forum annually beginning 2018	NSS/DoT/ DNPM
3.1.10	Catalogue of statistics produced by the NSS agencies	Copy of catalogue of statistics produced annually	NSS/NSO
3.1.11	Coordination and compilation of administrative statistical information from various agencies/departments	Annual Report on compiled administrative statistical information by Statistical Coordination Unit	DoT/NSS
3.1.12	Dissemination of Statistical Information at sub-national levels	Dissemination and access of statistical information from regional offices by 2018	NSO/NSS/ Regional Offices

6.5.2 Information, Communication and Technology (ICT)

Table 6.12: Information, Communication and Technology

3.2	Information, Communication and Technology		
	Main Activities	Performance Indicators	Agencies Responsible
3.2.1	Use appropriate technology (ICT) to improve data collection, processing, analysis, production of official statistics, storage and dissemination of statistical data	NSS and NSO Annual Reports - sections on use of appropriate ICT by NSS/NSO officers for data collection, processing, analysis and production, storage and dissemination of statistical information	NSS/NSO
3.2.2	Strengthen access to data between producer agencies for compilation of core statistics	NSS and NSO Annual Reports - sections on access to data between producer agencies	NSS/NSO
3.2.3	Marketing of statistical products by establishing a one-stop statistical information center (NSO based) to respond to queries from data users and improve the NSO website to help facilitate information sharing	Statistical Information Centre and regularly up-dated website at NSO by 2018	NSO/NSS
3.2.4	Develop and Improve the NSO website as the connecting hub of the NSS linking to statistics pages of each department, provincial government and international organizations. It should also serve as news center for statistical activities	NSO website linked to the NSS agency websites by 2018	NSO/NSS

6.5.3 Strengthen statistical information at regional and provincial levels

Table 6.13: Strengthening sub-national statistics

3.3 Strengthening sub-national statistical capacity			
	Main Activities	Performance Indicators	Agencies Responsible
3.3.1	Establishment of four Regional Statistical Offices and support staff/facilities	Established regional offices with staff and facilities by 2020	NSO/DoT
3.3.2	Strengthen linkages to provinces through supporting the Provincial Data System (PDS) and the Village Book Records (VBR)	MOUs with provinces and districts	NSO/NSS/DPLLGA
3.3.3	Strengthening coordination of socio-economic data collections at provincial, district and ward levels	Collection of data by 2018	NSO/NSS/Regional & Provincial Offices

6.5.4 Investment in physical infrastructure and technology

The investment in physical infrastructure will include the construction of buildings for the regional offices and ICT equipment to provide the necessary support for the effective implementation of the plan.

Table 6.14: Physical infrastructure and technology

3.4 Investment in physical infrastructure and technology			
	Main Activities	Performance Indicators	Agencies Responsible
3.4.1	Acquisition of buildings for regional offices in the four regions to coordinate statistical activities in the provinces	Buildings to house regional offices by 2018	NSO/DoT
3.4.2	Acquisition of appropriate ICT equipment for easy access to data, storage, archiving and sharing of information at the national and provincial levels	Procurement of ICT equipment for storage of information, dissemination and archiving at national and provincial levels by 2018	NSO/DoT
3.4.3	Establish centralized data base for the NSS-wide data and its connectivity to the regional offices	A centralized data base for the NSS by 2018	NSS/NSO

DEFINITION OF TERMS

Accessibility	The ease and conditions under which statistical information can be obtained.
Administrative data	Information primarily collected for the purpose of record-keeping, which is subsequently used to produce statistics. Some examples include data from registrars, hospital morbidity data, housing assistance data and child protection data.
Agency	Denotes either a Ministry, Department, State Owned Enterprise or Division of a Department.
Dissemination	Distribution or transmission of statistical data and metadata to users. Dissemination covers all activities by statistical producers aiming at making data and metadata accessible to users. For data dissemination, various release media are possible, such as electronic format including the internet, CD-ROM, paper publications, files available to authorized users or for public use; fax response to a special request, public speeches and press releases.
National Statistical System	The ensemble of statistical organizations and units within a country that jointly collect, process and disseminate official statistics on behalf of the National Government.
Periodicity	Frequency of compilation of the data (i.e. the relevant period covered by a data observation, e.g., annual, quarterly, monthly, weekly, daily, etc.).
Prerequisites of quality	Institutional conditions for the pursuit of data quality.
Producer	Provider of statistical information that is collected through statistical instruments such as questionnaire forms, templates, scales and such other forms of collection. They can be individuals, households, business entities or public statistical agencies of the Government.
Relevance	The degree to which statistics meet current and potential users' needs. Relevance is concerned with whether the available information sheds light on the issues that are important to users. In assessing relevance, one approach is to gauge relevance directly, by polling users about the data. Indirect evidence of relevance may be found by ascertaining where there are processes in place to determine the uses of data and the views of their users or to use the data in-house for research and other analysis. Relevance refers to the processes for monitoring the relevance and practical usefulness of existing statistics in meeting users' needs and how these processes impact the development of statistical programs.

Revision policy	A policy or set of policies, aimed at ensuring the transparency of disseminated data whereby preliminary data are compiled that are later revised when more and better source data become available. Data may also be subject to ad hoc revisions as a result of the introduction of new classifications, compilation frameworks and methodologies which result in the compilation of historical data that replaces previously released data.
Stakeholders	People or organizations with an interest in the output and various other aspects of an agency.
Standards	Documented agreements containing technical specifications or other precise criteria to be used consistently as rules, guidelines, or definitions of characteristics, to ensure that materials, products, processes and services are fit for their purpose. Documents, established by consensus and approved by a recognized body, that provide, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context.
Statistical process	The complete set of sub-processes needed to support statistical production.
Statistical data	Characteristics or information that have been collected for statistical purposes or processed from no statistical sources, to contribute to the production of official statistics.
Statistical output	Results from a statistical process to be accessed by the final users. Can take the form of aggregate statistics, analysis and micro data releases and can include different forms of media (e.g. the Internet and paper reports).
Timeliness	Length of time between data availability and the event or phenomenon they describe. Timeliness refers to the speed of data availability, whether for dissemination or for further processing and it is measured with respect to the time lag between the end of the reference period and the release of data.
User	Recipient of statistical information, who transforms it into knowledge needed for decision-making or research. The ultimate client of the statistical authority, who will make the judgment as to whether the data or services are fit for purpose.
User needs	Data or metadata requirements of persons or organizations to meet a particular use or set of uses. User needs refers to the description of users and their respective needs with respect to the statistical data.

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ANNEXES

Annex 1: The UN Fundamental Principles of Official Statistics²⁶

Ten (10) Fundamental Principles of Official Statistics which are related to data production and dissemination:

Principle 1	Official statistics that meet the test of practical utility are to be compiled and made available on an impartial basis by official statistical agencies to honor citizens' entitlement to public information.
Principle 2	To retain trust in official statistics, the statistical agencies need to decide according to strictly professional considerations, including scientific principles and professional ethics, on the methods and procedures for the collection, processing, storage and presentation of statistical data.
Principle 3	To facilitate a correct interpretation of the data, the statistical agencies are to present information according to scientific standards on the sources, methods and procedures of the statistics.
Principle 4	The statistical agencies are entitled to comment on erroneous interpretation and misuse of statistics.
Principle 5	Data for statistical purposes may be drawn from all types of sources, be they statistical surveys or administrative records. Statistical agencies are to choose the source with regard to quality, timeliness, costs and the burden on respondents.
Principle 6	Individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes
Principle 7	The laws, regulations and measures under which the statistical systems operate are to be made public.
Principle 8	Coordination among statistical agencies within countries is essential to achieve consistency and efficiency in the statistical system.
Principle 9	The use by statistical agencies in each country of international concepts and methods promotes the consistency and efficiency of the statistical systems at all official levels.
Principle 10	Bilateral and multilateral cooperation in statistics contributes to the improvement of systems of official statistics in all countries.

²⁶(Source: <http://unstats.un.org/unsd/dnss/gp/FP-New-E.pdf>)

Annex 2: The PNGSDS 2018 – 2027 core statistics and indicators

Statistics/Indicators	Data Source/Activity		Agency Responsible	Periodicity
	Administrative	Survey/Census		
Economic Sector				
1 National Accounts	(Various sources as listed below)	(Various sources as listed below)	NSO	Annually
	Trade statistics		PNG Customs	Quarterly & Annually
	Finance and Banking data		BPNG	Monthly, Quarterly & Annually
	Government Finance Statistics (GFS)		Department of Treasury (DoT)/Dept. of Finance	Monthly & Annually
	Quarterly Economic Bulletin (QEB)		BPNG	Quarterly
	Tax data		Internal Revenue Commission (IRC)	Quarterly & Half yearly
		Survey of Business Activities (SBA)	NSO	Annually
		Household Income Expenditure Survey (HIES)	NSO	5 Years
2 Consumer Price Index		Household Price & Market Survey	NSO	Quarterly & Annually
3 Employment & unemployment Statistics	Labour Statistics		Dept. of Labour & Industrial Relations	Annually
		Employment Survey	BPNG	Monthly, Quarterly & Annually
		LFS	DLIR	5 years
		NPHC	NSO	10 years
		SBA	NSO	Annually
4 Retail Price Index		Retail Price Survey	BPNG	Monthly
5 Import & export revenue (Trade statistics)	Duty tax		PNG Customs	Quarterly & Annually
	Tax returns		IRC	Six monthly & Annually
6 Household income and wage rates (rural versus urban)	Minimum Wages Determination		Minimum Wages Board	5 years
		HIES	NSO	5 years
7 Agricultural statistics (productivity – e.g.	Commodity Board Annual Report		Commodity Boards	Quarterly & Annually

Statistics/Indicators		Data Source/Activity		Agency Responsible	Periodicity
		Administrative	Survey/Census		
	livestock & poultry, coffee, cocoa, oil palm, copra)		National Agriculture Survey (NAS)	DAL/NSO	10 years
			SBA	NSO	Annually
8	Fisheries exports & Income statistics (Tuna, prawn)	Trade statistics		National Fisheries Authority/PNG Customs	Quarterly Annually
			SBA	NSO	Annually
9	Timber statistics (value of total exports)	Trade statistics		National Forest Authority/PNG Customs	Quarterly Annually
			SBA	NSO	Quarterly Annually
10	Petroleum statistics (Value of crude oil production and exports, LNG revenue)	Trade statistics		Depart. of Petroleum & Energy/PNG Customs/IRC	Quarterly Annually
			SBA	NSO	Annually
11	Total Import and Export statistics (volume, revenue)	Trade statistics		PNG Customs/IRC/BPNG	Quarterly Annually
			SBA	NSO	Annually
12	Satellite accounts statistics (environment, tourism, climate change)	Statistics on Environment		Department of Environment & Conservation	Annually
		Statistics on Climate Change		OCC/National Weather Service/Meteorological Office	Annually
		Disaster Statistics		National Disaster Centre	Annually
		Tourism Statistics		TPA/Office of Immigration	Annually
		Immigration		Office of Immigration/NSO	Quarterly Annually
13	Ease of doing business		Financial Capability Survey	Institute of National Affairs (INA)	5 years
		BPNG Annual Report		BPNG	Annually
		World Bank Annual Report		World Bank	Annually
		IPA Annual Report		IPA	Annually
Social Sector					
14	Human Development Index – HDI (see below)	(Information from various sources below)	(Information from various sources below)	DNPM/NSO	Annually
	HDI -Life expectancy at Birth	National Health Information System (NHIS)		Department of Health (DoH)	Annually
			NPHC	NSO	10 years

Statistics/Indicators	Data Source/Activity		Agency Responsible	Periodicity	
	Administrative	Survey/Census			
15		DHS	NSO /DoH	10 years	
	HDI - Adult literacy ratio		National Literacy Survey	DoE (National Literacy and Awareness Secretariat - NLAS)	5 yearly
		Annual Report		NLAS	Annually
		NPHC	NSO	10 years	
	HDI -Gross enrollment ratio	Education Annual Survey		Department of Education (DoE)	Annually
			NPHC	NSO	10 years
	HDI - GNI per capita income in Purchasing Power Parity (World Bank PPP) - National Accounts (NA)	National Accounts		NSO	Annually
			NPHC	NSO	10 years
	HDI- Standard of living (income) index – NA	National Accounts		NSO	Annually
			NPHC, HIES	NSO	10 years
	Human Poverty Index (see below)		(Information from various sources below)	DNPM/NSO	Annually
	HPI- Percentage of people not expected to survive to age 40			NSO	10 years
		NPHC	NSO	10 years	
HDI- Illiteracy ratio	Annual Report	National Literacy Survey	NLAS	Annually 5 yearly	
		NPHC	NSO	10 years	
HDI- Deprivation in economic provisioning measured by: % without access to water and Health services	NHIS		DoH	Annually	
		HIES, DHS, NPHC	NSO	10 years	
HDI - Deprivation in economic provisioning measured by: % of under-weight children under age 5	NHIS		DoH	Annually	
		HIES, DHS, NPHC	NSO	10 years	
Gender					
16	Gender Development Index (GDI) – see below	(Information from various sources below)	(Information from various sources below)	DNPM/NSO	Annually
	GDI - Female & Male life expectancy at birth	NHIS		DoH	Annually
			NPHC , DHS	NSO	10 years
	GDI - Female & Male adult literacy ratio		NPHC	NSO	10 years
NLAS Annual Report		Literacy Survey	NLAS	Annually, 5 years	

Statistics/Indicators		Data Source/Activity		Agency Responsible	Periodicity
		Administrative	Survey/Census		
	GDI - Female & Male combined enrollment ratio		DoE Annual Survey	DoE	Annually
			NPHC	NSO	Annually
	GDI - Female & Male earned income share (Standard of living by sex) – National Accounts	National Accounts		NSO	Annually
17	Gender base violence	Community Development Annual Report		Department for Community Development	Annually
			National Gender Base Violence Survey	Department for Community/NSO	5 years
HIV					
18	Prevalence of HIV	Health Surveillance data, NHIS		DoH	Annually
			HIV Behavioral Surveys	National Aids Council Secretariat/NRI	3 years
			DHS	NSO	10 years
19	Percentage (%) of PLHIV on ART	Health Surveillance data, NHIS		DoH	Annually
			Behavioral Surveys	NACS/NRI	3 years
			DHS	NSO	10 years
Population					
20	Total Population (disaggregated by regions, province, district, LLGs, Sex, age groups, urban/rural & nationalities)		NPHC	NSO	10 years
21	Population growth rate		NPHC	NSO	10 years
22	Migration statistics – to PNG, Internal migration and urbanization statistics (rural to urban)	Statistics on Urbanization		Office of Urbanization	Annually
			NPHC	NSO	10 years
			National Migration Survey	NSO	5 years
		PNG Migration Annual Report		NSO	Annually
	Urban Delineation Policy Report			Department of Lands & Physical Planning	Annually
23	Disability statistics		NPHC, DHS	NSO	10 years
		DoE Annual Report		DoE	Annually

Land Use					
24	Statistics on land use & access	Lands & Physical Planning Annual Report		DLPP	Annually
		Incorporated Land Groups Annual Report		Incorporated Land Groups	Annually
Health					
25	Infant mortality rates (up to 12 months) Children under five mortality rate Life expectancy at birth	Health Annual Report, NHIS		Department of Health	Annually
		Civil Registry Office (CRO) Annual Report		CRO	Annually
			NPHC, DHS	NSO	10 years
26	Maternal mortality rates	Health Annual Report, NHIS		Department of Health	Annually
		CRO Annual Report		CRO	Annually
			NPHC, DHS	NSO	10 years
27	Fertility rate	Health Annual Report, NHIS		Department of Health	Annually
			NPHC, DHS	NSO	10 year
28	Morbidity rate	Health Annual Report, NHIS		Department of Health	Annually
			NPHC, DHS	NSO	10 years
29	Crude birth rate Crude death rate	Vital statistics (birth, death)		CRO	Annually
		Health Annual Report, NHIS		Department of Health	Annually
			NPHC, DHS	NSO	10 years
30	Supervised deliveries, antenatal care, immunization coverage	Health Annual Report, NHIS		Department of Health	Annually
			DHS	NSO	10 years
31	Access to health facilities	Health Annual Report, NHIS		Department of Health	Annually
			DHS	NSO	10 years
			Access to Health Facilities Survey	National Research Institute (NRI)	10 years
Education					
32	Net admission rate	Education Annual Report	School Census, Education Annual Survey	Department of Education	Annually
33	Net enrollment rate, Gross enrollment rate	Education Annual Report	School Census, Education Annual Survey	Department of Education	Annually
			NPHC	NSO	10 years
34	Completion rate (Grade 8, 10, 12)	Education Annual Report	School Census, Education Annual Survey	Department of Education	Annually
			NPHC	NSO	10 years

35	Sex enrollment ratios (grade aggregated, age aggregated)	Education Annual Report	School Census, Education Annual Survey	Department of Education	Annually
			NPHC	NSO	10 years
36	Retention rate	Education Annual Report	School Census, Education Annual Survey	Department of Education	Annually
37	Average class size	Education Annual Report	School Census, Education Annual Survey	Department of Education	Annually
38	Teacher to pupil ratio	Education Annual Report	School Census, Education Annual Survey	Department of Education	Annually
39	Literacy rate - Youth & adult	Education Annual Report		Department of Education	Annually
		Education Annual Report	National Literacy Survey	NLAS	Annually, 5 years
			NPHC	NSO	10 years
Higher Education					
40	Enrollment at tertiary institutions	Dept. of Higher Education, Research, Science & Technology (DHERST) Annual Report	DHERST Annual Survey	DHERST	Annually
			NPHC	NSO	10 years
41	Graduates (tertiary education)		Graduate Destination Survey	DHERST	Annually
			NPHC	NSO	10 years
42	Females in tertiary institutions	DHERST Annual Report	DHERST Annual Survey	DHERST	Annually
			NPHC	NSO	10 years
43	Skilled workforce	Labour Statistics Annual Report		DLIR	Annually
			Labour Market Survey (LMS)	DLIR	5 years
		DHERST Annual Labour Report	DHERST Annual Survey	DHERST	Annually
			NPHC, HIES	NSO	10 years
Transport					
44	Percentage of national roads in good condition	Transport Annual Report		NRA/Department of Transport	Annually
		Works Annual Report		Department of Works	Annually
45	Nationally declared ports	PNG Ports Annual Report		PNG Ports	Annually
46	Provincial & other ports	Provincial ports Annual Reports		Provincial ports	Annually
			Provincial Baseline Surveys (PBS)	Provincial ports	5 years

47	Rural jetties	Provincial Ports Annual Reports		Provincial ports	Annually
			PBS	Provincial ports	5 years
48	International Airports	National Airports Corporation Annual Report		National Airports Corporation (NAC)	Annually
49	National airports, Provincial & other airports	NAC Annual Report		NAC	Annually
50	Rural Airstrips		PBS	Rural Airstrips Authority	5 years
51	Safety compliance (Airports, Wharves)	PNG CASA Annual Report		Civil Aviation Authority	Annually
		NMSA Annual Report		National Maritime Safety Authority	Annually
Utilities					
52	Proportion of population having access to safe water (piped)	Water PNG Annual Report		Water PNG	Annually
		Eda Ranu Annual Report		Eda Ranu	Annually
			HIES, DHS	NSO	10 years
53	Improved sanitation	Water PNG Annual Report		Water PNG/Eda Ranu	Annually
			HIES, DHS	NSO	10 years
54	Postal services	Post PNG Annual Report		Post PNG	Annually
			HIES	NSO	10 years
55	Household with access to electricity	PNG Power Annual Report		PNG Power	Annually
			HIES	NSO	10 years
Law & Justice Sector					
56	Police statistics (crime) & administrative data	Department of Police Annual Report		Department of Police (RPNGC)	Annually
57	Correctional Institutional Services statistics	CIS Annual Report		Department of CIS	Annually
58	Statistics & data from Department of Justice & Attorney General	Department of Justice & Attorney General Annual Report		DJAG	Annually

Annex 3: List of members of various PNGSDS Committees

PNGSDS Steering Committee	
Mr. Joe Kapa (Chairman) – Deputy Secretary & OIC, DNPM	Mr. Gregory John, Manager, PP, Department of Works
Mr. John Igitoi, PNGSDS Manager, DNPM	Dr. Esther Lavu, National Research Institute
Dr. Wilfred Kaleva, PNG Social & Demographic Sector Consultant	Ms. Nellie Kunjip Kup – Senior Policy Officer, Department of Transport
Mr. Taunao Vai, PNGSDS Economic & Financial Sector Consultant	Ms. Joycelyn Namori – Senior Policy Officer, Department of Policy & Geo-Hazards
Mr. Alfred Mokae – FAS, Macro Planning Division, DNPM	Mr. Gordon Wafimbi – Assistant Secretary, Dept. of Implementation & Rural Development
Mr. Maino Virobo – Deputy Secretary, Department of Environment and Conservation	Mr. Frank Babaga – Assistant Secretary, PNG Correctional Service
Mr. Michael Kumung, AS, Modeling, DNPM	Mr. Joe Itaki, Executive Manager, DFCOR
Mr. Flierl Shoneol, Advisor, Dept. Com & Information	Mr. Gerard Natera, Executive Manager, CEPA
Mr. Willie Kunsei, Statistician, DTCI	Mr. Alup Kanawi, Liaison Officer, PM & NEC
Mrs. Nancy Lelang, FAS, Dept. of Treasury	Ms. Maria-Louise Wau – Assistant Secretary, DNPM
Mr. Samson Pes – Labour Market and Information Service, DLIR	Dr. Ururang Kitur – Principal Adviser, Research & Policy Branch, Dept. of Health
Mr. Maxton Essy – AS, Dept. of Education	Mr. Vincent Malaibe – Deputy VC, UPNG
Ms. Priscilla Rasehei, Manager, Statistics Department of Education	Mr. Anthony Nakuk – Assistant Secretary, Department of Trade Commerce & Industry
Mr. Gerisomd James – Chief Physical Planner, Department of Lands and Physical Planning	Mr. Jeffrey Yabom – Research and Policy Division Manager, Bank of PNG
Mr. Dennis Gonnisso – Acting Deputy National Statistician – NSO	Mr. John Karani, Department of Higher Education, Research, Science & Technology
Mr. Amos Uriningi, Assistant Secretary, DIRD	Ms. Stephanie Trinci, Economist, IRC
Mr. Michael George, Manager - Research, IPA	Mr. Rock Abulaka, Lecturer (Statistics), UPNG
Ms. Luanne Isikel, Network Officer, DLIR	Kingsely Isaiiah, ICT Manager, DLIR
Mr. Paik Tade, Senior Research Officer, DoH	Mr. Ephraim Danny, Economist, Treasury
PNGSDS Technical Working Committee	
Mr. Alfred Mokae - Chairman – FAS, Macro Planning Division, DNPM	Dr. Esther Lavu - National Research Institute
Mr. John Igitoi, PNGSDS Manager, DNPM	Ms. Elizabeth Kote – Senior Research Officer, DLIR
Dr. Wilfred Kaleva, Social & Demographic Sector Consultant	Dr. Ururang Kitur – Principal Adviser, Research & Policy Branch, Dept. of Health
Mr. Taunao Vai, PNGSDS Economic & Financial Sector Consultant	Mr. Dennis Gonnisso – Acting Deputy National Statistician – NSO
Ms. Rosemary Matawai – Senior Analyst, DNPM	Mr. Vincent Malaibe – Deputy Vice Chancellor, UPNG
Mr. Jeffrey Yabom – Research and Policy Division Manager, Bank of PNG	Mr. Gordon Wafimbi – Assistant Secretary, Dept. of Implementation & Rural Development
Ms. Rose Kamuta – AS, DNPM	Mr. Boe Douna – Assistant DNS, NSO
Ms. Hajily Kele – Assistant DNS, NSO	Mr. John Karani – a/Executive Manager, DHERST
PNGSDS Working Team	
Mr. John Igitoi, PNGSDS Manager, DNPM	Ms. Rosemary Matawai, DNPM
Dr. Wilfred Kaleva, Social & Demographic Sector Consultant	Mr. Taunao Vai, PNGSDS Economic & Financial Sector Consultant
Ms. Maria-Louise Wau, DNPM	Mr. Kilian Sesega, DNPM
Mr. Arnold Soni, Branch Manager, NSO	Ms. Elsay Mumu, DNPM

