Annex 1: Key relevant references


Decentralization:
1. Independent State of Papua New Guinea Health System Review 2019
https://apps.who.int/iris/bitstream/handle/10665/280088/9789290226741-eng.pdf?sequence=5&isAllowed=y

2. Decentralization, provincial policy making and the law in Papua New Guinea

Decentralisation in a developing country: the experience of Papua New Guinea and its health service
https://openresearch-repository.anu.edu.au/handle/1885/132705

3. Corruption:
https://www.theguardian.com/world/2019/nov/06/manus-maseratis-and-corruption-peter-oneill-on-eight-years-leading-papua-new-guinea

Human rights watch

Amnesty international

Human Rights Stagnate Under New Leadership in Papua New Guinea

Transparency International:
https://voices.transparency.org/will-papua-new-guinea-get-serious-about-corruption-f66aa53f89e

5. Articles in media about corruption e.g https://www.thenational.com.pg/corruption-in-png/

5. Peer reviewed articles e.g. Defining Corruption Where the State is Weak: The Case of Papua New Guinea

Institutions:
Overview of institutions with access to additional information
https://unimelb.libguides.com/png


6. UN human rights chief urges Papua New Guinea to combat corruption and strengthen rule of law

8. Return to Abuser: Gaps in services and a failure to protect survivors of family and sexual violence in Papua New Guinea  


In response to COVID-19:  
We have nothing: PNG’s broken health system braces for COVID-19.  
Papua New Guinea

Demographic and Health Survey
2016-18

Key Indicators Report

National Statistical Office
Port Moresby, Papua New Guinea

The DHS Program
ICF
Rockville, Maryland, USA

May 2019
The 2016-18 Papua New Guinea Demographic and Health Survey (2016-18 PNG DHS) was implemented by the National Statistical Office from October 2016 to December 2018. Funding for the 2016-18 PNG DHS was provided by the Government of Papua New Guinea (GOPNG), the Australian Government Department of Foreign Affairs and Trade (DFAT), the United Nations Population Fund (UNFPA), and the United Nations Children’s Fund (UNICEF). ICF provided technical assistance through The DHS Program, a project funded by the United States Agency for International Development (USAID) that provides support and technical assistance in the implementation of population and health surveys in countries worldwide.

Additional information about the 2016-18 PNG DHS may be obtained from the Population and Social Statistics Division, National Statistical Office, Kumul Avenue, P.O. Box 337, Waigani 133, NCD, PNG (telephone: +675-301-1200/+675-325-0612; facsimile: +675-325-1869/323-7040; email: info@nso.gov.pg; website: www.nso.gov.pg).

Information about The DHS Program may be obtained from ICF, 530 Gaither Road, Suite 500, Rockville, MD 20850, USA (telephone: +1-301-407-6500; fax: +1-301-407-6501; email: info@DHSprogram.com; Internet: www.DHSprogram.com).

Recommended citation:

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ACRONYMS AND ABBREVIATIONS

ACT  artemisinin-based combination therapy
AIDS  acquired immunodeficiency syndrome
ANC  antenatal care
ARI  acute respiratory infection
ASFR  age-specific fertility rate

BCG  bacille Calmette-Guérin
CBR  crude birth rate
CPR  contraceptive prevalence rate
CU  census unit

DFAT  Department of Foreign Affairs and Trade
DHS  Demographic and Health Survey
DPT  diphtheria, pertussis, and tetanus vaccine

FAO  Food and Agriculture Organization

GOPNG  Government of Papua New Guinea

HepB  hepatitis B
Hib  *Haemophilus influenzae* type B
HIV  human immunodeficiency virus

IPV  inactivated poliomyelitis vaccine
ITN  insecticide-treated net
IUD  intrauterine contraceptive device
IYCF  infant and young child feeding

LLIN  long-lasting insecticidal net

MUAC  mid-upper arm circumference

NDOH  National Department of Health
NN  neonatal mortality
NPHC  National Population and Housing Census
NSO  National Statistical Office

ORS  oral rehydration salts

PCV  pneumococcal conjugate vaccine
PNC  postnatal care
PNG  Papua New Guinea
PNN  postneonatal mortality

SDG  Sustainable Development Goal
SP  sulfadoxine-pyrimethamine
STI  sexually transmitted infection

TFR  total fertility rate
<table>
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<th>Acronym</th>
<th>Full Name</th>
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<tr>
<td>UNFPA</td>
<td>United Nations Population Fund</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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FOREWORD

The Papua New Guinea Demographic and Health Survey (PNG DHS) is a nationally representative survey conducted as a periodic update of the demographic and health situation in PNG. The Demographic and Health Surveys (DHS) Program is a global programme coordinated by ICF, based in Rockville, Maryland, USA. The 2016-18 PNG DHS is the first DHS to be conducted in PNG in collaboration with the worldwide Demographic and Health Surveys Program. The survey was implemented by the National Statistical Office under the guidance of the DHS National Steering Committee.

The purpose of the DHS was to obtain and provide information on basic indicators of social progress including fertility, childhood mortality, reproductive and child health, nutritional status of children, and awareness of HIV/AIDS and other health-related issues. Data collection for the survey was carried out during October 2016 to December 2018.

The preliminary findings of the 2016-18 PNG DHS presented in this key indicators report provide up-to-date and reliable information on a number of key health and demographic topics of interest to planners, policymakers, programme managers, and researchers with a first glimpse of the survey results. A comprehensive, detailed report is scheduled for release in October 2019.

The successful completion of the 2016-18 PNG DHS was made possible by the contributions of a number of organisations and individuals. I deeply appreciate the financial support from the Government of PNG (GOPNG), the Australian Government Department of Foreign Affairs and Trade (DFAT), the United Nations Population Fund (UNFPA), and the United Nations Children’s Fund (UNICEF). I appreciate ICF for the effort and expert advice in the implementation of the 2016-18 PNG DHS.

The survey was also facilitated and supported by other organisations at the national and provincial levels. The planning and implementation of the 2016-18 PNG DHS involved the efforts of the core DHS project team from the PNG National Statistical Office (NSO) and the provincial administrations, technical officers from the National Department of Health (NDOH), and the various stakeholders’ representation at the technical advisory committees.

The field staff who undertook this vital task to successfully accomplish data collection with commitment, dedication, and hard work are very much appreciated. The survey respondents whose participation was critical to the successful completion of the survey gave generously of their time to provide the information required for the production of this report and are gratefully acknowledged with thanks.

Bernard Kiele
Deputy National Statistician
National Statistical Office
1 INTRODUCTION

The National Statistical Office (NSO) implemented the 2016-18 Papua New Guinea Demographic and Health Survey (2016-18 PNG DHS), which is the third in the series of DHS surveys conducted in the country, however, the first to be conducted under The DHS Program. Data collection commenced in October 2016 and was completed in December 2018. The NSO was tasked with providing all necessary technical and advisory support in the implementation of the 2016-18 PNG DHS.

ICF provided technical assistance through The DHS Program, which offers support and technical assistance for the implementation of population and health surveys in countries worldwide.

Financial support for the 2016-18 PNG DHS was received from the Government of Papua New Guinea (GOPNG), the Australian Government Department of Foreign Affairs and Trade (DFAT), the United Nations Population Fund (UNFPA), and the United Nations Children’s Fund (UNICEF). UNFPA also provided financial management support as fund manager for the donor funding component, while UNICEF provided in-kind equipment for the anthropometric module for children under age 5.

This key indicators report presents selected findings from the 2016-18 PNG DHS. A comprehensive analysis of the data will be presented in a final report to be published in October 2019.

1.1 SURVEY OBJECTIVES

The primary objective of the 2016-18 PNG DHS is to provide up-to-date estimates of basic demographic and health indicators. Specifically, the 2016-18 PNG DHS collected information on fertility, awareness and use of family planning methods, breastfeeding practices, nutritional status of children, maternal and child health, adult and childhood mortality, women’s empowerment, domestic violence, malaria, awareness and behaviour regarding HIV/AIDS and other sexually transmitted infections (STIs), and other health-related issues. It also collected information on household agricultural activities and household food security.

The information collected through the 2016-18 PNG DHS is intended to assist policymakers and programme managers in designing and evaluating programmes and strategies for improving the health of the country’s population. The 2016-18 PNG DHS also provides indicators relevant to the Sustainable Development Goals (SDGs) for the country.
2 SURVEY IMPLEMENTATION

2.1 SAMPLE DESIGN

The sample for the 2016-18 PNG DHS is nationally representative and covers the entire population residing in private dwelling units in the country. The survey used the list of census units (CUs) from the 2011 PNG National Population and Housing Census (NPHC) as the sampling frame. Administratively, PNG is divided into 22 provinces, and each province is sub-divided into urban and rural areas. Each province is also divided into districts and each district is divided into local-level governments, which are in turn divided into wards. Each ward is divided into census units. The average CU size is 50 households, with urban CUs having 70 households on average and rural CUs having an average of 48 households. The sampling frame contains information on CU location, type of residence (urban or rural), estimated number of residential households, and population by sex.

The 2016-18 PNG DHS sample was stratified and selected in two stages. Each province was stratified into urban and rural areas, yielding 43 sampling strata with the exception of National Capital District, which has no rural areas. Samples of CUs were selected independently in each stratum in two stages. Implicit stratification and proportional allocation were achieved at each of the lower administrative levels by sorting the sampling frame within each sampling stratum before sample selection, according to administrative units at different levels, and by using a probability proportional to size selection at the first stage of sampling.

In the first stage, 800 CUs were selected with probability proportional to CU size, which is the number of residential households found in the CU during the 2011 NPHC. A household listing operation, conducted prior to data collection, was carried out in all of the selected clusters, and the resulting lists of households served as a sampling frame for the selection of households in the next stage. Some of the selected clusters were large, with more than 200 households. In order to minimise the task of the listing team, these selected clusters were segmented. Only one segment was selected for the survey with probability proportional to segment size. Household listing was conducted only in the selected segment. This means that a cluster is either a CU or a segment of a CU.

In the second stage of selection, a fixed number of 24 households per cluster were selected with an equal probability systematic selection from the newly created household listing, resulting in a total sample size of approximately 19,200 households. No replacements and no changes of the pre-selected households were allowed in the implementing stages in order to prevent bias. In cases in which a CU had fewer than 24 households, all households were included in the sample. All women age 15-49 who were usual members of the selected households or who spent the night before the survey in the selected households were eligible for the women’s individual interview. In half of the selected households (every second household), all men age 15-49 who were usual members of the households or who spent the night before the survey in the households were eligible for the men’s individual interview. In households selected for men’s interviews, all children under age 6 were eligible for height/length, weight, and mid-upper-arm circumference (MUAC) measurements. Similarly, one woman age 15-49 was selected from each household in this subsample for the domestic violence module.

Due to the non-proportional allocation of the sample to the different provinces and to urban and rural areas, and due to the possible differences in response rates, sampling weights were calculated, added to the data file, and applied so that the results would be representative at the national level as well as the domain level. Since the 2016-18 PNG DHS sample was a two-stage stratified cluster sample selected from the sampling frame, sampling weights were calculated based on sampling probabilities separately for each sampling stage and for each cluster.
2.2 QUESTIONNAIRES

Three questionnaires were used for the 2016-18 PNG DHS: the Household Questionnaire, the Woman’s Questionnaire, and the Man’s Questionnaire. These questionnaires, based on The DHS Program’s standard Demographic and Health Survey (DHS-7) questionnaires, were adapted to reflect the population and health issues relevant to Papua New Guinea. Input was solicited from members of the Users Advisory Committee, representing government departments and agencies, nongovernment organisations, and international donors.

The Household Questionnaire was used to list all of the usual members and visitors who slept in the household the night before the survey. Basic demographic information was collected on the characteristics of each person listed, including his or her age, sex, marital status, education, and relationship to the head of the household; data on parents’ survival status were also collected. The data on age and sex of household members obtained in the Household Questionnaire were used to identify women and men who were eligible for individual interviews. The Household Questionnaire also collected information on characteristics of the household’s dwelling unit, such as source of water, type of toilet facilities, materials used for the floor, wall, and roof of the dwelling unit, ownership of various durable goods, ownership and use of mosquito nets, and availability of hand washing facilities. An additional module developed by the Food and Agriculture Organization (FAO) to measure food insecurity and household activities in agriculture was included in the Household Questionnaire as well. In terms of country-specific needs, data on fortified rice, flour, and iodised salt were also collected.

The Woman’s Questionnaire was used to collect information from all eligible women age 15-49. These women were asked questions on the following topics:

- Background characteristics (including age, education, and media exposure)
- Birth history and child mortality
- Knowledge, use, and source of family planning methods
- Antenatal, delivery, and postnatal care
- Vaccinations and childhood illnesses
- Breastfeeding and infant feeding practices
- Marriage and sexual activity
- Fertility preferences (including desire for more children and ideal number of children)
- Women’s work and husbands’ background characteristics
- Knowledge, awareness, and behaviour regarding HIV/AIDS and other sexually transmitted infections (STIs)
- Knowledge, attitudes, and behaviour related to other health issues (e.g., smoking)
- Adult and maternal mortality
- Domestic violence

The Man’s Questionnaire was administered to all men age 15-49 in the subsample of households selected for the men’s survey. The Man’s Questionnaire collected much of the same information as the Woman’s Questionnaire but was shorter because it did not contain a detailed reproductive history, questions on maternal and child health, or questions on maternal mortality and domestic violence.

The Household Questionnaire also included a section that recorded anthropometric measurements for children in the subsample of households selected for the male survey. This included measurement of mid-upper-arm circumference (MUAC) and height and weight measurements for children age 0-59 months. Weight measurements were made using lightweight SECA scales with digital displays (model no. SECA 878U), which were designed and manufactured under the authority of the United Nations Children’s Fund (UNICEF). Height/length measurements were taken using a standard measuring board (Shorr Board®). Recumbent length (lying down) was measured for children younger than age 24 months; standing height was measured for older children.
2.3 Pretest

A pretest was conducted in National Capital District and Central Province in July 2016. Pretest preparations consisted of in-class training, demonstration of interviews in front of the class, role playing, tests, quizzes, a visit to a children’s ward in Port Moresby General Hospital to practice collecting weight and height data for children, a visit to a medical laboratory at the University of Papua New Guinea School of Medical and Health Science to practice salt and rice testing, and field practice days.

The field practice was conducted over a period of 5 days in two urban and two rural clusters that were not included in the 2016-18 PNG DHS sample. A total of 24 trainees (8 males and 16 females) participated in the pretest. All trainees had some experience with household surveys, either involvement in previous PNG DHS surveys or involvement in other similar surveys. Following field practice, a debriefing session was held with the pretest field staff, and modifications to the questionnaires were made based on lessons drawn from the exercise.

2.4 Training of Field Staff

Training for the field staff was conducted in two stages. In the first stage, 44 persons (28 females and 16 males) were trained as master trainers. Master trainers comprised 22 staff from the NSO and the National Department of Health (NDOH), while 22 assistant trainers were recruited from the provinces. This training took place outside of Port Moresby (Central Province) at the Kokoda Trail Motel in August 2016. Four core project staff participated in the master trainers training as facilitators. ICF staff provided technical support during the training sessions. To provide a better understanding of the importance of the 2016-18 PNG DHS in the context of PNG’s health and population policies and programmes, the training also included presentations given by NDOH staff covering specific programmes such as those addressing malaria, HIV/AIDS, child immunisations, child nutrition, childhood diseases, and gender-based violence.

A one-day field practice session for the master trainers in the nearby census units was conducted to allow the trainers to have a feel of the three questionnaires that were to be used in the survey.

In the second stage, the master trainers were sent to the 22 training centres in the provinces. Trainers were paired; one was from the NSO/NDOH and one from the respective province. In total, the NSO recruited and trained 427 persons for the main fieldwork to serve as team leaders, field editors, interviewers, and reserve interviewers. The training took place simultaneously from September 12 to 26, 2016, in all 22 provinces of the country.

The training course consisted of instruction regarding interviewing techniques and field procedures, a detailed review of questionnaire content, instruction on how to administer the paper questionnaires, and mock interviews between participants in the classroom. Practice interviews with real respondents were arranged in census units that were close to the training venues but were not included in the survey sample. A two- to three-day field practice was organised, according to provincial requirements, to provide trainees with additional hands-on practice before the actual fieldwork. Since the households in these practice census units had not been listed, the teams carried out manual listing to select the 24 households for the three questionnaires to be administered. During the training, arrangements were made with mothers from nearby census units to bring their children to the training venues to be measured and weighed for class practice. The trainees were divided into teams to go through this exercise. Ultimately, 106 males and 212 females (318 in total) were selected to serve as interviewers, with an additional 53 selected as field editors/team leaders. The selection of team leaders/field editors was based on their experience in leading survey teams and their performance during the training. Team leaders/field editors received additional instructions and practice to perform supervisory activities, including assigning households and receiving and reviewing completed questionnaires from interviewers.
2.5 FIELDWORK

Data collection took place over 27 months from October 2016 to December 2018. Field operations were carried out by 53 teams, each consisting of one field editor/team leader, four female interviewers, and two male interviewers. A total of 371 personnel were initially involved in the data collection for the 2016-18 PNG DHS.

Data collection occurred in four phases over the 27-month period. Phase 1 was from October 1 to December 9, 2016; phase 2 was from March to June 2017; phase 3 was from October 22 to December 22, 2017; and the last phase was from April 20 to December 14, 2018. The number of teams decreased from 53 in October 2016 to 11 in December 2018, with team composition maintained throughout the survey period.

Fieldwork required more time than expected due to various challenges: inaccessibility due to the geography of the country and severe weather patterns, refusal by respondents to participate in the survey, need for security due to law and order situations and outstanding payments owed to service providers, absence of reliable communication services, and late disbursement of funds to support teams in the field. As a result, fieldwork could be completed only for 767 clusters of the 800 initially selected.

Despite these challenges, the survey teams managed to travel throughout the country and collect data even under difficult circumstances without compromising the quality of the data. Senior staff from the NSO coordinated and supervised fieldwork activities in the provinces.

2.6 DATA PROCESSING

All completed questionnaires were delivered to the NSO central office in Port Moresby, where they were registered and stored. The data processing operation included registration of the questionnaires, office editing and coding, data capture and verification, and secondary data editing, which required resolution of computer-identified inconsistencies and coding of open-ended questions. Data processing commenced on January 10, 2017, and was completed on January 31, 2019.

During the course of the data processing operation (2017-2019), a total of 63 personnel were engaged. The composition of engaged personnel changed in order to meet the urgency and needs of the project during different time periods. However, the standard composition of personnel in different sections of data processing was always as follows: (a) registration, 1; (b) office editing, 6; (c) data entry and verification, 20; (d) secondary editing, 4; (e) and final editing, 3. There were occasions when multiple shifts were introduced to fast track the operation (January through April 2017). In these scenarios, the number of personnel, particularly in data entry and verification, more than doubled to 40-45.

The initial plan was to introduce the computer-assisted field editing (CAFE) procedure to ensure that data digitisation and quality verifications were done in the field before the questionnaires (and digitised data) were returned to NSO headquarters for further processing. However, this did not happen, and centralised data processing was done at NSO headquarters when all completed questionnaires from the clusters were brought back from the field. Final cleaning of data by the ICF data processing specialist was completed on March 16, 2019.

Throughout this report, numbers in the tables reflect weighted numbers. Percentages based on 25 to 49 unweighted cases are shown in parentheses, and percentages based on fewer than 25 unweighted cases are suppressed and replaced with an asterisk, to caution readers when interpreting data that a percentage based on fewer than 50 cases may not be statistically reliable.
3 KEY FINDINGS

3.1 RESPONSE RATES

Table 1 shows response rates for the 2016-18 PNG DHS. A total of 17,505 households were selected for the sample, of which 16,754 were occupied. Of the occupied households, 16,021 were successfully interviewed, yielding a response rate of 96%. In the interviewed households, 18,175 women age 15-49 were identified for individual interviews; interviews were completed with 15,198 women, yielding a response rate of 84%. In the subsample of households selected for the male survey, 9,141 men age 15-49 were identified and 7,333 were successfully interviewed, yielding a response rate of 80%.

<table>
<thead>
<tr>
<th>Table 1 Results of the household and individual interviews</th>
</tr>
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<tbody>
<tr>
<td>Number of households, number of interviews, and response rates, according to residence (unweighted), PNG DHS 2016-18</td>
</tr>
<tr>
<td>Result</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>Household interviews</td>
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<tr>
<td>Household response rate</td>
</tr>
<tr>
<td>Interviews with women age 15-49</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Eligible women response rate</td>
</tr>
<tr>
<td>Household interviews in subsample</td>
</tr>
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<td></td>
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<td></td>
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<tr>
<td>Household response rate in subsample</td>
</tr>
<tr>
<td>Interviews with men age 15-49</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Eligible men response rate</td>
</tr>
</tbody>
</table>

1 Households interviewed/households occupied
2 Respondents interviewed/eligible respondents

3.2 CHARACTERISTICS OF RESPONDENTS

Table 2 shows, by background characteristics, the weighted and unweighted numbers and the weighted percent distributions of women and men age 15-49 interviewed in the 2016-18 PNG DHS. More than half of the women (54%) and men (53%) in the sample are under age 30.

A majority of respondents are Christians. About a quarter of women (25%) and men (24%) are Roman Catholic, 14% of women and 15% of men are Seventh Day Adventist, and 13% of women and 14% of men are Evangelical Lutheran.

The majority of respondents are currently married or living together with a partner (66% of women and 54% of men). Men are more likely than women to have never been married (43% versus 26%). Two percent of women are widowed, and 6% are divorced or separated. The proportion of men who are widowed, divorced, or separated is lower than the proportion among women.

Eighty-seven percent of women and men live in rural areas, and two in five live in the Highlands region of the country.
Twenty-three percent of women and 13% of men have no education. Twenty-seven percent of women and 35% of men have at least some secondary education or higher.

### Table 2 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, PNG DHS 2016-18

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weighted percent</td>
<td>Weighted number</td>
</tr>
<tr>
<td>Age</td>
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<td></td>
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<tr>
<td>15-19</td>
<td>19.4</td>
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<td>20-24</td>
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<td>25-29</td>
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<td>Evangelical Lutheran</td>
<td>12.5</td>
<td>1,907</td>
</tr>
<tr>
<td>Roman Catholic</td>
<td>24.9</td>
<td>3,785</td>
</tr>
<tr>
<td>Salvation Army</td>
<td>0.3</td>
<td>43</td>
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<tr>
<td>Seventh Day Adventist</td>
<td>13.7</td>
<td>2,077</td>
</tr>
<tr>
<td>United Church</td>
<td>10.4</td>
<td>1,582</td>
</tr>
<tr>
<td>Other Christian Church</td>
<td>21.3</td>
<td>3,232</td>
</tr>
<tr>
<td>Non-Christian</td>
<td>0.6</td>
<td>90</td>
</tr>
<tr>
<td>No religion</td>
<td>0.6</td>
<td>88</td>
</tr>
<tr>
<td>Missing</td>
<td>0.3</td>
<td>43</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>26.1</td>
<td>3,968</td>
</tr>
<tr>
<td>Married</td>
<td>54.6</td>
<td>8,299</td>
</tr>
<tr>
<td>Living together</td>
<td>11.5</td>
<td>1,752</td>
</tr>
<tr>
<td>Divorced/separated</td>
<td>6.2</td>
<td>943</td>
</tr>
<tr>
<td>Widowed</td>
<td>1.6</td>
<td>236</td>
</tr>
<tr>
<td>Residence</td>
<td></td>
<td></td>
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<tr>
<td>Urban</td>
<td>13.3</td>
<td>2,018</td>
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<tr>
<td>Rural</td>
<td>86.7</td>
<td>13,180</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern</td>
<td>19.1</td>
<td>2,899</td>
</tr>
<tr>
<td>Highlands</td>
<td>40.9</td>
<td>6,213</td>
</tr>
<tr>
<td>Morobe</td>
<td>25.8</td>
<td>3,919</td>
</tr>
<tr>
<td>Islands</td>
<td>14.3</td>
<td>2,167</td>
</tr>
<tr>
<td>Education</td>
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<td></td>
</tr>
<tr>
<td>No education</td>
<td>23.0</td>
<td>3,488</td>
</tr>
<tr>
<td>Elementary</td>
<td>4.4</td>
<td>676</td>
</tr>
<tr>
<td>Primary</td>
<td>45.9</td>
<td>6,969</td>
</tr>
<tr>
<td>Secondary</td>
<td>22.8</td>
<td>3,460</td>
</tr>
<tr>
<td>Higher</td>
<td>4.0</td>
<td>605</td>
</tr>
<tr>
<td>Wealth quintile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest</td>
<td>18.3</td>
<td>2,783</td>
</tr>
<tr>
<td>Second</td>
<td>18.6</td>
<td>2,831</td>
</tr>
<tr>
<td>Middle</td>
<td>19.1</td>
<td>2,897</td>
</tr>
<tr>
<td>Fourth</td>
<td>20.5</td>
<td>3,118</td>
</tr>
<tr>
<td>Highest</td>
<td>23.5</td>
<td>3,569</td>
</tr>
<tr>
<td>Total 15-49</td>
<td>100.0</td>
<td>15,198</td>
</tr>
</tbody>
</table>

Note: Education categories refer to the highest level of education attended, whether or not that level was completed.

1 Elementary refers to grades 1-2.

2 Primary refers to grades 3-8.

3 Secondary refers to grades 9-12.

4 Higher refers to above grade 12.

### 3.3 Fertility

To generate data on fertility, all women who were interviewed were asked to report the total number of sons and daughters to whom they had ever given birth. To ensure that all information was reported, women were asked separately about children still living at home, those living elsewhere, and those who had died. A complete birth history was then obtained, including information on the sex, date of birth, and survival status of each child; age at death for children who had died was also recorded.
Table 3 shows age-specific fertility rates (ASFRs) among women by 5-year age groups for the 3-year period preceding the survey. Age-specific and total fertility rates were calculated directly from the birth history data, taking into account live births. The sum of age-specific fertility rates (known as the total fertility rate, or TFR) is a summary measure of the level of fertility. It can be interpreted as the number of children a woman would have by the end of her childbearing years if she were to pass through those years bearing children at the currently observed age-specific rates. If fertility were to remain constant at current levels, a woman in Papua New Guinea would bear an average of 4.2 children in her lifetime. The 2006 PNG DHS indicated that the TFR was 4.4 births per woman (National Statistical Office 2009). Fertility is low among adolescents age 15-19 (68 births per 1,000 women), peaks at 203 births per 1,000 among women age 25-29, and decreases thereafter.

<table>
<thead>
<tr>
<th>Age group</th>
<th>Urban</th>
<th>Rural</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-14</td>
<td>[0]</td>
<td>[1]</td>
<td>[1]</td>
</tr>
<tr>
<td>15-19</td>
<td>59</td>
<td>69</td>
<td>68</td>
</tr>
<tr>
<td>20-24</td>
<td>159</td>
<td>205</td>
<td>199</td>
</tr>
<tr>
<td>25-29</td>
<td>188</td>
<td>205</td>
<td>203</td>
</tr>
<tr>
<td>30-34</td>
<td>139</td>
<td>166</td>
<td>163</td>
</tr>
<tr>
<td>35-39</td>
<td>112</td>
<td>126</td>
<td>124</td>
</tr>
<tr>
<td>40-44</td>
<td>47</td>
<td>61</td>
<td>59</td>
</tr>
<tr>
<td>45-49</td>
<td>[5]</td>
<td>[26]</td>
<td>[23]</td>
</tr>
</tbody>
</table>

Notes: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates are for the period 1-36 months preceding the interview. Rates for the 10-14 age group are based on retrospective data from women age 15-17.

The TFR: Total fertility rate, expressed per woman
GFR: General fertility rate, expressed per 1,000 women age 15-44
CBR: Crude birth rate, expressed per 1,000 population

Fertility is higher among rural women than among urban women; on average, rural women will give birth to about 0.8 children more than urban women during their reproductive years (4.3 and 3.5, respectively). This pattern is consistent across the different age groups (Figure 1).

**Figure 1 Age-specific fertility rates by residence**

Births per 1,000 women

1 Numerators for the age-specific rates are calculated by summing the births that occurred during the 1-36 months preceding the survey, classified by the 5-year age group of the mother at the time of the birth. The denominators are the numbers of woman-years lived in each 5-year age group during the 1-36 months preceding the survey.
3.4 **TEENAGE PREGNANCY AND MOTHERHOOD**

The issue of adolescent fertility is important for both health and social reasons. Children born to very young mothers are at increased risk of sickness and death. Teenage mothers are more likely to experience adverse pregnancy outcomes and to be constrained in their ability to pursue educational opportunities than young women who delay childbearing.

Table 4 shows the percentage of women age 15-19 who had given birth or were pregnant with their first child at the time of the survey, according to background characteristics. Overall, 12% of women age 15-19 had begun childbearing: 10% had had a live birth and 3% were pregnant at the time of the interview. The proportion of teenagers who had begun childbearing rises rapidly with age, from 3% at age 15 to 27% at age 19. Rural teenagers tend to start childbearing earlier than urban teenagers (13% versus 10%).

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>Percentage of women age 15-19 who:</th>
<th>Percentage who have begun childbearing</th>
<th>Number of women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Have had a live birth</td>
<td>Are pregnant with first child</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>1.7</td>
<td>1.1</td>
<td>494</td>
</tr>
<tr>
<td>16</td>
<td>2.1</td>
<td>1.3</td>
<td>617</td>
</tr>
<tr>
<td>17</td>
<td>7.7</td>
<td>2.7</td>
<td>604</td>
</tr>
<tr>
<td>18</td>
<td>12.1</td>
<td>3.0</td>
<td>624</td>
</tr>
<tr>
<td>19</td>
<td>23.1</td>
<td>4.0</td>
<td>607</td>
</tr>
<tr>
<td>Residence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>8.0</td>
<td>1.8</td>
<td>416</td>
</tr>
<tr>
<td>Rural</td>
<td>9.9</td>
<td>2.6</td>
<td>2,529</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern</td>
<td>10.3</td>
<td>2.0</td>
<td>590</td>
</tr>
<tr>
<td>Highlands</td>
<td>10.5</td>
<td>2.6</td>
<td>1,255</td>
</tr>
<tr>
<td>Momase</td>
<td>9.7</td>
<td>2.8</td>
<td>661</td>
</tr>
<tr>
<td>Islands</td>
<td>6.1</td>
<td>2.4</td>
<td>439</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>No education</td>
<td>21.3</td>
<td>1.5</td>
<td>291</td>
</tr>
<tr>
<td>Elementary</td>
<td>21.9</td>
<td>1.2</td>
<td>125</td>
</tr>
<tr>
<td>Primary</td>
<td>9.1</td>
<td>3.1</td>
<td>1,823</td>
</tr>
<tr>
<td>Secondary</td>
<td>4.1</td>
<td>1.4</td>
<td>703</td>
</tr>
<tr>
<td>Higher</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Wealth quintile</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest</td>
<td>13.4</td>
<td>2.2</td>
<td>520</td>
</tr>
<tr>
<td>Second</td>
<td>8.4</td>
<td>2.7</td>
<td>517</td>
</tr>
<tr>
<td>Middle</td>
<td>13.5</td>
<td>2.3</td>
<td>559</td>
</tr>
<tr>
<td>Fourth</td>
<td>9.6</td>
<td>3.6</td>
<td>628</td>
</tr>
<tr>
<td>Highest</td>
<td>4.8</td>
<td>1.6</td>
<td>721</td>
</tr>
<tr>
<td>Total</td>
<td>9.6</td>
<td>2.5</td>
<td>2,945</td>
</tr>
</tbody>
</table>

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Teenagers with a secondary education and those in the highest wealth quintile tend to start childbearing later than those with no education or an elementary education (23% each) and those in the lowest and middle quintiles (16% each).

3.5 **FERTILITY PREFERENCES**

Information on fertility preferences is used to assess the potential demand for family planning services for the purposes of spacing or limiting future childbearing. To elicit information on fertility preferences, several questions were asked of currently married women (pregnant or not) regarding whether they wanted to have another child and, if so, how soon.

Table 5 shows that 10% of women want to have another child soon (within the next 2 years), and 16% want to have another child later (in 2 or more years). Forty-six percent of women want no more children or have already been sterilised. Thirteen percent have not decided if they want another child.
Table 5  Fertility preferences according to number of living children

Percent distribution of currently married women age 15-49 by desire for children, according to number of living children, PNG DHS 2016-18

<table>
<thead>
<tr>
<th>Desire for children</th>
<th>Number of living children1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Have another soon2</td>
<td>41.0</td>
</tr>
<tr>
<td>Have another later2</td>
<td>7.7</td>
</tr>
<tr>
<td>Have another, undecided when</td>
<td>2.8</td>
</tr>
<tr>
<td>Undecided</td>
<td>13.6</td>
</tr>
<tr>
<td>Want no more</td>
<td>4.1</td>
</tr>
<tr>
<td>Sterilised4</td>
<td>0.4</td>
</tr>
<tr>
<td>Declared infecund</td>
<td>24.1</td>
</tr>
<tr>
<td>Missing</td>
<td>6.2</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
<tr>
<td>Number of women</td>
<td>885</td>
</tr>
</tbody>
</table>

1 The number of living children includes the current pregnancy.
2 Wants next birth within 2 years
3 Wants to delay next birth for 2 or more years
4 Includes both female and male sterilisation

Fertility preferences are closely related to number of living children. Forty-one percent of women with no living children want a child soon, as compared with 8% of women with two children. In general, the more children a woman has, the higher the likelihood that she does not want another child.

3.6 FAMILY PLANNING

Family planning refers to a conscious effort by a couple to limit or space the number of children they have through the use of contraceptive methods. Contraceptive methods are classified as modern or traditional. Modern methods include female sterilisation, male sterilisation, the intrauterine contraceptive device (IUD) or loop, implants, injectables, the pill, and condoms. Methods such as rhythm (ovulation/periodic abstinence), withdrawal, and folk methods are grouped as traditional.

Table 6 shows the percent distributions of currently married women and sexually active unmarried women by the contraceptive method they currently use. Overall, 37% of currently married women use a method of family planning, with 31% using a modern method and 6% using a traditional method. Among currently married women, the most popular methods are injectables and implants (each used by 9%), followed by female sterilisation (used by 8%). The contraceptive prevalence rate (CPR) among married women varies with age, rising from 18% among women age 15-19 to a peak of 42% among women age 30-39 before declining to 33% among women age 45-49.

Women in urban areas are more likely to use a contraceptive method than women in rural areas (50% and 35%, respectively). Use of contraception is highest among currently married women in the Southern (49%) and Islands (47%) regions; 41% of women in the Southern region opt for modern methods, as opposed to 31% in the Islands region.
### Table 6  Current use of contraception according to background characteristics

Percent distribution of currently married women and sexually active unmarried women age 15-49 by contraceptive method currently used, according to background characteristics, PNG DHS 2016-18

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>Male sterilization</th>
<th>Female sterilization</th>
<th>Male sterilization Pill IUD/loop Injectables Implants Male condom Female condom Other</th>
<th>Any traditional method</th>
<th>Ovulation/periodic abstinence</th>
<th>Withdrawal</th>
<th>Other</th>
<th>Not currently using</th>
<th>Total</th>
<th>Number of women</th>
</tr>
</thead>
</table>
#### CURRENTLY MARRIED WOMEN

#### Number of living children

<table>
<thead>
<tr>
<th>Age</th>
<th>0</th>
<th>1-2</th>
<th>3-4</th>
<th>5+</th>
<th>15-19</th>
<th>20-24</th>
<th>25-29</th>
<th>30-34</th>
<th>35-39</th>
<th>40-44</th>
<th>45-49</th>
<th>Continues...</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>6.9</td>
<td>4.6</td>
<td>0.4</td>
<td>0.0</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>1.9</td>
<td>0.8</td>
<td>0.1</td>
<td>0.0</td>
<td>2.3</td>
</tr>
<tr>
<td>1-2</td>
<td>33.3</td>
<td>26.9</td>
<td>2.2</td>
<td>0.3</td>
<td>3.4</td>
<td>0.7</td>
<td>10.3</td>
<td>9.3</td>
<td>0.7</td>
<td>0.0</td>
<td>0.0</td>
<td>6.4</td>
</tr>
<tr>
<td>3-4</td>
<td>45.1</td>
<td>38.3</td>
<td>11.5</td>
<td>0.9</td>
<td>2.8</td>
<td>0.9</td>
<td>10.5</td>
<td>11.2</td>
<td>0.3</td>
<td>0.0</td>
<td>0.1</td>
<td>6.8</td>
</tr>
<tr>
<td>5+</td>
<td>44.5</td>
<td>37.4</td>
<td>15.7</td>
<td>2.0</td>
<td>1.5</td>
<td>0.6</td>
<td>9.0</td>
<td>7.9</td>
<td>0.5</td>
<td>0.0</td>
<td>0.1</td>
<td>7.1</td>
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</table>

#### Residence

<table>
<thead>
<tr>
<th>Region</th>
<th>Southern</th>
<th>Highlands</th>
<th>Morobe</th>
<th>Islands</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>48.9</td>
<td>27.5</td>
<td>37.3</td>
<td>47.2</td>
</tr>
<tr>
<td>1-2</td>
<td>41.1</td>
<td>5.8</td>
<td>31.6</td>
<td>30.7</td>
</tr>
<tr>
<td>3-4</td>
<td>12.0</td>
<td>25.0</td>
<td>5.6</td>
<td>13.7</td>
</tr>
<tr>
<td>5+</td>
<td>14.0</td>
<td>1.1</td>
<td>0.7</td>
<td>0.3</td>
</tr>
</tbody>
</table>

#### Education

<table>
<thead>
<tr>
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<th>Elementary</th>
<th>Primary</th>
<th>Secondary</th>
<th>Higher</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.2</td>
<td>35.1</td>
<td>40.2</td>
<td>45.9</td>
<td>41.6</td>
</tr>
<tr>
<td>19.5</td>
<td>31.1</td>
<td>34.2</td>
<td>37.5</td>
<td>30.6</td>
</tr>
<tr>
<td>4.4</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>1.4</td>
<td>1.0</td>
<td>3.1</td>
<td>2.4</td>
<td>6.3</td>
</tr>
</tbody>
</table>

#### Wealth quintile

<table>
<thead>
<tr>
<th>Lowest</th>
<th>Second</th>
<th>Middle</th>
<th>Fourth</th>
<th>Highest</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.2</td>
<td>31.2</td>
<td>36.4</td>
<td>45.2</td>
<td>46.3</td>
</tr>
<tr>
<td>18.5</td>
<td>4.0</td>
<td>0.7</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>3.5</td>
<td>1.2</td>
<td>2.6</td>
<td>3.4</td>
<td>12.5</td>
</tr>
<tr>
<td>0.9</td>
<td>2.6</td>
<td>0.7</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>1.8</td>
<td>0.6</td>
<td>0.7</td>
<td>0.4</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Continued..
Table 6—Continued

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>Modern method</th>
<th>Traditional method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any method</td>
<td>Any modern method</td>
</tr>
<tr>
<td></td>
<td>Female sterilisation</td>
<td>Male sterilisation</td>
</tr>
<tr>
<td></td>
<td>Pill</td>
<td>Injectables</td>
</tr>
<tr>
<td></td>
<td>IUD/loop</td>
<td>Implants</td>
</tr>
<tr>
<td></td>
<td>Male condom</td>
<td>Female condom</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>Other</td>
</tr>
<tr>
<td></td>
<td>Ovulation/periodic abstinence</td>
<td>Withdrawal</td>
</tr>
<tr>
<td></td>
<td>Not currently using</td>
<td>Total</td>
</tr>
<tr>
<td>RESIDENTIAL LOCATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>38.1</td>
<td>27.0</td>
</tr>
<tr>
<td>Rural</td>
<td>14.2</td>
<td>13.4</td>
</tr>
<tr>
<td>Total</td>
<td>18.2</td>
<td>15.7</td>
</tr>
</tbody>
</table>

SEXUALLY ACTIVE UNMARRIED WOMEN¹

<table>
<thead>
<tr>
<th>Residence</th>
<th>Any method</th>
<th>Any modern method</th>
<th>Female sterilisation</th>
<th>Male sterilisation</th>
<th>Pill</th>
<th>Injectables</th>
<th>Implants</th>
<th>Male condom</th>
<th>Female condom</th>
<th>Other</th>
<th>Ovulation/periodic abstinence</th>
<th>Withdrawal</th>
<th>Not currently using</th>
<th>Total</th>
<th>Number of women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>38.1</td>
<td>27.0</td>
<td>5.6</td>
<td>0.0</td>
<td>0.0</td>
<td>1.1</td>
<td>5.7</td>
<td>10.9</td>
<td>3.7</td>
<td>0.0</td>
<td>11.1</td>
<td>5.8</td>
<td>4.7</td>
<td>0.6</td>
<td>61.9</td>
</tr>
<tr>
<td>Rural</td>
<td>14.2</td>
<td>13.4</td>
<td>1.6</td>
<td>0.0</td>
<td>0.4</td>
<td>0.0</td>
<td>2.1</td>
<td>5.7</td>
<td>2.8</td>
<td>0.9</td>
<td>0.8</td>
<td>0.3</td>
<td>0.6</td>
<td>0.0</td>
<td>85.8</td>
</tr>
<tr>
<td>Total</td>
<td>18.2</td>
<td>15.7</td>
<td>2.2</td>
<td>0.0</td>
<td>0.3</td>
<td>0.0</td>
<td>1.9</td>
<td>5.7</td>
<td>4.1</td>
<td>1.4</td>
<td>2.5</td>
<td>1.2</td>
<td>1.3</td>
<td>0.1</td>
<td>81.8</td>
</tr>
</tbody>
</table>

Note: If more than one method is used, only the most effective method is considered in this tabulation.

¹ Women who have had sexual intercourse within 30 days preceding the survey.
Use of contraception increases from 24% among women with no education to 36% among those with an elementary education, peaks at 46% among those with a secondary education, and then drops to 42% among those with a higher education. Women in the highest wealth quintile are twice as likely as those in the lowest quintile to use a method of contraception (46% versus 23%).

Table 6 also indicates that sexually active unmarried women are half as likely to use a method of contraception as currently married women. Eighteen percent of sexually active unmarried women use a method of contraception, with 16% using a modern method. The most popular methods among these women are implants (6%) and male condoms (4%). Eleven percent of sexually active unmarried women in urban areas use condoms, as compared with only 3% of their rural counterparts.

3.7 NEED AND DEMAND FOR FAMILY PLANNING

The proportion of women who want to stop childbearing or who want to space their next birth is a crude measure of the extent of the need for family planning, given that not all of these women are exposed to the risk of pregnancy and some may already be using contraception. This section discusses a more refined extent of need and the potential demand for family planning services. Women who want to postpone their next birth for 2 or more years, or who want to stop childbearing altogether but are not using a contraceptive method, are said to have an unmet need for family planning. Pregnant women are considered to have an unmet need for spacing or limiting if their pregnancy was mistimed or unwanted, respectively. Similarly, amenorrhoeic women are categorised as having an unmet need if their last birth was mistimed or unwanted. Women who are currently using a family planning method are said to have a met need for family planning. Total demand for family planning services comprises those who fall in the met need and unmet need categories.

Table 7 presents data on unmet need, met need, and total demand for family planning among currently married women. These indicators help evaluate the extent to which family planning programmes in Papua New Guinea meet the demand for services. Twenty-six percent of currently married women have an unmet need for family planning services. Thirty-seven percent of married women are currently using a contraceptive method. Therefore, 63% of currently married women have a demand for family planning. At present, 59% of the potential demand for family planning is being met. Thus, if all married women who said they want to space or limit their children were to use family planning methods, the CPR would increase from 37% to 63%.
Table 7: Need and demand for family planning among currently married women and sexually active unmarried women

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>Met need for family planning (currently using)</th>
<th>Total demand for family planning</th>
<th>Percentage of demand satisfied</th>
<th>Currently Married Women</th>
<th>Sexually Active Unmarried Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unmet need for family planning</td>
<td>All methods</td>
<td>Modern methods</td>
<td>Number of women</td>
<td>All methods</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-19</td>
<td>32.2</td>
<td>18.4</td>
<td>16.5</td>
<td>50.6</td>
<td>403</td>
</tr>
<tr>
<td>20-24</td>
<td>33.6</td>
<td>29.7</td>
<td>24.9</td>
<td>63.2</td>
<td>1,594</td>
</tr>
<tr>
<td>25-29</td>
<td>26.4</td>
<td>36.9</td>
<td>31.5</td>
<td>63.3</td>
<td>2,110</td>
</tr>
<tr>
<td>30-34</td>
<td>25.1</td>
<td>42.2</td>
<td>34.3</td>
<td>67.3</td>
<td>1,878</td>
</tr>
<tr>
<td>35-39</td>
<td>25.2</td>
<td>42.3</td>
<td>35.6</td>
<td>67.4</td>
<td>1,764</td>
</tr>
<tr>
<td>40-44</td>
<td>24.0</td>
<td>38.5</td>
<td>31.5</td>
<td>62.5</td>
<td>1,273</td>
</tr>
<tr>
<td>45-49</td>
<td>15.1</td>
<td>32.7</td>
<td>25.6</td>
<td>47.9</td>
<td>1,029</td>
</tr>
<tr>
<td>Residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>21.3</td>
<td>50.2</td>
<td>41.5</td>
<td>71.5</td>
<td>1,200</td>
</tr>
<tr>
<td>Rural</td>
<td>26.5</td>
<td>34.9</td>
<td>29.0</td>
<td>61.4</td>
<td>8,852</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern</td>
<td>24.3</td>
<td>48.9</td>
<td>41.1</td>
<td>73.2</td>
<td>1,867</td>
</tr>
<tr>
<td>Highlands</td>
<td>23.9</td>
<td>27.5</td>
<td>25.0</td>
<td>51.5</td>
<td>4,189</td>
</tr>
<tr>
<td>Momase</td>
<td>29.9</td>
<td>37.3</td>
<td>31.6</td>
<td>67.2</td>
<td>2,630</td>
</tr>
<tr>
<td>Islands</td>
<td>26.0</td>
<td>47.2</td>
<td>30.7</td>
<td>73.2</td>
<td>1,366</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No education</td>
<td>26.9</td>
<td>24.2</td>
<td>19.5</td>
<td>51.1</td>
<td>2,808</td>
</tr>
<tr>
<td>Elementary</td>
<td>24.3</td>
<td>35.5</td>
<td>31.1</td>
<td>59.6</td>
<td>465</td>
</tr>
<tr>
<td>Primary</td>
<td>27.0</td>
<td>40.2</td>
<td>34.2</td>
<td>67.2</td>
<td>4,381</td>
</tr>
<tr>
<td>Secondary</td>
<td>22.5</td>
<td>45.9</td>
<td>37.5</td>
<td>68.4</td>
<td>2,021</td>
</tr>
<tr>
<td>Higher</td>
<td>24.6</td>
<td>41.6</td>
<td>30.6</td>
<td>66.2</td>
<td>377</td>
</tr>
<tr>
<td>Wealth quintile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest</td>
<td>32.0</td>
<td>23.2</td>
<td>18.5</td>
<td>55.3</td>
<td>1,933</td>
</tr>
<tr>
<td>Second</td>
<td>28.6</td>
<td>31.2</td>
<td>26.4</td>
<td>59.6</td>
<td>1,946</td>
</tr>
<tr>
<td>Middle</td>
<td>25.3</td>
<td>36.4</td>
<td>30.0</td>
<td>61.7</td>
<td>2,021</td>
</tr>
<tr>
<td>Fourth</td>
<td>23.9</td>
<td>45.2</td>
<td>38.0</td>
<td>69.1</td>
<td>2,042</td>
</tr>
<tr>
<td>Highest</td>
<td>20.1</td>
<td>46.3</td>
<td>38.4</td>
<td>66.4</td>
<td>2,110</td>
</tr>
<tr>
<td>Total</td>
<td>25.9</td>
<td>36.7</td>
<td>30.5</td>
<td>62.6</td>
<td>10,052</td>
</tr>
</tbody>
</table>

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al. 2012.
1 Modern methods include female sterilisation, male sterilisation, pill, IUD/loop, injectables, implants, male condom, female condom, and other modern methods.
2 Total demand is the sum of unmet need and met need.
3 Percentage of demand satisfied is met need divided by total demand.
4 Women who have had sexual intercourse within 30 days preceding the survey

Unmet need for family planning is highest in the Momase region (30%). Unmet need for family planning among women decreases with increasing wealth, from 32% among women in the lowest wealth quintile to 20% among those in the highest quintile.

### 3.8 Early Childhood Mortality

Infant and child mortality rates are basic indicators of a country’s socioeconomic situation and quality of life (United Nations Development Program [UNDP] 2007). Estimates of child mortality are based on information collected in the birth history section of the Woman’s Questionnaire, which includes questions about aggregate childbearing experience (that is, the number of sons and daughters who live with their mother, the number who live elsewhere, and the number who have died). Table 8 presents estimates for three successive 5-year periods prior to the 2016-18 PNG DHS. The rates are estimated directly from the information in the birth history on children’s birth date, survivorship status, and age at death for children who died. This information is used to directly estimate the following five mortality rates:
Neonatal mortality: the probability of dying within the first month of life

Postneonatal mortality: the difference between infant and neonatal mortality

Infant mortality: the probability of dying before the first birthday

Child mortality: the probability of dying between the first and the fifth birthday

Under-5 mortality: the probability of dying between birth and the fifth birthday

All rates are expressed per 1,000 live births with the exception of child mortality, which is expressed per 1,000 children surviving to age 12 months.

As shown in Table 8, during the 5 years immediately preceding the survey, the infant mortality rate was 33 deaths per 1,000 live births. The child mortality rate was 16 deaths per 1,000 children surviving to age 12 months, while the overall under-5 mortality rate was 49 deaths per 1,000 live births. Sixty-seven percent of all deaths among children under age 5 in Papua New Guinea take place before a child’s first birthday, with 41% occurring during the first month of life. Child mortality accounts for 33% of all under-5 deaths.

### Table 8: Early childhood mortality rates

<table>
<thead>
<tr>
<th>Years preceding the survey</th>
<th>Neonatal mortality (NN)</th>
<th>Postneonatal mortality (PNN)</th>
<th>Infant mortality (1q0)</th>
<th>Child mortality (4q1)</th>
<th>Under-5 mortality (5q0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>20</td>
<td>13</td>
<td>33</td>
<td>16</td>
<td>49</td>
</tr>
<tr>
<td>5-9</td>
<td>27</td>
<td>15</td>
<td>42</td>
<td>13</td>
<td>55</td>
</tr>
<tr>
<td>10-14</td>
<td>26</td>
<td>16</td>
<td>42</td>
<td>18</td>
<td>59</td>
</tr>
</tbody>
</table>

1 Computed as the difference between the infant and neonatal mortality rates

### 3.9 Maternal Care

Proper care during pregnancy and delivery is important for the health of both the mother and the baby. In the 2016-18 PNG DHS, women who had given birth in the 5 years preceding the survey were asked a number of questions about maternal care. Mothers were asked whether they had obtained antenatal care during the pregnancy for their most recent live birth in the 5 years preceding the survey and whether they had received tetanus toxoid injections while pregnant. For each live birth over the same period, mothers were also asked what type of assistance they received at the time of delivery. Finally, women who had a live birth in the 2 years before the survey were asked if they received a postnatal checkup within 2 days of delivery. Table 9 summarises information on the coverage of these maternal health services.

#### 3.9.1 Antenatal Care

Antenatal care (ANC) from a skilled provider is important to monitor pregnancy and reduce morbidity and mortality risks for the mother and child during pregnancy, at delivery, and during the postnatal period (42 days after delivery). The 2016-18 PNG DHS results show that 76% of women who gave birth in the 5 years preceding the survey received antenatal care from a skilled provider at least once for their last birth. Forty-nine percent of women had four or more ANC visits.

Urban women were more likely than rural women to have received ANC from a skilled provider (89% and 75%, respectively) and to have had four or more ANC visits (63% and 47%, respectively). Women in the Islands and Southern regions are more likely to receive antenatal care from a skilled provider (89% and 83%, respectively) and to have four or more ANC visits (63% and 58%, respectively) than women in other regions. Women who have more education are more likely than those who have less education to receive ANC from a skilled provider. For instance, 54% of women with no education received ANC from a skilled...
provider, as compared with 98% of women with a higher education. The proportion of women who receive ANC from a skilled provider increases steadily with increasing wealth.

### Table 9. Maternal care indicators according to background characteristics

Among women age 15-49 who had a live birth in the 5 years preceding the survey, percentage who received antenatal care from a skilled provider for the most recent live birth, percentage with four or more ANC visits for the most recent live birth, and percentage whose most recent live birth was protected against neonatal tetanus; among all live births in the 5 years before the survey, percentage delivered by a skilled provider and percentage delivered in a health facility; and among women age 15-49 who had a live birth in the 2 years preceding the survey, percentage who received a postnatal check during the first 2 days after giving birth, according to background characteristics, PNG DHS 2016-18

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>Women who had a live birth in the 5 years preceding the survey</th>
<th>Live births in the 5 years preceding the survey</th>
<th>Women who had a live birth in the 2 years preceding the survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage receiving antenatal care from a skilled provider&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Percentage with 4+ ANC visits</td>
<td>Percentage whose most recent live birth was protected against neonatal tetanus&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Mother’s age at birth</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;20</td>
<td>81.4</td>
<td>54.3</td>
<td>39.6</td>
</tr>
<tr>
<td>20-34</td>
<td>77.1</td>
<td>50.0</td>
<td>38.5</td>
</tr>
<tr>
<td>35-49</td>
<td>69.1</td>
<td>42.1</td>
<td>35.1</td>
</tr>
<tr>
<td><strong>Residence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>88.6</td>
<td>62.9</td>
<td>50.1</td>
</tr>
<tr>
<td>Rural</td>
<td>74.5</td>
<td>47.2</td>
<td>36.4</td>
</tr>
<tr>
<td><strong>Region</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern</td>
<td>83.3</td>
<td>57.6</td>
<td>40.4</td>
</tr>
<tr>
<td>Highlands</td>
<td>73.3</td>
<td>45.8</td>
<td>34.0</td>
</tr>
<tr>
<td>Momose</td>
<td>68.2</td>
<td>40.0</td>
<td>38.0</td>
</tr>
<tr>
<td>Islands</td>
<td>88.7</td>
<td>63.0</td>
<td>45.3</td>
</tr>
<tr>
<td><strong>Mother’s education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No education</td>
<td>53.7</td>
<td>28.6</td>
<td>21.4</td>
</tr>
<tr>
<td>Elementary</td>
<td>74.3</td>
<td>48.7</td>
<td>28.8</td>
</tr>
<tr>
<td>Primary</td>
<td>79.1</td>
<td>50.8</td>
<td>40.5</td>
</tr>
<tr>
<td>Secondary</td>
<td>82.8</td>
<td>67.1</td>
<td>50.2</td>
</tr>
<tr>
<td>Higher</td>
<td>98.1</td>
<td>62.4</td>
<td>60.1</td>
</tr>
<tr>
<td><strong>Wealth quintile</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest</td>
<td>56.0</td>
<td>31.4</td>
<td>24.6</td>
</tr>
<tr>
<td>Second</td>
<td>68.7</td>
<td>42.9</td>
<td>30.0</td>
</tr>
<tr>
<td>Middle</td>
<td>78.4</td>
<td>51.1</td>
<td>36.8</td>
</tr>
<tr>
<td>Fourth</td>
<td>84.7</td>
<td>55.6</td>
<td>46.7</td>
</tr>
<tr>
<td>Highest</td>
<td>94.5</td>
<td>65.6</td>
<td>53.1</td>
</tr>
<tr>
<td>Total</td>
<td>76.1</td>
<td>49.0</td>
<td>38.0</td>
</tr>
</tbody>
</table>

Note: If more than one source of assistance was mentioned, only the provider with the highest qualifications is considered in this tabulation.

<sup>1</sup> Skilled provider includes doctor, midwife, nurse, or trained village health volunteer.

<sup>2</sup> Includes mothers with two injections during the pregnancy of their most recent live birth, or two or more injections (the last within 3 years of the most recent live birth), or three or more injections (the last within 5 years of the most recent live birth), or four or more injections (the last within 10 years of the most recent live birth), or five or more injections at any time prior to the last live birth

<sup>3</sup> Includes women who received a check from a doctor, midwife, nurse, trained village health volunteer, or village birth attendant

### 3.9.2 Tetanus Toxoid

Tetanus toxoid injections are given during pregnancy to prevent neonatal tetanus, a major cause of early infant death in many developing countries, often due to failure to observe hygienic procedures during delivery. Table 9 shows that 38% of women with a birth in the 5 years before the survey received sufficient doses of tetanus toxoid to protect their last birth against neonatal tetanus. The percentage of women whose last birth was protected from tetanus varies with level of education and wealth. Women with no education and those in the lowest wealth quintile are substantially less likely to have had their last birth protected from tetanus. For instance, 21% of women with no education had their last birth protected from tetanus, as compared with 60% of women with a higher education.
3.9.3 Delivery Care

Access to proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that may lead to death or serious illness for the mother and/or baby (Van Lerberghe and De Brouwere 2001; WHO 2006). The survey data show that, in Papua New Guinea, 56% of the births in the 5 years preceding the survey were delivered by a skilled provider and 55% were delivered in a health facility (Table 9).

Births in urban areas are far more likely to benefit from skilled delivery care than those in rural areas. Eighty-seven percent of births to urban mothers were assisted by a skilled provider and 85% were delivered in a health facility, as compared with 53% and 51%, respectively, of births to rural women (Figure 2). Seventy-four percent of births in the Islands region were assisted by a skilled provider, compared with 45% of those in the Momase region.

Mothers’ educational status correlates highly with whether their delivery is assisted by a skilled provider and whether the birth is delivered in a health facility. For example, 32% of births to mothers with no education were assisted by a skilled provider and 31% were delivered in a health facility, as compared with 95% each of births to mothers with a higher education. A similar relationship is observed with wealth.

3.9.4 Postnatal Care for the Mother

A large proportion of maternal and neonatal deaths occur during the first 48 hours after delivery. Thus, prompt postnatal care (PNC) for both the mother and the child is important to treat any complications arising from the delivery, as well as to provide the mother with important information on how to care for herself and her child. Safe motherhood programmes recommend that all women receive a check of their health within 2 days after delivery.

To assess the extent of postnatal care utilisation, respondents were asked, for their last birth in the 2 years preceding the survey, whether they had received a checkup after delivery and the timing of the first checkup. As shown in Table 9, 46% of women reported having received a PNC checkup in the first 2 days after birth.

The proportion of women receiving a postnatal checkup within 2 days of delivery is higher in urban than rural areas (72% and 42%, respectively) and increases with increasing education and wealth.

3.10 Child Health and Nutrition

The 2016-18 PNG DHS collected data on a number of key child health indicators, including vaccinations of young children, nutritional status as assessed by anthropometry, infant feeding practices, and treatment practices when a child is ill.

3.10.1 Vaccination of Children

Universal immunisation of children against six common vaccine-preventable diseases, namely tuberculosis, diphtheria, whooping cough (pertussis), tetanus, polio, and measles, is crucial to reducing infant and child mortality. The vaccine given in Papua New Guinea against diphtheria, whooping cough, and tetanus (DPT) also protects against hepatitis B (HepB) and Haemophilus influenzae type b (Hib) and is called the DPT-HepB-Hib or pentavalent vaccine. Pentavalent was introduced in Papua New Guinea in 2008. The pneumococcal conjugate vaccine (PCV-13) protects against Streptococcus pneumoniae bacteria,
which cause severe pneumonia, meningitis, and other illnesses; this vaccine was introduced in 2014 (Papua New Guinea Ministry of Health 2015). On August 12, 2015, Papua New Guinea introduced one dose of inactivated poliomyelitis vaccine (IPV) at 14 weeks of age into its national routine immunisation schedule, which coincided with the launch of a nationwide measles and rubella (MR) vaccine. The IPV does not replace the oral polio vaccine but is used with that vaccine to strengthen a child’s immune system and protect against polio.

Papua New Guinea has established a schedule for the administration of all basic childhood vaccines based on the World Health Organization’s guidelines. Historically, an important measure of vaccination coverage has been the proportion of children age 12-23 months who have received all “basic” vaccinations. A child is considered to have received all basic vaccinations if he or she has received a bacille Calmette-Guérin (BCG) vaccination against tuberculosis; three doses of pentavalent (DPT-HepB-Hib) to prevent diphtheria, pertussis, and tetanus; at least three doses of polio vaccine; and one dose of measles vaccine. These vaccinations should be received during the first year of life. BCG should be given shortly after birth or at first clinical contact. Polio vaccine should be given at approximately age 6 weeks, 10 weeks, and 14 weeks. Pentavalent (DPT-HepB-Hib) vaccine should also be given at approximately age 6, 10, and 14 weeks. In Papua New Guinea, the measles and rubella vaccine should be given at or soon after the child reaches age 6 months, with another dose at 9 months.

A second, more critical measure of vaccination coverage is the proportion of children age 12-23 months and 24-35 months who have received all age-appropriate vaccinations. A child age 12-23 months is considered to have received all age-appropriate vaccinations if the child has received all basic vaccinations along with a birth dose of hepatitis B, one dose of inactivated polio vaccine, and three doses of pneumococcal vaccine (also given at age 6, 10, and 14 weeks). Similarly, a child who is age 24-35 months has received all age-appropriate vaccinations if the child has received a third dose of measles given at 18 months in addition to all of the age-appropriate vaccinations relevant for a child age 12-23 months. However, in the case of the PNG DHS, the third dose of measles and rubella had not yet been rolled out when the fieldwork started in 2016. Therefore, the survey was not able to capture the third dose of measles and rubella vaccine at 18 months, preventing the presentation of results on all age-appropriate vaccinations for children in the 24- to 35-month age group.

In the 2016-18 PNG DHS, information on vaccination coverage was obtained in two ways—from health cards and from mothers’ verbal reports. All mothers were asked to show the interviewer the cards on which vaccination dates were recorded for all of their children. If the card was available, the interviewer then recorded from the card the dates of each vaccination received. In cases in which the card indicated the child had not received all basic vaccinations, the mother was asked whether the child had received other vaccinations that were not recorded on the card, and, if so, they too were recorded. If there was no card, or if the mother was unable to show the card to the interviewer, the child’s vaccination information was based on the mother’s recall. The mother was asked to recall whether the child had received the BCG, hepatitis B (birth dose), polio, pentavalent, pneumococcal, inactivated polio, and measles and rubella vaccines. If she indicated that the child had received the polio, pentavalent, pneumococcal, or measles and rubella vaccine, she was asked about the number of doses that the child received. The results presented here are based on the vaccination card and, for those children without a card, information provided by the mother. Cards were seen for 30% of children age 12-23 months (data not shown).

Table 10 pertains to children age 12-23 months, the age by which children should have received all basic vaccinations. Overall, 35% of children have received all basic vaccinations, and 20% have received all age-appropriate vaccinations. Sixty-nine percent of children have received BCG, 64% have received the first dose of pentavalent, and 69% have received polio 1. Forty-two percent of children have received the third doses of the pentavalent and polio vaccines. Fifty-nine percent of children have received measles and rubella 1 (at 6 months), while 40% have received measles and rubella 2 (at 9 months). Twenty-four percent of children in Papua New Guinea have not received any vaccinations.
### Table 10 Vaccinations by background characteristics

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother’s report), percentage with all basic vaccinations, and percentage with all age-appropriate vaccinations, according to background characteristics, PNG DHS 2016-18

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>BCG</th>
<th>HepB (birth dose)</th>
<th>DPT-HepB-Hib</th>
<th>Polio</th>
<th>Pneumococcal</th>
<th>Measles and rubella</th>
<th>All basic vaccinations</th>
<th>All age-appropriate vaccinations</th>
<th>No vaccinations</th>
<th>Number of children</th>
</tr>
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<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>57.4</td>
<td>62.9</td>
<td>50.7</td>
<td>39.2</td>
<td>69.1</td>
<td>52.6</td>
<td>40.0</td>
<td>40.0</td>
<td>59.2</td>
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<tr>
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<td>57.6</td>
<td>65.0</td>
<td>54.0</td>
<td>44.6</td>
<td>69.8</td>
<td>57.9</td>
<td>44.8</td>
<td>38.1</td>
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<td>1</td>
<td>72.7</td>
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<td>62.6</td>
<td>52.9</td>
<td>44.0</td>
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<td>53.2</td>
<td>43.6</td>
<td>44.2</td>
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<tr>
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<td>55.0</td>
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<td>41.2</td>
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<td>60.3</td>
<td>48.6</td>
<td>39.9</td>
<td>66.9</td>
<td>53.9</td>
<td>40.0</td>
<td>34.8</td>
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<td>82.4</td>
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<td>86.0</td>
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<td>59.7</td>
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<td>37.3</td>
<td>36.6</td>
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<td>37.6</td>
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<td>75.4</td>
<td>64.5</td>
<td>52.0</td>
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<td>67.0</td>
<td>53.9</td>
<td>50.2</td>
<td>71.8</td>
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<td>52.8</td>
<td>54.6</td>
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<td>61.1</td>
<td>47.3</td>
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<td>49.9</td>
</tr>
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<td>58.5</td>
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<td>62.9</td>
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<td>73.2</td>
<td>56.1</td>
<td>39.6</td>
<td>21.6</td>
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<td>70.1</td>
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<td>72.9</td>
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</tr>
<tr>
<td>Lowest</td>
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<td>39.3</td>
<td>27.9</td>
<td>20.4</td>
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<td>35.0</td>
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<td>30.4</td>
<td>31.6</td>
<td>48.9</td>
</tr>
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<td>62.0</td>
<td>66.2</td>
<td>57.1</td>
<td>45.6</td>
<td>70.3</td>
<td>59.6</td>
<td>46.9</td>
<td>40.1</td>
<td>57.1</td>
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<td>71.6</td>
<td>59.3</td>
<td>48.5</td>
<td>74.9</td>
<td>60.4</td>
<td>49.5</td>
<td>45.3</td>
<td>64.1</td>
</tr>
<tr>
<td>Highest</td>
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<td>86.6</td>
<td>74.1</td>
<td>61.6</td>
<td>89.5</td>
<td>76.7</td>
<td>62.3</td>
<td>58.1</td>
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</tr>
<tr>
<td>Total</td>
<td>69.4</td>
<td>57.5</td>
<td>63.9</td>
<td>52.2</td>
<td>41.7</td>
<td>69.0</td>
<td>55.1</td>
<td>42.2</td>
<td>39.1</td>
<td>58.3</td>
</tr>
</tbody>
</table>

Note: Children are considered to have received the vaccine if it was either written on the child’s vaccination card or reported by the mother. For children whose vaccination information is based on the mother’s report, date of vaccination is not collected. The proportions of vaccinations given during the first and second years of life are assumed to be the same as for children with a written record of vaccination. Total includes 27 cases with missing information on vaccination card seen.

BCG = Bacillus Calmette-Guérin
DPT = Diphtheria-pertussis-tetanus
HepB = Hepatitis B
Hib = Haemophilus influenzae type b
IPV = Inactivated polio vaccine

1 For children whose vaccination information is based on the mother’s report, children reported to have received HepB (birth dose) received the vaccine within 24 hours after birth. For children whose vaccination information is based on the written record of vaccination, children are considered to have received hepatitis B (birth dose) if this vaccine is recorded on their card, regardless of when the dose was administered.

2 BCG, three doses of DPT-HepB-Hib, three doses of oral polio vaccine, one dose of measles and rubella vaccine, three doses of pneumococcal vaccine, and two doses of measles and rubella vaccine.
Basic vaccination coverage differs by residence, with urban children more likely to receive all basic vaccinations than rural children (49% versus 33%). A similar pattern is seen for all age-appropriate vaccinations (27% and 19%, respectively). Children in the Highlands region (28%) are less likely to receive all basic vaccinations than children in the Islands (47%) and Southern (46%) regions. Vaccination coverage improves with increasing mother’s education and wealth.

3.10.2 Childhood Acute Respiratory Infection, Fever, and Diarrhoea

Acute respiratory infection (ARI), fever, and dehydration from diarrhoea are important contributing causes of childhood morbidity and mortality in developing countries (WHO 2003). Prompt medical attention when a child has the symptoms of these illnesses is, therefore, crucial in reducing child deaths. In the 2016-18 PNG DHS, for each child under age 5, mothers were asked if the child had experienced a cough accompanied by short, rapid breathing or difficulty in breathing as a result of a chest-related problem (symptoms of ARI); a fever; or an episode of diarrhoea in the 2 weeks preceding the survey. Respondents were also asked if treatment was sought when the child was ill. Overall, 3% of children under age 5 showed symptoms of ARI, 18% had a fever, and 14% experienced diarrhoea in the 2 weeks preceding the survey (data not shown). It should be noted that the morbidity data collected are subjective because they are based on a mother’s perception of illnesses without validation by medical personnel.

Table 11 shows that treatment from a health facility or provider was sought for 63% of children with ARI symptoms and 50% of those with a fever. Treatment was sought from a health facility or health provider for 38% of children with diarrhoea. Thirty percent of children with diarrhoea received a rehydration solution from an oral rehydration salt (ORS) packet; 7% of children with diarrhoea were given zinc supplements, and 5% received both ORS and zinc supplements.
Table 11 Treatment for acute respiratory infection (ARI) symptoms, fever, and diarrhoea according to background characteristics

Among children under age 5 who had symptoms of acute respiratory infection (ARI) or had a fever in the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, and among children under age 5 who had diarrhoea during the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, percentage given a fluid made from oral rehydration salt (ORS) packets, percentage given zinc, and percentage given ORS and zinc, according to background characteristics, PNG DHS 2016-18

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>Children with symptoms of ARI</th>
<th>Children with fever</th>
<th>Children with diarrhoea</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage for whom advice or treatment was sought</td>
<td>Number of children</td>
<td>Percentage for whom advice or treatment was sought</td>
</tr>
<tr>
<td><strong>Age in months</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>&lt;6</td>
<td>(67.9)</td>
<td>27</td>
<td>49.2</td>
</tr>
<tr>
<td>6-11</td>
<td>(71.2)</td>
<td>49</td>
<td>53.0</td>
</tr>
<tr>
<td>12-23</td>
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<td>69</td>
<td>52.5</td>
</tr>
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<td>24-35</td>
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<td>43</td>
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</tr>
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<td>46</td>
<td>48.1</td>
</tr>
<tr>
<td>48-59</td>
<td>(70.4)</td>
<td>25</td>
<td>51.5</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
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</tr>
<tr>
<td>Male</td>
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<td>122</td>
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<tr>
<td>Female</td>
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<td><strong>Residence</strong></td>
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<tr>
<td>Rural</td>
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</tr>
<tr>
<td>Southern</td>
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<td><strong>Wealth quintile</strong></td>
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<td>Lowest</td>
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<td>49.5</td>
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</table>

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

1 Symptoms of ARI include a cough accompanied by short, rapid breathing that is chest-related and/or difficult breathing that is chest-related.

2 Excludes advice or treatment from a traditional practitioner.
3.10.3 Infant and Young Child Feeding Practices

Breastfeeding is sufficient and beneficial for infant nutrition in the first 6 months of life. Breastfeeding immediately after birth also helps the uterus contract, hence reducing the mother’s postpartum blood loss. Giving any other foods and water (in addition to breast milk) before the child is age 6 months is discouraged because it may inhibit breastfeeding and expose the infant to illness. Infants older than age 6 months need other food and drink while they continue to breastfeed until age 2 or older; breast milk remains an important source of energy, protein, and other nutrients such as vitamin A and iron. The food given should include a variety of options such as peeled, cooked, and mashed vegetables; grains; fruit; some oil; and also meat, eggs, chicken, and dairy products to provide adequate nourishment (Pan American Health Organization 2002).

The 2016-18 PNG DHS collected data on infant and young child feeding (IYCF) practices for all children born in the 2 years preceding the survey. Table 12 shows breastfeeding practices by child’s age. As recommended that children under age 6 months be exclusively breastfed; the results showed that 62% of infants in this age group are exclusively breastfed. In addition to breast milk, 5% of these young children consume plain water, 2% consume non-milk liquids, 1% consume other milk, and 24% consume complementary foods. Eight percent of infants under age 6 months are fed using a bottle with a nipple, a practice that is discouraged because of the risk of illness to the child. Sixty-eight percent of children age 6-8 months receive timely complementary foods.
The minimum acceptable diet indicator is used to assess the proportion of children age 6-23 months who meet minimum standards with respect to IYCF practices. Specifically, children age 6-23 months who have a minimum acceptable diet meet all three IYCF criteria below:

- Breastfeeding, or not breastfeeding and receiving two or more feedings of commercial infant formula; fresh, tinned, or powdered animal milk; or yogurt.

- Fed with foods from five or more of the following groups: (a) breast milk; (b) grains, roots, and tubers, including porridge and fortified baby food from grains; (c) legumes and nuts; (d) dairy products (milk, yogurt, cheese); (e) eggs; (f) meat, poultry, fish, and shellfish (and organ meats); (g) vitamin A-rich fruits and vegetables (and red palm oil); and (h) other fruits and vegetables.

- Fed the minimum recommended number of times per day, according to their age and breastfeeding status:
  - For breastfed children, minimum meal frequency is receiving solid, semisolid, or soft food at least twice a day (for infants age 6-8 months) or at least three times a day (for children age 9-23 months).
  - For nonbreastfed children age 6-23 months, minimum meal frequency is receiving solid, semisolid, or soft food or milk feeds at least four times a day. At least one of the feeds must be a solid, semisolid, or soft food.
Figure 3 shows the percentage of children being fed the minimum acceptable diet, by age. Among children age 6-23 months, only 17% are fed in accordance with the criteria for a minimum acceptable diet.

**3.11 OWNERSHIP AND USE OF MOSQUITO NETS**

### 3.11.1 Ownership of Mosquito Nets

The use of insecticide-treated mosquito nets (ITNs) is a primary health intervention designed to reduce malaria transmission in Papua New Guinea. An ITN is defined as a factory-treated net that does not require any further treatment. In previous DHS surveys, the definition of an ITN included nets that had been soaked with insecticides within the past 12 months. In the most recent questionnaires, the DHS Program dropped questions on retreatment of nets. This was done because mosquito nets that require annual retreatment and the products used for retreatment are no longer distributed, and the distinction between ITNs and long-lasting insecticide-treated nets (LLINs) is no longer meaningful. What are defined as ITNs in the 2016-18 PNG DHS were previously known as LLINs.

All households in the 2016-18 PNG DHS were asked if they owned mosquito nets and, if so, what type and how many. Table 13 presents the percentage of households with at least one ITN, the average number of nets per household, and the percentage of households with at least one ITN for each two persons who stayed in the household the previous night, by background characteristics. Sixty-nine percent of households have at least one ITN. On average, there are about two ITNs per household.

**Table 13: Household possession of insecticide-treated nets according to background characteristics**

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>Percentage of households with at least one ITN</th>
<th>Average number of ITNs per household</th>
<th>Number of households</th>
<th>Percentage of households with at least one ITN for every two persons who stayed in the household last night</th>
<th>Number of households with at least one person who stayed in the household last night</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>71.7</td>
<td>2.2</td>
<td>1,521</td>
<td>42.5</td>
<td>1,517</td>
</tr>
<tr>
<td>Rural</td>
<td>68.3</td>
<td>1.9</td>
<td>14,500</td>
<td>45.6</td>
<td>14,416</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern</td>
<td>84.4</td>
<td>2.6</td>
<td>2,681</td>
<td>55.3</td>
<td>2,670</td>
</tr>
<tr>
<td>Highlands</td>
<td>48.4</td>
<td>1.1</td>
<td>6,916</td>
<td>29.4</td>
<td>6,879</td>
</tr>
<tr>
<td>Momase</td>
<td>84.3</td>
<td>2.6</td>
<td>4,075</td>
<td>59.4</td>
<td>4,040</td>
</tr>
<tr>
<td>Islands</td>
<td>83.2</td>
<td>2.3</td>
<td>2,349</td>
<td>56.1</td>
<td>2,344</td>
</tr>
<tr>
<td>Wealth quintile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest</td>
<td>50.3</td>
<td>1.2</td>
<td>3,421</td>
<td>31.1</td>
<td>3,402</td>
</tr>
<tr>
<td>Second</td>
<td>65.9</td>
<td>1.8</td>
<td>3,362</td>
<td>43.9</td>
<td>3,351</td>
</tr>
<tr>
<td>Middle</td>
<td>76.8</td>
<td>2.1</td>
<td>3,262</td>
<td>53.2</td>
<td>3,273</td>
</tr>
<tr>
<td>Fourth</td>
<td>82.8</td>
<td>2.5</td>
<td>3,129</td>
<td>56.3</td>
<td>3,124</td>
</tr>
<tr>
<td>Highest</td>
<td>68.8</td>
<td>2.1</td>
<td>2,826</td>
<td>42.7</td>
<td>2,783</td>
</tr>
<tr>
<td>Total</td>
<td>68.6</td>
<td>1.9</td>
<td>16,021</td>
<td>45.3</td>
<td>15,933</td>
</tr>
</tbody>
</table>

1 An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment.

2 Although the 2016-18 PNG DHS included a question on nets being soaked with insecticides within the past 12 months, these nets are not considered ITNs.
Similar proportions of rural and urban households own at least one ITN (68% and 72%, respectively). Households in the Highlands region less often reported having an ITN than other households, and they have only one ITN per household on average. Households in the lowest wealth quintile less often reported having an ITN than those in the other quintiles.

Forty-five percent of the households in Papua New Guinea have at least one ITN for every two persons who stayed in the household the night before the survey. The percentage of households with at least one ITN for every two persons who stayed in the household the night before the survey is slightly higher in rural areas (46%) than in urban areas (43%). Households in the Momase region are more likely than those in other regions to have at least one ITN for every two persons who stayed in the household the night before the survey.

Figure 4 shows the percentage of the de facto population with access to an ITN. Overall, 58% of the household population has access to an ITN, which means that all de facto household members could sleep under an ITN if each ITN in the household were used by up to two people. There is only minimal variation by residence in access to an ITN. The proportion of the household population with access to an ITN ranges from a low of 38% in the Highlands region to a high of 74% in the Momase region. De facto household members in the lowest wealth quintile are least likely to have access to an ITN.

### 3.11.2 Use of ITNs by Children and Pregnant Women

Community-level protection against malaria helps reduce the spread of the disease and offers an additional layer of protection against malaria for those who are most vulnerable: children under age 5 and pregnant women. This section describes use of mosquito nets among children and pregnant women.

Table 14 shows that 52% of children under age 5 slept under an ITN the night before the survey. Seventy-one percent of children in the Momase region slept under an ITN, as compared with only 32% of those in the Highlands region. Among households with at least one ITN, almost three quarters of children (72%) slept under an ITN the night before the survey.
Table 14 Use of insecticide-treated nets by children and pregnant women according to background characteristics

Percentage of children under age 5 who, the night before the survey, slept under an insecticide-treated net (ITN); among children under age 5 in households with at least one ITN, percentage who slept under an ITN the night before the survey; percentage of pregnant women age 15–49 who, the night before the survey, slept under an ITN; and among pregnant women age 15–49 in households with at least one ITN, percentage who slept under an ITN the night before the survey, according to background characteristics, PNG DHS 2016-18

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>Percentage who slept under an ITN1 last night</th>
<th>Number of children</th>
<th>Percentage who slept under an ITN1 last night</th>
<th>Number of children</th>
<th>Percentage who slept under an ITN1 last night</th>
<th>Number of pregnant women</th>
<th>Percentage who slept under an ITN1 last night</th>
<th>Number of pregnant women</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Residence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>54.0</td>
<td>1,177</td>
<td>72.2</td>
<td>881</td>
<td>55.9</td>
<td>83</td>
<td>78.2</td>
<td>59</td>
</tr>
<tr>
<td>Rural</td>
<td>51.4</td>
<td>9,902</td>
<td>71.4</td>
<td>7,128</td>
<td>48.2</td>
<td>656</td>
<td>71.5</td>
<td>443</td>
</tr>
<tr>
<td><strong>Region</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern</td>
<td>69.0</td>
<td>2,223</td>
<td>69.0</td>
<td>1,912</td>
<td>61.5</td>
<td>139</td>
<td>69.7</td>
<td>122</td>
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<tr>
<td>Highlands</td>
<td>71.2</td>
<td>3,033</td>
<td>82.5</td>
<td>2,616</td>
<td>79.8</td>
<td>170</td>
<td>91.1</td>
<td>149</td>
</tr>
<tr>
<td>Momase</td>
<td>64.8</td>
<td>1,651</td>
<td>65.4</td>
<td>1,384</td>
<td>59.9</td>
<td>124</td>
<td>68.0</td>
<td>102</td>
</tr>
<tr>
<td>Islands</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wealth quintile</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest</td>
<td>40.5</td>
<td>2,358</td>
<td>74.8</td>
<td>1,278</td>
<td>33.7</td>
<td>182</td>
<td>76.5</td>
<td>80</td>
</tr>
<tr>
<td>Second</td>
<td>51.2</td>
<td>2,276</td>
<td>71.5</td>
<td>1,631</td>
<td>52.9</td>
<td>165</td>
<td>76.2</td>
<td>115</td>
</tr>
<tr>
<td>Middle</td>
<td>62.3</td>
<td>2,250</td>
<td>77.3</td>
<td>1,813</td>
<td>57.4</td>
<td>126</td>
<td>72.2</td>
<td>100</td>
</tr>
<tr>
<td>Fourth</td>
<td>63.6</td>
<td>2,196</td>
<td>74.8</td>
<td>1,865</td>
<td>61.0</td>
<td>151</td>
<td>73.6</td>
<td>125</td>
</tr>
<tr>
<td>Highest</td>
<td>40.3</td>
<td>1,999</td>
<td>56.6</td>
<td>1,422</td>
<td>43.3</td>
<td>115</td>
<td>60.7</td>
<td>82</td>
</tr>
<tr>
<td>Total</td>
<td>51.7</td>
<td>11,079</td>
<td>71.5</td>
<td>8,009</td>
<td>49.1</td>
<td>739</td>
<td>72.3</td>
<td>502</td>
</tr>
</tbody>
</table>

Note: Table is based on children and pregnant women who stayed in the household the night before the interview.

An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment.

Table 14 also shows that 49% of pregnant women slept under an ITN the night before the survey. Among households with at least one ITN, 72% of pregnant women slept under an ITN the night before the survey. Pregnant women in households in the Momase region with at least one ITN are more likely to sleep under an ITN than those in the Highlands region (91% and 56%, respectively).

3.11.3 Intermittent Preventive Treatment of Malaria in Pregnancy

In areas of high malaria transmission, by the time an individual reaches adulthood, she or he has acquired immunity that protects against severe disease. However, pregnant women—especially those pregnant for the first time—frequently regain their susceptibility to malaria. Although malaria in pregnant women may not manifest itself as either febrile illness or severe disease, it is frequently the cause of mild to severe anaemia. In addition, malaria during pregnancy can interfere with the maternal-foetal exchange that occurs at the placenta, leading to delivery of low birth weight infants.

In the 2016-18 PNG DHS, women who had a live birth in the 5 years preceding the survey were asked if they took any sulfadoxine-pyrimethamine (SP)/Fansidar during the pregnancy leading to their most recent birth and, if so, how many times they took SP/Fansidar. Women were also asked where they obtained SP/Fansidar.

Table 15 shows that 50% of women with a live birth in the 2 years preceding the survey reported taking one or more doses of SP/Fansidar; 36% reported taking two or more doses, and 24% reported taking three or more doses. Women in urban areas are more likely to take SP/Fansidar during pregnancy than those in rural areas. The proportion of women taking SP/Fansidar during pregnancy increases with increasing wealth.
Table 15. Use of intermittent preventive treatment (IPTp) by women during pregnancy according to background characteristics

Percentage of women age 15-49 with a live birth in the 2 years preceding the survey who, during the pregnancy that resulted in the last live birth, received one or more doses of SP/Fansidar, received two or more doses of SP/Fansidar, and received three or more doses of SP/Fansidar, according to background characteristics, PNG DHS 2016-18

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>Percentage who received one or more doses of SP/Fansidar</th>
<th>Percentage who received two or more doses of SP/Fansidar</th>
<th>Percentage who received three or more doses of SP/Fansidar</th>
<th>Number of women with a live birth in the 2 years preceding the survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>63.6</td>
<td>41.8</td>
<td>27.3</td>
<td>409</td>
</tr>
<tr>
<td>Rural</td>
<td>48.5</td>
<td>35.0</td>
<td>23.0</td>
<td>3,233</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern</td>
<td>55.7</td>
<td>40.2</td>
<td>24.5</td>
<td>727</td>
</tr>
<tr>
<td>Highlands</td>
<td>44.3</td>
<td>27.2</td>
<td>16.5</td>
<td>1,382</td>
</tr>
<tr>
<td>Momase</td>
<td>45.1</td>
<td>35.2</td>
<td>26.1</td>
<td>990</td>
</tr>
<tr>
<td>Islands</td>
<td>66.8</td>
<td>52.6</td>
<td>34.9</td>
<td>543</td>
</tr>
<tr>
<td>Wealth quintile</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest</td>
<td>30.1</td>
<td>18.1</td>
<td>13.5</td>
<td>740</td>
</tr>
<tr>
<td>Second</td>
<td>40.9</td>
<td>30.8</td>
<td>19.5</td>
<td>728</td>
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<tr>
<td>Middle</td>
<td>50.1</td>
<td>37.7</td>
<td>24.6</td>
<td>772</td>
</tr>
<tr>
<td>Fourth</td>
<td>60.7</td>
<td>43.7</td>
<td>27.7</td>
<td>736</td>
</tr>
<tr>
<td>Highest</td>
<td>71.2</td>
<td>49.7</td>
<td>32.9</td>
<td>666</td>
</tr>
<tr>
<td>Total</td>
<td>50.2</td>
<td>35.7</td>
<td>23.5</td>
<td>3,642</td>
</tr>
</tbody>
</table>

3.11.4 Prevalence, Diagnosis, and Prompt Treatment of Fever among Children

In moderately to highly endemic areas of malaria, acute clinical disease is almost always confined to young children who suffer high parasite densities. If untreated, this condition can progress very rapidly to severe malaria, which can lead to death. The diagnosis of malaria is based on clinical criteria and supplemented by the detection of parasites in the blood (parasitological or confirmatory diagnosis). Fever is a major manifestation of malaria in young children, although it also accompanies other illnesses. In Papua New Guinea, artemisinin-based combination therapy (ACT) is the recommended first-line treatment for uncomplicated malaria.

In the 2016-18 PNG DHS, for each child under age 5, mothers were asked if the child had experienced an episode of fever in the 2 weeks preceding the survey and, if so, whether treatment and advice were sought. Table 16 shows the percentage of children under age 5 who had a fever in the 2 weeks preceding the survey. Also shown, among children with a fever, are the percentage for whom advice or treatment was sought, the percentage who had a drop of blood taken from a finger or heel prick (presumably for a malaria test), and, among those who took any antimalarial drug, the percentage who took any ACT.
Table 16 Prevalence, diagnosis, and prompt treatment of children with fever according to background characteristics

Percentage of children under age 5 with a fever in the 2 weeks preceding the survey; among children under age 5 with fever, percentage for whom advice or treatment was sought and percentage who had blood taken from a finger or heel; and among children under age 5 with fever who took any antimalarial drug, percentage who took any artemisinin-based combination therapy (ACT), according to background characteristics, PNG DHS 2016-18

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>Children under age 5 who took any antimalarial drug</th>
<th>Number of children</th>
<th>Percentage who took any ACT</th>
<th>Number of children</th>
<th>Percentage who had blood taken from a finger or heel for testing</th>
<th>Number of children</th>
<th>Percentage with fever in the 2 weeks preceding the survey</th>
<th>Number of children</th>
<th>Percentage for whom advice or treatment was sought</th>
<th>Number of children</th>
<th>Percentage who took any ACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>21.1</td>
<td>984</td>
<td>64.1</td>
<td>41.3</td>
<td>207</td>
<td>67.3</td>
<td>52</td>
<td>984</td>
<td>64.1</td>
<td>41.3</td>
<td>207</td>
</tr>
<tr>
<td>Rural</td>
<td>17.8</td>
<td>8,387</td>
<td>45.5</td>
<td>22.3</td>
<td>1,494</td>
<td>72.4</td>
<td>311</td>
<td>8,387</td>
<td>45.5</td>
<td>22.3</td>
<td>1,494</td>
</tr>
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<td>Region</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern</td>
<td>17.1</td>
<td>1,850</td>
<td>61.4</td>
<td>32.0</td>
<td>316</td>
<td>63.8</td>
<td>73</td>
<td>1,850</td>
<td>61.4</td>
<td>32.0</td>
<td>316</td>
</tr>
<tr>
<td>Highlands</td>
<td>15.9</td>
<td>3,564</td>
<td>39.5</td>
<td>8.4</td>
<td>565</td>
<td>63.6</td>
<td>74</td>
<td>3,564</td>
<td>39.5</td>
<td>8.4</td>
<td>565</td>
</tr>
<tr>
<td>Momase</td>
<td>21.6</td>
<td>2,578</td>
<td>45.6</td>
<td>31.4</td>
<td>556</td>
<td>76.6</td>
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<td>2,578</td>
<td>45.6</td>
<td>31.4</td>
<td>556</td>
</tr>
<tr>
<td>Islands</td>
<td>19.2</td>
<td>1,378</td>
<td>53.4</td>
<td>36.1</td>
<td>264</td>
<td>73.3</td>
<td>60</td>
<td>1,378</td>
<td>53.4</td>
<td>36.1</td>
<td>264</td>
</tr>
<tr>
<td>Wealth quintile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest</td>
<td>18.7</td>
<td>1,977</td>
<td>31.1</td>
<td>10.3</td>
<td>370</td>
<td>(74.5)</td>
<td>62</td>
<td>1,977</td>
<td>31.1</td>
<td>10.3</td>
<td>370</td>
</tr>
<tr>
<td>Second</td>
<td>17.9</td>
<td>1,918</td>
<td>42.0</td>
<td>19.8</td>
<td>344</td>
<td>78.2</td>
<td>83</td>
<td>1,918</td>
<td>42.0</td>
<td>19.8</td>
<td>344</td>
</tr>
<tr>
<td>Middle</td>
<td>17.9</td>
<td>1,931</td>
<td>44.8</td>
<td>24.9</td>
<td>346</td>
<td>73.9</td>
<td>57</td>
<td>1,931</td>
<td>44.8</td>
<td>24.9</td>
<td>346</td>
</tr>
<tr>
<td>Fourth</td>
<td>18.4</td>
<td>1,861</td>
<td>61.2</td>
<td>30.7</td>
<td>342</td>
<td>62.8</td>
<td>80</td>
<td>1,861</td>
<td>61.2</td>
<td>30.7</td>
<td>342</td>
</tr>
<tr>
<td>Highest</td>
<td>17.8</td>
<td>1,683</td>
<td>62.9</td>
<td>40.5</td>
<td>300</td>
<td>70.2</td>
<td>81</td>
<td>1,683</td>
<td>62.9</td>
<td>40.5</td>
<td>300</td>
</tr>
<tr>
<td>Total</td>
<td>18.2</td>
<td>9,371</td>
<td>47.7</td>
<td>24.6</td>
<td>1,701</td>
<td>71.7</td>
<td>363</td>
<td>9,371</td>
<td>47.7</td>
<td>24.6</td>
<td>1,701</td>
</tr>
</tbody>
</table>

Note: Figures in parentheses are based on 25-49 unweighted cases.

1 Excludes advice or treatment from a traditional practitioner and others

Eighteen percent of children under age 5 had a fever during the 2 weeks preceding the survey. Advice or treatment was sought for 48% of children with a fever, and 25% had blood taken from a finger or heel for testing. Advice or treatment for fever is more likely to be sought for children in urban areas than children in rural areas (64% and 46%, respectively). Seventy-two percent of children with a fever who took any antimalarial drug took ACT.

3.12 HIV/AIDS AWARENESS, KNOWLEDGE, AND BEHAVIOUR

3.12.1 Knowledge of HIV Prevention

The 2016-18 PNG DHS included a series of questions asked of both women and men that addressed respondents’ knowledge of HIV prevention, awareness of modes of HIV transmission, and behaviours that can prevent the spread of HIV.

Eighty-two percent of women and 90% of men have heard of AIDS (data not shown). Table 17 shows that 52% of women and 58% of men age 15-49 know that consistent use of condoms is a means of preventing the spread of HIV. Sixty-nine percent of women and 74% of men know that limiting sexual intercourse to one faithful, uninfected partner can reduce the chance of contracting HIV. Finally, 48% of women and 52% of men know that both using condoms and limiting sexual intercourse to one uninfected partner are means of preventing HIV.
Table 17 Knowledge of HIV prevention methods according to background characteristics

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting HIV by using condoms every time they have sexual intercourse and by having one sex partner who is not infected and has no other partners, according to background characteristics, PNG DHS 2016-18

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>Using condoms</th>
<th>Limiting sexual intercourse to one uninfected partner</th>
<th>Limiting sexual intercourse to one uninfected partner</th>
<th>Number of women</th>
<th>Using condoms</th>
<th>Limiting sexual intercourse to one uninfected partner</th>
<th>Limiting sexual intercourse to one uninfected partner</th>
<th>Number of men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-24</td>
<td>54.7</td>
<td>66.9</td>
<td>50.0</td>
<td>5,704</td>
<td>60.3</td>
<td>72.1</td>
<td>53.2</td>
<td>2,715</td>
</tr>
<tr>
<td>15-19</td>
<td>51.7</td>
<td>61.6</td>
<td>46.6</td>
<td>2,945</td>
<td>54.8</td>
<td>65.3</td>
<td>46.5</td>
<td>1,469</td>
</tr>
<tr>
<td>20-24</td>
<td>57.9</td>
<td>72.6</td>
<td>53.7</td>
<td>2,759</td>
<td>66.8</td>
<td>80.1</td>
<td>61.0</td>
<td>1,246</td>
</tr>
<tr>
<td>25-29</td>
<td>52.1</td>
<td>69.3</td>
<td>47.5</td>
<td>2,543</td>
<td>61.0</td>
<td>74.2</td>
<td>51.3</td>
<td>1,171</td>
</tr>
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<td>30-39</td>
<td>50.3</td>
<td>70.8</td>
<td>46.6</td>
<td>4,239</td>
<td>54.5</td>
<td>74.6</td>
<td>49.9</td>
<td>2,024</td>
</tr>
<tr>
<td>40-49</td>
<td>50.2</td>
<td>68.2</td>
<td>45.6</td>
<td>2,712</td>
<td>57.2</td>
<td>77.0</td>
<td>51.7</td>
<td>1,423</td>
</tr>
<tr>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
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<td>82.4</td>
<td>61.3</td>
<td>2,018</td>
<td>69.6</td>
<td>88.3</td>
<td>64.5</td>
<td>976</td>
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<td>66.5</td>
<td>45.8</td>
<td>13,180</td>
<td>56.5</td>
<td>71.9</td>
<td>49.7</td>
<td>6,357</td>
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<td></td>
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</tr>
<tr>
<td>Southern</td>
<td>53.3</td>
<td>65.2</td>
<td>48.8</td>
<td>2,899</td>
<td>61.1</td>
<td>72.0</td>
<td>55.9</td>
<td>1,490</td>
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<td>Highlands</td>
<td>50.4</td>
<td>69.6</td>
<td>45.3</td>
<td>6,213</td>
<td>53.5</td>
<td>70.7</td>
<td>45.4</td>
<td>2,871</td>
</tr>
<tr>
<td>Momase</td>
<td>49.5</td>
<td>66.5</td>
<td>46.1</td>
<td>3,919</td>
<td>59.8</td>
<td>78.5</td>
<td>54.8</td>
<td>1,999</td>
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<tr>
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<td>74.5</td>
<td>57.2</td>
<td>2,167</td>
<td>64.5</td>
<td>78.1</td>
<td>57.5</td>
<td>973</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No education</td>
<td>33.7</td>
<td>49.4</td>
<td>29.3</td>
<td>3,488</td>
<td>44.7</td>
<td>53.0</td>
<td>35.6</td>
<td>941</td>
</tr>
<tr>
<td>Elementary</td>
<td>43.7</td>
<td>57.5</td>
<td>36.8</td>
<td>676</td>
<td>46.0</td>
<td>62.0</td>
<td>39.6</td>
<td>253</td>
</tr>
<tr>
<td>Primary</td>
<td>52.8</td>
<td>68.4</td>
<td>48.3</td>
<td>6,969</td>
<td>56.7</td>
<td>73.2</td>
<td>50.6</td>
<td>3,593</td>
</tr>
<tr>
<td>Secondary</td>
<td>66.6</td>
<td>86.2</td>
<td>62.6</td>
<td>3,460</td>
<td>65.8</td>
<td>83.7</td>
<td>58.7</td>
<td>2,156</td>
</tr>
<tr>
<td>Higher</td>
<td>79.7</td>
<td>93.8</td>
<td>77.4</td>
<td>605</td>
<td>71.6</td>
<td>88.4</td>
<td>69.0</td>
<td>389</td>
</tr>
<tr>
<td>Wealth quintile</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest</td>
<td>33.5</td>
<td>49.1</td>
<td>29.4</td>
<td>2,783</td>
<td>43.9</td>
<td>56.7</td>
<td>37.1</td>
<td>1,366</td>
</tr>
<tr>
<td>Second</td>
<td>44.4</td>
<td>60.0</td>
<td>40.7</td>
<td>2,631</td>
<td>55.6</td>
<td>69.7</td>
<td>48.3</td>
<td>1,384</td>
</tr>
<tr>
<td>Middle</td>
<td>52.1</td>
<td>68.5</td>
<td>47.8</td>
<td>2,897</td>
<td>59.1</td>
<td>76.7</td>
<td>52.7</td>
<td>1,528</td>
</tr>
<tr>
<td>Fourth</td>
<td>60.6</td>
<td>75.9</td>
<td>55.6</td>
<td>3,118</td>
<td>61.2</td>
<td>79.3</td>
<td>54.0</td>
<td>1,399</td>
</tr>
<tr>
<td>Highest</td>
<td>65.9</td>
<td>84.6</td>
<td>61.2</td>
<td>3,569</td>
<td>69.0</td>
<td>85.3</td>
<td>63.7</td>
<td>1,656</td>
</tr>
<tr>
<td>Total</td>
<td>52.2</td>
<td>68.7</td>
<td>47.9</td>
<td>15,198</td>
<td>58.2</td>
<td>74.1</td>
<td>51.7</td>
<td>7,333</td>
</tr>
</tbody>
</table>

1 Using condoms every time they have sexual intercourse
2 Partner who has no other partners

Women and men in urban areas are more likely to be knowledgeable about HIV prevention methods than their counterparts in rural areas. Better-educated respondents and those in the highest wealth quintile are considerably more knowledgeable of HIV prevention methods than other respondents.

3.12.2 Comprehensive Knowledge about HIV Prevention among Young People

Table 18 presents information about comprehensive knowledge of HIV prevention among young people age 15-24. Comprehensive knowledge of HIV prevention is defined as knowing that both condom use and limiting sexual intercourse to one uninfected partner are HIV prevention methods, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about HIV transmission: that HIV can be transmitted by mosquito bites and by sharing food with a person who has HIV. Knowledge of how HIV is transmitted is crucial in enabling people to avoid HIV infection.
Table 18 Knowledge about HIV prevention among young people

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>Women age 15-24</th>
<th>Men age 15-24</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage with knowledge about HIV prevention</td>
<td>Number of women</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-19</td>
<td>21.3</td>
<td>2,945</td>
</tr>
<tr>
<td>15-17</td>
<td>18.3</td>
<td>1,714</td>
</tr>
<tr>
<td>18-19</td>
<td>25.6</td>
<td>1,231</td>
</tr>
<tr>
<td>20-24</td>
<td>27.7</td>
<td>2,759</td>
</tr>
<tr>
<td>20-22</td>
<td>28.9</td>
<td>1,694</td>
</tr>
<tr>
<td>23-24</td>
<td>26.0</td>
<td>1,065</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>25.9</td>
<td>3,511</td>
</tr>
<tr>
<td>Ever had sex</td>
<td>33.1</td>
<td>741</td>
</tr>
<tr>
<td>Never had sex</td>
<td>23.9</td>
<td>2,770</td>
</tr>
<tr>
<td>Ever married</td>
<td>22.1</td>
<td>2,194</td>
</tr>
<tr>
<td><strong>Residence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>34.9</td>
<td>819</td>
</tr>
<tr>
<td>Rural</td>
<td>22.7</td>
<td>4,885</td>
</tr>
<tr>
<td><strong>Region</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern</td>
<td>22.8</td>
<td>1,145</td>
</tr>
<tr>
<td>Highlands</td>
<td>22.9</td>
<td>2,312</td>
</tr>
<tr>
<td>Momase</td>
<td>28.4</td>
<td>1,426</td>
</tr>
<tr>
<td>Islands</td>
<td>24.1</td>
<td>822</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No education</td>
<td>9.0</td>
<td>740</td>
</tr>
<tr>
<td>Elementary</td>
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<td>203</td>
</tr>
<tr>
<td>Primary</td>
<td>17.3</td>
<td>2,964</td>
</tr>
<tr>
<td>Secondary</td>
<td>41.1</td>
<td>1,609</td>
</tr>
<tr>
<td>Higher</td>
<td>64.5</td>
<td>189</td>
</tr>
<tr>
<td><strong>Total 15-24</strong></td>
<td>24.4</td>
<td>5,704</td>
</tr>
</tbody>
</table>

1 Comprehensive knowledge about HIV prevention means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about transmission or prevention of HIV (that HIV can be transmitted by mosquito bites and by sharing food with a person who has HIV).

Table 18 shows that 24% of young women and 26% of young men have comprehensive knowledge of HIV prevention. Never-married young women who have ever had sex are more likely to be knowledgeable about HIV prevention than young women who are married. This pattern is not as prominent among young men. Among both sexes, the proportion with knowledge generally increases with age and educational attainment. Urban young people are more likely than rural young people to have knowledge of HIV prevention.

3.12.3 Multiple Sexual Partners

Limiting the number of sexual partners and practicing protected sex are crucial in the fight against the spread of sexually transmitted infections, including HIV. Respondents to the 2016-18 PNG DHS were asked detailed questions about their sexual behaviour, including the number of partners they had in the 12 months preceding the survey and condom use during their most recent sexual encounter.

Table 19.1 shows that only 1% of women reported having multiple sexual partners in the 12 months preceding the survey and 5% reported having sexual intercourse with a person who was neither their husband nor lived with them. Fourteen percent of never-married women and 10% of divorced, separated, or widowed women had sexual intercourse with a person who was neither their husband nor lived with them. Among women who had multiple sexual partners in the 12 months preceding the survey, 7% used a condom during their last sexual intercourse. Similarly, 17% of women who had sexual intercourse with a person who was neither their husband nor lived with them used a condom during their last sexual intercourse. Women in Papua New Guinea have had an average of 1.7 sexual partners in their lifetime.
Among all women age 15-49, percentage who had sexual intercourse with more than one sexual partner in the past 12 months and percentage who had intercourse in the past 12 months with a person who was neither their husband nor lived with them; among women having more than one partner in the past 12 months, percentage reporting that a condom was used during last intercourse; among women who had sexual intercourse in the past 12 months with a person who was neither their husband nor lived with them, percentage who used a condom during last sexual intercourse with such a partner; and among women who ever had sexual intercourse, mean number of sexual partners during their lifetime, according to background characteristics, PNG DHS 2016-18.

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>All women</th>
<th>Women who had 2+ partners in the past 12 months</th>
<th>Women who had intercourse in the past 12 months</th>
<th>Women who ever had sexual intercourse¹</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage who had intercourse in the past 12 months</td>
<td>Percentage who reported using a condom during last sexual intercourse</td>
<td>Mean number of sexual partners in lifetime</td>
<td>Number of women</td>
</tr>
<tr>
<td></td>
<td>Number of women</td>
<td>Number of women</td>
<td>Number of women</td>
<td>Number of women</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-24</td>
<td>1.5</td>
<td>5,704</td>
<td>10.2</td>
<td>84</td>
</tr>
<tr>
<td>15-19</td>
<td>1.4</td>
<td>2,945</td>
<td>(8.3)</td>
<td>41</td>
</tr>
<tr>
<td>20-24</td>
<td>1.6</td>
<td>2,739</td>
<td>(12.0)</td>
<td>43</td>
</tr>
<tr>
<td>25-29</td>
<td>1.9</td>
<td>2,543</td>
<td>(6.5)</td>
<td>48</td>
</tr>
<tr>
<td>30-39</td>
<td>1.4</td>
<td>4,239</td>
<td>(4.5)</td>
<td>61</td>
</tr>
<tr>
<td>40-49</td>
<td>0.4</td>
<td>2,712</td>
<td>*</td>
<td>12</td>
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<td><strong>Marital status</strong></td>
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<td></td>
<td></td>
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</tr>
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<td>3,968</td>
<td>17.4</td>
<td>54</td>
</tr>
<tr>
<td>Married/living together</td>
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<td>126</td>
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<tr>
<td>Divorced/separated/widowed</td>
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<td>1,179</td>
<td>(12.8)</td>
<td>25</td>
</tr>
<tr>
<td><strong>Residence</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>1.9</td>
<td>2,018</td>
<td>6.5</td>
<td>37</td>
</tr>
<tr>
<td>Rural</td>
<td>1.3</td>
<td>13,180</td>
<td>7.3</td>
<td>168</td>
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<td><strong>Region</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Southern</td>
<td>0.9</td>
<td>2,899</td>
<td>(13.8)</td>
<td>25</td>
</tr>
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<td>6,213</td>
<td>6.8</td>
<td>123</td>
</tr>
<tr>
<td>Momase</td>
<td>0.7</td>
<td>3,919</td>
<td>*</td>
<td>29</td>
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<td>2,167</td>
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<td>3,488</td>
<td>*</td>
<td>34</td>
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<td>0.6</td>
<td>676</td>
<td>*</td>
<td>4</td>
</tr>
<tr>
<td>Primary</td>
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<td>6,969</td>
<td>5.9</td>
<td>71</td>
</tr>
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<td>Secondary</td>
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<td>3,460</td>
<td>6.8</td>
<td>89</td>
</tr>
<tr>
<td>Higher</td>
<td>1.1</td>
<td>605</td>
<td>*</td>
<td>6</td>
</tr>
<tr>
<td><strong>Wealth quintile</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest</td>
<td>0.7</td>
<td>2,783</td>
<td>*</td>
<td>19</td>
</tr>
<tr>
<td>Second</td>
<td>0.7</td>
<td>2,831</td>
<td>*</td>
<td>19</td>
</tr>
<tr>
<td>Middle</td>
<td>1.5</td>
<td>2,897</td>
<td>(14.5)</td>
<td>44</td>
</tr>
<tr>
<td>Fourth</td>
<td>1.6</td>
<td>3,118</td>
<td>(7.0)</td>
<td>50</td>
</tr>
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<td>3,569</td>
<td>3.1</td>
<td>73</td>
</tr>
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<td>1.3</td>
<td>15,198</td>
<td>7.1</td>
<td>205</td>
</tr>
</tbody>
</table>

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

¹ Means are calculated excluding respondents who gave non-numeric responses.
Table 19.2 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months by background characteristics: Men

Among all men age 15-49, percentage who had sexual intercourse with more than one sexual partner in the past 12 months and percentage who had intercourse in the past 12 months with a person who was neither their wife nor lived with them; among men having more than one partner in the past 12 months, percentage reporting that a condom was used during last intercourse; among men who had sexual intercourse in the past 12 months with a person who was neither their wife nor lived with them, percentage who used a condom during last sexual intercourse with such a partner; and among men who ever had sexual intercourse, mean number of sexual partners during their lifetime, according to background characteristics, PNG DHS 2016-18

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>All men</th>
<th>Men who had 2+ partners in the past 12 months</th>
<th>Men who had intercourse in the past 12 months with a person who was neither their wife nor lived with them</th>
<th>Men who ever had sexual intercourse¹</th>
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<td>Percentage who had intercourse in the past 12 months</td>
<td>Percentage who reported using a condom during last sexual intercourse</td>
<td>Percentage who reported using a condom during last sexual intercourse with such a partner</td>
<td>Mean number of sexual partners in lifetime</td>
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<td>Number of men</td>
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<td>32.8</td>
<td>1,246</td>
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<td>1,423</td>
<td>17.5</td>
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<td>6.9</td>
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<td>7.9</td>
<td>5.4</td>
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<tr>
<td>Married/living together</td>
<td>19.2</td>
<td>44.1</td>
<td>272</td>
<td>21.2</td>
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<td>Divorced/separated/widowed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of union</td>
<td>47.0</td>
<td>9.7</td>
<td>303</td>
<td>7.1</td>
</tr>
<tr>
<td>In polygynous union</td>
<td>4.7</td>
<td>5.0</td>
<td>3,645</td>
<td>9.0</td>
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<tr>
<td>Not in polygynous union</td>
<td>7.9</td>
<td>30.6</td>
<td>3,366</td>
<td>23.4</td>
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<tr>
<td>Not currently in union</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>Residence</td>
<td>11.1</td>
<td>26.1</td>
<td>976</td>
<td>21.1</td>
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<td>7.4</td>
<td>15.6</td>
<td>6,357</td>
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<td>Rural</td>
<td></td>
<td></td>
<td></td>
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<td>5.7</td>
<td>19.7</td>
<td>1,490</td>
<td>26.4</td>
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<td>11.2</td>
<td>16.6</td>
<td>2,871</td>
<td>15.1</td>
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<tr>
<td>Highlands</td>
<td>6.7</td>
<td>16.9</td>
<td>1,999</td>
<td>9.3</td>
</tr>
<tr>
<td>Monasen</td>
<td>4.2</td>
<td>14.7</td>
<td>973</td>
<td>12.9</td>
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<td>Islands</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>4.9</td>
<td>8.5</td>
<td>941</td>
<td>(21.1)</td>
</tr>
<tr>
<td>No education</td>
<td>6.7</td>
<td>20.6</td>
<td>253</td>
<td>17</td>
</tr>
<tr>
<td>Elementary</td>
<td>5.3</td>
<td>12.6</td>
<td>3,593</td>
<td>14.6</td>
</tr>
<tr>
<td>Primary</td>
<td>12.1</td>
<td>26.7</td>
<td>2,156</td>
<td>16.6</td>
</tr>
<tr>
<td>Secondary</td>
<td>16.3</td>
<td>23.1</td>
<td>389</td>
<td>7.8</td>
</tr>
<tr>
<td>Higher</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wealth quintile</td>
<td>6.6</td>
<td>10.4</td>
<td>1,366</td>
<td>(10.7)</td>
</tr>
<tr>
<td>Lowest</td>
<td>6.1</td>
<td>13.7</td>
<td>1,384</td>
<td>26.0</td>
</tr>
<tr>
<td>Second</td>
<td>5.1</td>
<td>14.0</td>
<td>1,526</td>
<td>11.5</td>
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<td>Middle</td>
<td>6.8</td>
<td>19.3</td>
<td>1,399</td>
<td>11.3</td>
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<td>26.2</td>
<td>1,656</td>
<td>15.9</td>
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<td>Total</td>
<td>7.9</td>
<td>17.0</td>
<td>7,333</td>
<td>15.2</td>
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</table>

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

¹ Means are calculated excluding respondents who gave non-numeric responses.

Table 19.2 shows that 8% of men age 15-49 reported having had two or more sexual partners during the 12 months prior to the survey, while 17% reported that they had sexual intercourse with a person who was neither their wife nor lived with them. Among men who had two or more sexual partners in the 12 months prior to the survey, 15% reported using a condom during their last sexual intercourse. Thirty-three percent of men who had sexual intercourse with a person who was neither their wife nor lived with them used a condom during their last such sexual intercourse. Men in Papua New Guinea have had an average of 5.5 sexual partners in their lifetime.
3.13 DOMESTIC VIOLENCE

Gender-based violence against women has been acknowledged worldwide as a violation of basic human rights. It is a pervasive and worldwide problem in almost all societies. It permeates all social, cultural, economic, and ethnic groups. Violence can take many forms, including physical, sexual, emotional, economic, and psychological abuse. It can impact the health and well-being of women. In 2013, Papua New Guinea’s parliament passed the Family Protection Act, outlining penalties for domestic abusers in its effort to address violence against women (National Parliament 2013). However, the enforcement of this act has not been as effective as desired. Reliable data are needed to further inform and educate the population about the issues and to help policymakers properly execute the provision in the constitution.

The 2016-18 PNG DHS included a series of questions for women to collect information on both domestic violence (also known as spousal violence or intimate partner violence) and violence committed by other family members and unrelated individuals. In accordance with the World Health Organization (WHO) guidelines on the ethical collection of information on domestic violence, only one eligible woman per household was randomly selected for the domestic violence module, and the module was not implemented if privacy could not be obtained (WHO 2001).

Table 20 shows that 31% of women age 15-49 have ever experienced physical violence, while 3% have experienced sexual violence. A quarter of women age 15-49 have experienced both physical and sexual violence. Overall, 59% of women age 15-49 have experienced either physical or sexual violence. The proportion of women who have experienced physical or sexual violence increases from 43% among those age 15-19 to 65% among those age 30-39 before declining to 62% among those age 40-49.

<table>
<thead>
<tr>
<th>Age</th>
<th>Physical violence only</th>
<th>Sexual violence only</th>
<th>Physical and sexual violence</th>
<th>Physical or sexual violence</th>
<th>Number of women</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-19</td>
<td>28.0</td>
<td>3.4</td>
<td>11.4</td>
<td>42.8</td>
<td>881</td>
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<tr>
<td>15-17</td>
<td>28.6</td>
<td>2.6</td>
<td>7.1</td>
<td>38.3</td>
<td>534</td>
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<tr>
<td>18-19</td>
<td>27.0</td>
<td>4.6</td>
<td>18.0</td>
<td>49.6</td>
<td>346</td>
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<tr>
<td>20-24</td>
<td>34.4</td>
<td>4.2</td>
<td>20.1</td>
<td>58.6</td>
<td>939</td>
</tr>
<tr>
<td>25-29</td>
<td>29.2</td>
<td>3.0</td>
<td>31.3</td>
<td>63.4</td>
<td>783</td>
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<tr>
<td>30-39</td>
<td>28.9</td>
<td>2.5</td>
<td>33.5</td>
<td>64.9</td>
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<tr>
<td>40-49</td>
<td>33.4</td>
<td>3.7</td>
<td>24.5</td>
<td>61.6</td>
<td>891</td>
</tr>
<tr>
<td>Total</td>
<td>30.7</td>
<td>3.3</td>
<td>24.9</td>
<td>58.9</td>
<td>4,873</td>
</tr>
</tbody>
</table>

Women who reported any form of physical and/or sexual violence were asked if they sought help and, if so, to specify the source from which they sought help. A detailed account of help-seeking behaviours will be presented in the final report. A majority of women tend to seek assistance from their own family members (Table 21). For instance, 72% of women who experienced either physical or sexual violence sought help from family members. The practice of seeking help from a social work organisation, lawyers, or medical personnel is not common. However, 10% of women who experienced either physical or sexual violence sought help from the police.
Table 21  Sources for help to stop the violence

Percentage of women age 15-49 who have experienced physical or sexual violence and sought help by sources from which they sought help, according to the type of violence that women reported, PNG DHS 2016-18

<table>
<thead>
<tr>
<th>Source</th>
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<th>Sexual only</th>
<th>Both physical and sexual</th>
<th>Physical or sexual violence</th>
</tr>
</thead>
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<tr>
<td>Own family</td>
<td>73.6</td>
<td>*</td>
<td>69.3</td>
<td>71.7</td>
</tr>
<tr>
<td>Husband/partner's family</td>
<td>10.4</td>
<td>*</td>
<td>16.6</td>
<td>13.4</td>
</tr>
<tr>
<td>Husband/partner</td>
<td>0.1</td>
<td>*</td>
<td>1.0</td>
<td>0.6</td>
</tr>
<tr>
<td>Boyfriend</td>
<td>0.0</td>
<td>*</td>
<td>1.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Friend</td>
<td>8.4</td>
<td>*</td>
<td>12.5</td>
<td>10.7</td>
</tr>
<tr>
<td>Neighbour</td>
<td>7.7</td>
<td>*</td>
<td>14.2</td>
<td>11.0</td>
</tr>
<tr>
<td>Religious leader</td>
<td>7.1</td>
<td>*</td>
<td>11.6</td>
<td>9.3</td>
</tr>
<tr>
<td>Doctor/medical personnel</td>
<td>4.7</td>
<td>*</td>
<td>2.2</td>
<td>3.3</td>
</tr>
<tr>
<td>Police</td>
<td>5.0</td>
<td>*</td>
<td>14.9</td>
<td>10.1</td>
</tr>
<tr>
<td>Lawyer</td>
<td>0.1</td>
<td>*</td>
<td>0.4</td>
<td>0.3</td>
</tr>
<tr>
<td>Social work organisation</td>
<td>3.0</td>
<td>*</td>
<td>2.5</td>
<td>2.7</td>
</tr>
<tr>
<td>Other</td>
<td>3.6</td>
<td>*</td>
<td>5.6</td>
<td>4.7</td>
</tr>
<tr>
<td>Number of women who have sought help</td>
<td>442</td>
<td>29</td>
<td>519</td>
<td>990</td>
</tr>
</tbody>
</table>

Note: Women can report more than one source from which they sought help. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
REFERENCES


"WE LEADERS AND PEOPLE MUST KNOW WHERE WE WANT TO GO BEFORE WE CAN DECIDE HOW WE SHOULD GET THERE. BEFORE A DRIVER STARTS A MOTOR CAR, HE SHOULD FIRST DECIDE ON HIS DESTINATION. OTHERWISE HIS DRIVING WILL BE WITHOUT PURPOSE, AND HE WILL ACHIEVE NOTHING. WE PAPUA NEW GUINEANS ARE NOW IN THE DRIVING SEAT. THE ROAD WHICH WE SHOULD FOLLOW OUGHT TO BE MARKED OUT SO THAT ALL WILL KNOW THE WAY AHEAD."

(Constitutional Planning Committee (CPC) Report, 1974, Chapter 2, Section 4)
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<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>APEC</td>
<td>Asia Pacific Economic Cooperation</td>
</tr>
<tr>
<td>ASEAN</td>
<td>Association of South-East Asian Nations</td>
</tr>
<tr>
<td>BOP</td>
<td>Balance of Payment</td>
</tr>
<tr>
<td>BPNG</td>
<td>Bank of Papua New Guinea</td>
</tr>
<tr>
<td>CACC</td>
<td>Central Agencies Coordinating Committee</td>
</tr>
<tr>
<td>CPC</td>
<td>Constitutional Planning Committee</td>
</tr>
<tr>
<td>CPO</td>
<td>Central Planning Office</td>
</tr>
<tr>
<td>DSIP</td>
<td>District Services Improvement Program</td>
</tr>
<tr>
<td>DTIP</td>
<td>District Transport Improvement Program</td>
</tr>
<tr>
<td>EEF</td>
<td>Education Endowment Fund</td>
</tr>
<tr>
<td>EEZ</td>
<td>Exclusive Economic Zone</td>
</tr>
<tr>
<td>GDI</td>
<td>Gross Domestic Income</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GER</td>
<td>Gross Enrolment Rate</td>
</tr>
<tr>
<td>GoPNG</td>
<td>Government of Papua New Guinea</td>
</tr>
<tr>
<td>HC</td>
<td>Human Capital</td>
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<tr>
<td>HDI</td>
<td>Human Development Index</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>Human Infected Virus/ Acquired Immune Deficiency Syndrome</td>
</tr>
<tr>
<td>HSIP</td>
<td>Health Sector Improvement Program</td>
</tr>
<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>ITDI</td>
<td>Industrial Technology Development Institute</td>
</tr>
<tr>
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<td>Key Result Areas</td>
</tr>
<tr>
<td>LLG</td>
<td>Local-level Government</td>
</tr>
<tr>
<td>LNG</td>
<td>Liquefied Natural Gas</td>
</tr>
<tr>
<td>LTDS</td>
<td>Long-Term Development Strategy</td>
</tr>
<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
</tr>
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<td>MTDS</td>
<td>Medium Term Development Strategy</td>
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<tr>
<td>NACS</td>
<td>National Aids Council Secretariat</td>
</tr>
<tr>
<td>NADP</td>
<td>National Agriculture Development Plan</td>
</tr>
<tr>
<td>NCAMA</td>
<td>National Curriculum Assessment and Monitoring Authority</td>
</tr>
<tr>
<td>NDOH</td>
<td>National Department of Health</td>
</tr>
<tr>
<td>NEC</td>
<td>National Executive Council</td>
</tr>
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<td>NEFC</td>
<td>National Economic and Fiscal Commission</td>
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<tr>
<td>NGDP</td>
<td>National Goals and Directive Principles</td>
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<td>NGOs</td>
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<td>National Planning Committee</td>
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<td>NPEP</td>
<td>National Public Expenditure Plan</td>
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<tr>
<td>NRI</td>
<td>National Research Institute</td>
</tr>
<tr>
<td>NSA</td>
<td>Non-State Actor</td>
</tr>
<tr>
<td>NSO</td>
<td>National Statistical Office</td>
</tr>
<tr>
<td>OBE</td>
<td>Outcome Based Education</td>
</tr>
<tr>
<td>OECD</td>
<td>Organization of Economic Cooperation and Development</td>
</tr>
<tr>
<td>OFDE</td>
<td>Open Flexible and Distance Education</td>
</tr>
<tr>
<td>OLIPPPAC</td>
<td>Organic Law on the Integrity of Political Parties and Candidates</td>
</tr>
<tr>
<td>OLPGLLG</td>
<td>Organic Law on Provincial Governments and Local-level Governments</td>
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<td>Full Form</td>
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<tr>
<td>---------</td>
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<tr>
<td>PLLSMA</td>
<td>Provincial and Local-level Service Monitoring Authority</td>
</tr>
<tr>
<td>PNG</td>
<td>Papua New Guinea</td>
</tr>
<tr>
<td>PPCP</td>
<td>Public Private Community Partnership</td>
</tr>
<tr>
<td>PPP</td>
<td>Public Private Partnership</td>
</tr>
<tr>
<td>PSRMU</td>
<td>Public Service Reform Management Unit</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>Research and Development</td>
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<tr>
<td>RESI</td>
<td>Rural Education Services Improvement</td>
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<td>RPNGC</td>
<td>Royal Papua New Guinea Constabulary</td>
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<td>Service Delivery Mechanism Model</td>
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<td>SFA</td>
<td>Strategic Focus Area</td>
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<td>SME</td>
<td>Small-Medium Enterprise</td>
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<td>SOE</td>
<td>State-Owned Enterprise</td>
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<td>Standard Operating Procedure</td>
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<td>Sexually Transmitted Infection</td>
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<td>Tariff Reduction Program</td>
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<tr>
<td>UBE</td>
<td>Universal Basic Education</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Program</td>
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</table>
THE NEXT GENERATION OF NATION BUILDERS

After three decades of political independence, my Government has had the courage to step back and reflect on our journey as a young nation. Most importantly, we have taken critical stock of our level of progress and have now set a new path for our future to ensure that positive development is not left to chance. It is no secret that a stable political environment has played a major role in enabling Papua New Guinea to chart this bold course, which was not possible in the past.

In December 2008, my government tasked the National Planning Committee with the responsibility of setting a visionary development strategy to guide our socioeconomic development.

It gives me the greatest pleasure and a sense of distinct duty to present to you the Papua New Guinea Vision 2050. Our Vision 2050 provides every man, woman, boy, and girl in this nation with the opportunity for personal development and positive engagement. As a government, we are convinced that we must empower our people with the right education and life-skills, and provide them with the opportunity to earn an honest living. Only then can we guarantee our nation’s continued prosperity and security.

I want to assure our people that the Papua New Guinea Vision 2050 is a ‘home-grown’ initiative. Although we have sought input from our friends in the region, the aspirations that are reflected in Vision 2050 have been derived from wide consultations with our people from the 89 constituencies in the country. Simple villagers, mothers, children, qualified academics, and other professionals have contributed to this document. The final version of Vision 2050 has been prepared by our own sons and daughters, with inputs from some of our most qualified citizens. I am personally proud of this because these people are the products of the past 34 years of nation building.

Our journey towards the Papua New Guinea Vision 2050 has already begun. In August 2009, my Government reached agreement with the governors of the provinces, resulting in the ‘Morobe Communiqué’. This agreement has now set the tone for the future of Papua New Guinea, as envisioned under Vision 2050. We have agreed to a political structure to help us advance our shared national Interests. I commend the governors, Ministers of State, Members of Parliament and all other political leaders for their invaluable contributions to the process.

Our grave concern for service delivery to our people, particularly in the rural communities, prompted us to give particular attention to institutional development and service delivery through the service delivery mechanism. It is our intention to ensure that, in the future, our service providers deliver services effectively and equitably to our communities.

I am particularly comforted to note that, throughout history, countries with fewer resources than us have succeeded in building prosperous and progressive societies. Our challenge is to utilise the vast resources that God has blessed us with to better the lives of our people, today and into the future, in a responsible and fair way.
I have always been a strong believer in long-term planning, with my first attempt being the launch of the National Development Strategy in October 1976. Given the personal achievements of our sons and daughters in the public service, academia, business and other areas, I am convinced that we now have the prerequisite foundation, which did not exist in the early years after independence, to succeed in this endeavour.

We have made some bold statements in the Papua New Guinea Vision 2050 about the kind of society we want to enjoy and leave for the future generations. It goes without saying that we aim for nothing less than achieving the highest quality of life for our people.

I wish to pay special tribute to the churches who have played a major role in the development of our nation. Much of the burden of providing health and education to our people has been carried by these organisations. I now call upon them to again partner us the people, because their expertise and assistance will be required for us to deliver the aspirations of the Papua New Guinea Vision 2050. This government also recognises the need for churches to play a much larger role moulding the characters of our people to enable us to shift paradigms away from the current prevailing attitudes.

In order to be successful, we must also ensure that our public servants are skilled and properly resourced in order to deliver the promises of the Papua New Guinea Vision 2050. It is my firm belief that our public servants hold the key to achieving the targets which we have set.

We have only one strategic vision, and that is the Papua New Guinea Vision 2050. All future medium to long-term strategies and plans must align to this vision in a cascading way, whereby there is only one higher vision. Others simply take their cue from the Papua New Guinea Vision 2050’s Mission Statement.

It is the sincere hope of my government that future governments will embrace the Papua New Guinea Vision 2050, and that it will enjoy bipartisan support today and in the future. I trust that all successive governments will continue to monitor and review our performance against the targets that we have set. This remains one of the noblest tasks which we can discharge, as leaders to our people.

I challenge every citizen to seize the promise of Vision 2050 and advance themselves. Through this process, I expect that you will realise your rights and privileges as citizens of this great nation and take your appropriate place in society.

God bless Papua New Guinea

Rt. Hon. Grand Chief Sir Michael T. Somare, GCL, GCMG, CH CF KStJ
Prime Minister
VISION 2050: OUR PEOPLE’S VISION

In the launching of Papua New Guinea’s first ever national vision, on behalf of the people of Papua New Guinea, I acknowledge and express our deepest appreciation to our founding fathers, who had the foresight to chart the course of our nation’s history. They were wise and able Papua New Guineans.

We are indebted to so many of our late distinguished leaders like Sir John Guise, Sir Paul Lapun, Sir Paulus Arek, Sir Tei Abal, Mr Mathias Toliman, Sir Ebia Olewale and Sir Maori Kiki and many others for their wisdom and leadership.

Others are still serving the nation today such as the Prime Minister, Grand Chief Rt. Hon. Sir Michael Somare, Rt. Hon. Sir Julius Chan, Sir John Kaputin, Mr. John Momis and Mr. Bernard Narokobi to name a few. These leaders had visions and courage and took the first steps to formalise the birth of our nation.

They were the people who conceived the vision and laid its framework in the National Goals and Directive Principles which are enshrined in our Constitution. I acknowledge and thank every Papua New Guinean, our friends, and our development partners who have contributed one way or another, towards the development of the Papua New Guinea Vision 2050.

Thirty-four years after our independence we are now making history by using the framework that was set in our National Goals and Directive Principles to develop Vision 2050.

The concepts and strategic direction in the framework of Vision 2050 were rigorously tested during a three-month comprehensive nationwide consultation program in the 89 districts and Papua New Guinean children, adolescents and adults were asked to contribute to the development of Vision 2050.

I am pleased to say that the response was overwhelming, as men, women and children came forward and described the type of Papua New Guinea in which they would like to live. On the basis of these public consultations, Vision 2050 was formulated. Vision 2050 is based on the dreams and aspirations of the many Papua New Guineans who yearn to live in a country where all people are given a fair go in life. I therefore believe that Vision 2050 is truly the ‘people’s vision’.

Vision 2050 sets the overall direction for the country to attain our dream to be a Smart, Wise, Fair, Healthy and Happy Society by 2050. This means that by 2050, we as a people, will reward excellence and reach high standards of innovativeness. We will also be healthy, wealthy and safe. Our institutions will practise and uphold higher standards of transparency, accountability and good governance. In addition, our people and government will contribute more effectively to the social and economic well-being of our beautiful nation.

I pay special tribute to our Grand Chief, the Rt. Hon. Sir Michael Somare and members of the National Planning Committee in recognition of their leadership in this endeavour.

I also thank the 12-member National Strategic Planning Taskforce and its Technical Advisory Team, for their valuable contributions.

Furthermore, I wish to thank many of our people who have steadfastly prayed for a better Papua New Guinea. This is a testimony of their combined loyalty to translate the thinking of the Government and the aspirations of our people into a directional statement that will guide the nation forward over the next 40 years, through the Vision and Mission of The Papua New Guinea Vision 2050.
Above all, I thank God for his inspiration in the development of this vision and pray for his continual guidance as we endeavour to take Vision 2050 forward.

Hon. Sir Dr. Puka I. Temu CMG, KBE, MP

Deputy Prime Minister and Chairman of the National Planning Committee
EXECUTIVE SUMMARY

In December 2007, the National Executive Council (NEC) of Papua New Guinea, on advice from the National Planning Committee (NPC), made a decision to develop a framework for a long-term strategy — “The Papua New Guinea Vision 2050” — that should map out the future direction for our country and reflect the aspirations of the people of Papua New Guinea.

Vision 2050 is underpinned by seven Strategic Focus Areas, which are referred to as pillars:

- Human Capital Development, Gender, Youth and People Empowerment;
- Wealth Creation;
- Institutional Development and Service Delivery;
- Security and International Relations;
- Environmental Sustainability and Climate Change;
- Spiritual, Cultural and Community Development; and
- Strategic Planning, Integration and Control.

Papua New Guinea has great potential through its natural resources — land, cash crops, forests and fisheries — to improve its socioeconomic development status. Equally important are other areas that can contribute to economic growth and better living standards for the people, including human capital development, an improved infrastructure networks and an efficient service delivery mechanism for public goods and services. These areas underscore the underlying theme that drives Vision 2050 and the development agenda for Papua New Guinea.

Based on the deterioration of the provision of public goods and services and lack of meaningful participation of the rural people in income-earning activities and their aspirations to do better, Vision 2050 incorporates the National Government’s Strategic Directional Statements that will drive development initiatives over the next 40 years.

The nation will focus all its efforts and will strive to achieve the following key outcomes:

- Changing and rehabilitating the mind-set of our people;
- having strong political leadership and will power;
- improvement in governance;
- improvement in service delivery;
- improvement in law and order;
- development of strong moral obligation; and
- rapid growth potential which can be realized in a reasonable time.

When the directional statements together with the seven pillars are effectively and efficiently implemented in programs and projects, Papua New Guinea will be transformed into an emerging developing country.

To be among the top 50 countries in the United Nations Human Development Index (HDI), there will be several pathways which Papua New Guinea’s economy can take. Vision 2050 will pursue four development routes for the first ten years. For the years 2020 through to 2050, we will aspire for economic growth at some desirable rates, underpinned by key development projects. These include better service delivery, improved education, improved health services and sound political leadership and structures.
The Base Case Scenario (Scenario One) in the economic growth projections involving renewable resources is the minimum possible under improved service delivery, the promotion of human capital development, increased downstream processing, development and adoption of new technologies and improved productivity (see Chapter 2). The economy will grow in real terms at an average of 4.5 percent per year up to 2020. With an estimated population growth of 2.5 percent over the next 40 years until 2050, an increase in per capita income is expected.

When Land Reform (Scenario Two) is undertaken starting in 2010, the Base Case Scenario will be enhanced. When around three percent more of customary land is brought into production in the formal sector, the economy is projected to grow at an additional 1.2 percent each year on average. This scenario will empower our people to participate in income-generating activities through cultivation of their land. This will lead to broad-based economic growth and ensure balanced development in rural and urban areas.

With the inclusion of the Liquefied Natural Gas (LNG) project (Scenario Three), excluding land reform, the economic growth will be even better.

When the combined three scenarios are realised (Scenario Four), real GDP growth will more than double.

Papua New Guinea can become a smart, fair, wise, healthy and happy nation when all the directional statements under Vision 2050 are articulated, institutionalised and implemented efficiently and effectively.

In summary, opportunities will be created under the combined scenarios for Papua New Guineans to take part in the development processes:

- empowering the people through improved education and life-skills;
- working the land and benefiting from spin-offs from major projects;
- enhancing the level of service delivery and basic infrastructure; and
- increasing trade volume.
DIRECTIONAL AND ENABLING STATEMENTS

Directional Statement

1.1 Serious thinking about development planning in the then Territory of Papua and New Guinea first evolved from the recommendations of the Foot Mission from the United Nations in 1962. At self-government in 1973, Chief Minister Michael Somare commissioned the development of what became known as the Eight Aims and later renamed the Eight Point Plan. The Eight Point Plan\(^1\) was a statement of intent by the founding fathers of our nation who wanted to build a peaceful and harmonious society as well as to prosper and empower our people. The objectives under the Eight Point Plan are:

- increased indigenous participation in the economy;
- equality amongst ethnic groups, gender and between areas;
- greater attention to rural and village development; and
- self-reliance.

1.2 In 2009, thirty-four years later we still have not progressed as aspired to at independence. As a country, we have not progressed well particularly in delivering services to our rural and remote communities. Our national history indicates that we have:

- lacked clear strategic actions in our development plans;
- experienced corruption and poor governance;
- fared poorly in our economic performance, particularly for the periods 1989 – 1990 and 1995 – 2002; and

1.3 All of these factors point towards the critical need to chart a new development course hence, the rationale for Vision 2050.

1.4 Vision 2050 is the aspiration of every Papua New Guinean to fulfil the dreams of our founding fathers and to ensure that the correct mechanisms are in place for our country’s future.

1.5 The challenge for Vision 2050 is to ensure that we set clear, attainable goals and secure our future well-being by building internal capabilities. Based on our nation-building experience so far, critical lessons have been learned, which are now guiding the development of Vision 2050.

\(^1\) Somare, M, 1974
1.6 These lessons are:

- Papua New Guinea needs a vision to guide medium-term development plans over a longer period;
- Papua New Guineans must have noble values and positive attitudes and learn to become powerful forces and change agents for development and nation building;
- Papua New Guinea must set minimum standards for its institutions and systems so that their integrity is not compromised. Institutions and systems must be compelled and committed to deliver high quality services to all citizens at all times, particularly in tough economic times;
- having an abundance of natural resources does not make nations socially poor or prosperous;
- race or skin colour does not make nations socially or economically poor or prosperous; and
- the difference must be in our attitude, mind-sets, dedication and commitment to pursuing sustainable socioeconomic development.

1.7 After three decades of political independence, we are critically reviewing our systems, institutions and policies because our people are demanding better ways forward and better performance results for the future. In development thinking, two major changes are critical, if we are to deliver better quality results:

- Papua New Guinea must have a ‘long-term strategy’ to underpin, guide and support its current medium-term development strategies;
- Papua New Guinea’s policies, institutions and systems must shift from the current ‘scarcity mentality’ to the positive ‘abundance mentality’ to activate this paradigm shift; and
- Vision 2050 embraces the five National Goals and Directive Principles that are enshrined in our Constitution\(^2\), as our Guiding Principles:

  1.7.1 Integral Human Development;
  1.7.2 Equality and Participation;
  1.7.3 National Sovereignty and Self-Reliance;
  1.7.4 Natural Resources, Resource Creation and Environment; and
  1.7.5 Papua New Guinean Ways.

1.8 Taking into account the emerging global economic trends, Vision 2050 seeks to position Papua New Guinea in the global environment in order to maximise its comparative and competitive advantages, thereby including an additional “Guiding Principle No. 6 — Papua New Guinea Is Progressive and Globally Competitive”.

\(^2\) Papua New Guinea Constitution 1975
1.9 **The Strategic Direction:** Currently, our economy is dominated by the mining and energy sectors. These sectors contribute approximately 80 percent of our total export revenue.

1.9.1 The strategic direction for Vision 2050 is that, *“Papua New Guinea will develop and grow the manufacturing, services, agriculture, forestry, fisheries and eco-tourism sectors from 2010 to 2050.”* This direction will enable economic growth by 2050 to be broad based, ensuring that disposable household incomes will be much higher than at present. These initiatives will enhance our socioeconomic performance and improve our overall HDI ranking.

1.9.2 The challenge therefore is, *‘How do we shift an economy that is currently dominated by the mining and energy sectors, to one that is dominated by agriculture, forestry, fisheries, eco-tourism and manufacturing, between 2010 and 2050?’*

**Pillars for the Vision**

1.10 *The Vision 2050 will focus on ‘Seven Pillars’ from 2010 to 2050:*

1.10.1 Human Capital Development, Gender, Youth and People Empowerment;
1.10.2 Wealth Creation;
1.10.3 Institutional Development and Service Delivery;
1.10.4 Security and International Relations;
1.10.5 Environment Sustainability and Climate Change;
1.10.6 Spiritual, Cultural and Community Development; and
1.10.7 Strategic Planning, Integration and Control.

1.11 Papua New Guinea enjoys substantial natural wealth and has experienced growth in total output and real GDP per capita in the past six years (see Figures 3.1 and 3.2).

1.12 Vision 2050 should be grounded and secured in the first ten years, commencing 2010 to 2020. Projections and key tangible outcomes must be achieved during this period in order to secure the way forward for 2020 to 2050. In monitoring and assessing the lengthy period that the vision is covering, it is important that a major review is carried out by 2019 in order to measure its continued efficacy and to set new targets for the period 2020-2030, with ensuing major reviews in 2029 and 2039, respectively.

1.13 A key opportunity is to adopt a ‘focus’ strategy on the resource and manufactured exports to ensure that it is accountable and sustainable, with strong initial growth measures from 2010 to 2020. Once strong growth has been achieved in the mining industries and the renewable resource-based exports, it is important to use that income to create more opportunities to grow the economy.
1.13.1 Opportunities exist in food production for the domestic market, high value export crops, developing import-competing industries, plantations and forestry. Further conservation of our ancient forests, marine life and our flora and fauna are some of the many ways to grow our economy. Downstream agro-industries, small-scale and light manufacturing, eco-tourism, and the service industry, artisanal and small-scale economic activities in fishing, mining, and village-based forestry are also good prospects. Improving the investment environment and adopting *economic corridor planning* in all regions of the country will greatly promote the non-mineral sector and drive social and economic growth. In this regard, *land reform* will be important. For the industries already mentioned and expected to boom, good governance and sound public financial management are essential and must be put in place. This will certainly ensure that there is equitable economic growth and efficient service delivery.

1.14 Strategic planning, better service delivery, improved governance, identification of training needs of human capital, tariff reduction, increased trade, education reform and implementation, downstream processing and manufacturing, land reform, and impact projects in the 89 districts must be implemented to set the base for growth in the 2010 to 2020 period and set the foundation for the remaining years of Vision 2050.

1.15 With the inclusion of the LNG project, Papua New Guinea’s real GDP growth will be even higher. It is estimated that real GDP will average K18.2 billion a year from 2014 onwards as a result of value adding. That is an additional K9 billion a year above the current level of real GDP. This estimate is considered too high. A more conservative estimate of a K5 billion incremental increase a year, on average, is taken. Real GDP will reach K20 billion by 2020. Per capita income is projected to reach K2 420.50 by 2020.

1.16 Papua New Guinea’s real GDP is projected to reach between K15 to K24 billion and per capita income of K1 820 to K2 820 by 2020. Figure 2.1 shows the projected level of GDP in 2010, 2015, and 2020, under the Four Scenarios. If land reform is undertaken from 2010, real GDP will improve from K9.7 to K12.5 billion, which is an increase of K2.8 billion. While the LNG project has the potential to provide a huge funding relief to the Government in its efforts to stabilise service delivery and infrastructure development, Vision 2050 would insist that, as a matter of strategy, to reduce the incidence of poverty across the country and improve the Human Development Indicators, decision makers should not relent in their push for land reform, as the multiplier effects of such a reform would reverberate throughout the country, past the life-span of the LNG project.

1.16.1 To leverage the strategic thrust of Vision 2050 towards the renewable sector (70:30 ratio), it is critical that land reform should commence in the first ten years, with further progress to be made in the remaining 30 years. In order for the efficient distribution of public goods, such as roads, health facilities and educational institutions, there must be economic growth and an efficient and effective service delivery mechanism. Improved distribution of public goods and better trained human capital, will lead to the increased participation of people who are healthy, skilled and knowledgeable. This will ensure that rural and remote communities contribute positively to the development process.
1.17 Human Development, Gender, Youth and People Empowerment

The following statements are projected to form the basis of socioeconomic growth under Vision 2050.

1.17.1 Human Development

1.17.1.1 Improve Papua New Guinea’s Human Development Index (HDI)\(^3\) ranking to 50 from 148 amongst the United Nations member countries;
1.17.1.2 Improve Papua New Guinea’s access to services and basic infrastructure; and
1.17.1.3 Improve life expectancy\(^4\) of Papua New Guineans from 57.9 to 77 years of age.

1.17.2 Education

1.17.2.1 Free and Universal Basic Education for all school-age children from Elementary 1 to Grade 12;
1.17.2.2 One hundred percent literacy for the adult population over 15 years of age;
1.17.2.3 Access to industry and sector-based applied education for the adult population in the informal sector;
1.17.2.4 Expand all secondary schools proportionate to Universal Basic Education targets;
1.17.2.5 Expand the national high schools and integrate them with universities;
1.17.2.6 Expand teachers, technical, business, forestry, fisheries, maritime, tourism and hospitality, and community colleges that are recognised as institutions of higher education;
1.17.2.7 Expand the state universities and support private universities and other institutions;
1.17.2.8 Establish one multi-disciplinary technical college in each province;
1.17.2.9 Establish one vocational school in each district;
1.17.2.10 Introduce good citizenship, ethics, morality and personal viability in all education and training institutions’ curricula;
1.17.2.11 Establish a National Curriculum, Assessment and Monitoring Authority;
1.17.2.12 Establish an Education Endowment Fund;
1.17.2.13 Establish an Industrial Technology and Development Institute;
1.17.2.14 Establish a Papua New Guinea Open University to coordinate flexible learning programs of the four state universities;

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\(^3\) The HDI provides a composite measure of three dimensions of human development: living a long and healthy life (measured by life expectancy); being educated (measured by adult literacy and enrolment at the primary, secondary and tertiary level); and having a decent standard of living (measured by purchasing power parity, and income), and gender equity in relation to these indices (http://hdr.undp.org/en/statistics/).

1.17.2.15 Improve teacher-student ratio to 1:30;
1.17.2.16 Improve terms and conditions of academics and teachers;
1.17.2.17 Establish public-private partnership in delivering education;
1.17.2.18 Introduce environmental sustainability and climate change as school subjects into the National Education Curriculum; and
1.17.2.19 Promote and establish the use of Information and communications technology (ICT) for sustainable education.

1.17.3 Health

1.17.3.1 Reduce HIV and AIDS prevalence from 1.28 percent of the population aged 15-49\(^5\) to 0.1 percent;
1.17.3.2 Reduce tuberculosis prevalence from 51 per 100 000\(^6\) to 10 per 100 000 of the population;
1.17.3.3 Reduce malaria deaths from 65 per 100 000\(^7\) to 10 per 100 000 of the population;
1.17.3.4 Ensure that the referral hospitals are adequately equipped to international standards;
1.17.3.5 Establish one aid post per ward area;
1.17.3.6 Provide two health workers per ward area;
1.17.3.7 Establish one basic health service centre with two doctors and support personnel per district;
1.17.3.8 Improve the terms and conditions of employment of health officers; and
1.17.3.9 Establish a Health Endowment Fund.

1.17.4 Wealth Creation

1.17.4.1 Agriculture

1.17.4.1.1 Establish two major economic projects in all 89 districts;
1.17.4.1.2 Expand production volume of all major cash crops to enable downstream processing;
1.17.4.1.3 Provide two agriculture extension officers per district;
1.17.4.1.4 Improve the terms and conditions of employment of agricultural officers; and
1.17.4.1.5 Establish a unified agricultural plan by 2015.

1.17.4.2 Forestry

1.17.4.2.1 Eliminate the export of round logs by 2010;
1.17.4.2.2 Ensure the downstream processing of all logs onshore; and
1.17.4.2.3 Develop forestry plantations in suitable areas, with landowner participation.

1.17.4.3 Fisheries

1.17.4.3.1 Establish fisheries projects and markets in economically viable districts;
1.17.4.3.2 Establish one coastal fishery processing facility in the majority of maritime provinces; and
1.17.4.3.3 Develop an aquaculture program for inland areas.

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\(^7\) World Health Organisation, Western Pacific Country Health Information Profiles, 2008.
1.17.4.4 Tourism

1.17.4.4.1 Register all terrestrial and marine resources as incorporated group for tourism;
1.17.4.4.2 Introduce a tourism and hospitality curriculum in high schools, secondary schools and national high schools; and
1.17.4.4.3 Employ attractive, aggressive marketing and promotion of Papua New Guinea, as a preferred tourist destination.

1.17.5 Manufacturing

1.17.5.1 Manufacturing industries to attain 20 percent contribution to GDP;
1.17.5.2 Establish Special Economic Zones;
1.17.5.3 Encourage processing for export; and
1.17.5.4 Develop an Industrialisation Master Plan.

1.17.6 Robust Economic Growth

1.17.6.1 Expand the manufacturing sector to increase its contribution to GDP;
1.17.6.2 All 89 districts must have at least one major impact project;
1.17.6.3 Empower and positively discriminate in favour of indigenous citizens in business start-ups and expansions;
1.17.6.4 Strengthen the capacity of institutions responsible for entrepreneurial training;
1.17.6.5 Provide tax relief and other incentives for indigenous-owned companies;
1.17.6.6 Establish a Foreign Investment Review Board;
1.17.6.7 Establish an Insurance, Banking and Financial Institutions Review Board;
1.17.6.8 Establish a Price, Rent and Fee Monitoring Authority;
1.17.6.9 Establish a Papua New Guinea Export-Import Bank;
1.17.6.10 Establish an Off-Shore Foreign Currency Fund, or its equivalent;
1.17.6.11 Develop regional economic corridor plans;
1.17.6.12 Establish an Entrepreneurial Incubator Scheme;
1.17.6.13 Conduct a feasibility assessment of the potential future role of a National Development Bank and consideration of the need to establish a development charter; and
1.17.6.14 Ensure that 50 percent of our citizens become self-employed entrepreneurs.

1.17.7 Institutional Development and Service Delivery

1.17.7.1 Political Options

1.17.7.1.1 Maintain the three-tier system of government and improve service delivery to local-level governments in accordance with the Resolutions of the August 2009 ‘Morobe Communiqué’;
1.17.7.1.2 Ensure direct funding to local-level governments through appropriate legislation;
1.17.7.1.3 Develop a clear policy on the ‘devolution of responsibilities’; and
1.17.7.1.4 Prepare the legislative framework for ‘the reserve of seats for women in the National Parliament’, as well as provincial and local-level governments.
1.17.7.1.5 Prepare provision for reserve seats for disables and other sizable marginalized segments of the population.

1.17.7.2 Public Sector
1.17.7.2.1 Continue public sector reforms;
1.17.7.2.2 Complete and enforce performance-based contracts for all executives of the public service;
1.17.7.2.3 All senior public service management level staff to hold a Masters Degree or equivalent;
1.17.7.2.4 All public servants to hold a basic degree or equivalent;
1.17.7.2.5 Convert the PNG Institute of Public Administration to the Somare School of Government;
1.17.7.2.6 Improve the terms and conditions of public sector employees;
1.17.7.2.7 Implement an effective service delivery mechanism model;
1.17.7.2.8 Ensure the operationalisation of Vision 2050;
1.17.7.2.9 Reform and unlock three percent of customary land; and
1.17.7.2.10 Establish an appropriate policy and legislative framework for good governance.

1.17.7.3 Infrastructure and Utilities
1.17.7.3.1 Increase the national road network from the current 25,000 km\(^8\) to complete road networks throughout Papua New Guinea;
1.17.7.3.2 Develop and seal all airstrips throughout the country;
1.17.7.3.3 Increase the number of jetties and wharfs in all maritime provinces, and reintroduce government work boats;
1.17.7.3.4 Increase the availability of rural electrification from 15 percent\(^9\) to 100 percent of the population;
1.17.7.3.5 Increase access to clean water from 39 percent\(^10\) to 100 percent of the population;
1.17.7.3.6 Increase communication access from 10 percent\(^11\) to 100 percent of the population;
1.17.7.3.7 Ensure that the Department of Works takes full ownership of all road networks throughout Papua New Guinea;
1.17.7.3.8 Establish banking services in all 89 districts;
1.17.7.3.9 Establish postal services in all 89 districts;

1.17.7.4 Provide 100 percent of institutional housing for public servants in the rural areas and for those people employed in essential services; and

1.17.7.4.1 Establish a communications satellite network for Papua New Guinea.

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\(^10\) http://world.vision.org/content.nsf/learn/world-vision/png
\(^11\) Telikom PNG Corporate Plan 2009
1.17.8 Security and International Relations

1.17.8.1 Social Security

1.17.8.1.1 Improve Papua New Guinea’s ranking from 158 out of 180 countries\(^{12}\) on the Corruption Perception Index to a ranking of above 50;

1.17.8.1.2 Maintain a ranking of 50 on the Crime Index Ranking\(^{13}\) out of countries surveyed;

1.17.8.1.3 Improve police personnel-population ratio from 1:1\(^{14}\) to 1:450 (UN benchmark is 1:450);

1.17.8.1.4 Provide 100 percent management capacity building for the Correctional Service; and

1.17.8.1.5 Negotiate bilateral and multilateral support for Vision 2050.

1.17.8.2 National Security

1.17.8.2.1 Provide 100 percent capacity building for the National Intelligence Organisation to monitor internal and external hostile activities;

1.17.8.2.2 Ensure that the Customs Office and the National Agriculture Quarantine and Inspection Authority provide 100 percent quality assurance of all inbound imports and outbound exports;

1.17.8.2.3 Allocate funding to the security forces for relevant infrastructure, including applications of space science and technology, to facilitate internal and external border surveillance covering sea, land, and air borders; and

1.17.8.2.4 Allocate funding for the relevant state agencies to assist the security forces in border enforcement.

1.17.8.3 International Relations

1.17.8.3.1 Redirect all foreign aid to nationally determined priorities;

1.17.8.3.2 Establish Trade Commission Offices in relevant countries;

1.17.8.3.3 Increase bilateral relations with the rest of the world and relevant international organizations; and

1.17.8.3.4 Ensure that Papua New Guinea’s Foreign Policy reflects the national interest.


\(^{14}\) PNG Constabulary Policy Submission 2009 – File No: 50-17-18
1.17.9 Environmental Sustainability and Climate Change
1.17.9.1 Reduce greenhouse emission by 90 percent to 1990 levels;
1.17.9.2 Assist the majority of Papua New Guineans to become resilient to natural and human disasters and environmental changes;
1.17.9.3 Establish a Sustainable Development Policy in all sectors, especially forestry, agriculture, mining, energy and oceans by 2015;
1.17.9.4 Develop mitigation, adaptation and resettlement measures in all impacted provinces by 2015;
1.17.9.5 Conserve biodiversity at the current five to seven percent of the world’s biodiversity;
1.17.9.6 Establish a total of 20 national reserves, wilderness areas and national parks;
1.17.9.7 Establish at least one million hectares of marine protected areas;
1.17.9.8 Conserve and preserve cultural diversity;
1.17.9.9 Provide 100 percent power generation from renewable energy sources;
1.17.9.10 Provide 100 percent of weather and natural disaster monitoring systems in all provinces;
1.17.9.11 Integrate environmental sustainability and climate change studies in primary, secondary and national high school curricula; and
1.17.9.12 Establish an Institute of Environmental Sustainability and Climate Change.

1.17.10 Spiritual, Cultural and Community Development
1.17.10.1 Increase the role of churches in the provision of basic health services from the current 46 percent;
1.17.10.2 Increase the role of churches in the provision of basic education services from the current 50 percent;
1.17.10.3 Increase the role of churches in secondary schools from the current 30 percent;
1.17.10.4 Increase the role of churches in vocational schools from the current 41 percent;
1.17.10.5 Regulate the production and sale of gender discriminatory songs;
1.17.10.6 Regulate foreign television and newspaper advertisements; and
1.17.10.7 Develop a clear NGO-Government Partnership Framework.
1.17.10.8 Establish a Center for Civil Society

1.17.11 Strategic Planning
1.17.11.1 Legislate for an independent entity to monitor and evaluate the implementation of Vision 2050;
1.17.11.2 Ensure the alignment of the Long Term Development Strategy and the Medium Term Development Strategy (MTDS) with Vision 2050, following the principle of cascading logic;

1.17.11.3 Ensure that the development strategies and operational plans of all provinces, districts, and local-level governments are aligned with Vision 2050;

1.17.11.4 Ensure that there is inter-provincial and cross-boundary economic corridor planning;

1.17.11.5 Ensure that all sectoral strategies are aligned with Vision 2050;

1.17.11.6 Ensure that all state agencies’ corporate plans are aligned with Vision 2050;

1.17.11.7 Ensure that all bilateral and multilateral arrangements are aligned with Vision 2050;

1.17.11.8 Ensure that foreign and trade policies are continuously aligned with Vision 2050;

1.17.11.9 Ensure that the public is fully informed about the implementation and progress of Vision 2050;

1.17.11.10 Develop and introduce a Citizens Report Card;

1.17.11.11 Establish a National Information Database Management System;

1.17.11.12 Establish an Institute of Strategy and Competitiveness;

1.17.11.13 Establish Regional and Provincial Town and City Planning Boards;

1.17.11.14 Ensure that all surplus and unspent government funds are transferred to the Bank of Papua New Guinea; and

1.17.11.15 Complete a performance-based contract for all heads of government agencies;

1.18 Public Investment Budget Strategy

The Public Investment Budget Strategy will comprise:

1.18.1 Education (20%);
1.18.2 Health (20%);
1.18.3 Infrastructure (25%);
1.18.4 Wealth Creation and Trade (15%);
1.18.5 National Security (5%);
1.18.6 Environment Sustainability and Climate Change (5%);
1.18.7 Spiritual, Cultural and Community Development (5%); and
1.18.8 Research and Development (5%).
Enabling Statement: Ensuring a Systemic Change

1.19 Leadership

1.19.1 Political Leadership: To achieve transformational and systemic change, as envisioned under Vision 2050, political leadership is critical. First, the success of Vision 2050 depends significantly on the cadre of political leadership and its commitment to implementation. Second, it will be incumbent upon all citizens to elect good leaders to public office. Third, effective systems and processes should appoint trustworthy leaders to the helm of every institution and service delivery mechanism of the State. Fourth, the State will need to groom future leaders as part of its strategy to ensure the smooth transition of Vision 2050, from one generation to the next.

1.19.2 Bureaucratic Leadership: The effective and efficient implementation of Vision 2050 will demand honest, innovative, proactive and inspiring leadership from all heads of departments, middle-level managers and lower-level managers. Effective coordination with the political leadership is critical to ensure systemic change. A culture of excellence in the public sector, based on the core values of quality, productivity, discipline, accountability and professionalism will enable the implementation of Vision 2050.

1.19.3 Private Sector Leadership: Institutions in the private sector as development partners, must be socially and ethically responsible in the conduct of their business, for the collective good of the nation.

1.20 Human Resources

1.20.1 The success of Vision 2050 is contingent upon the competencies of the country’s workforce. A well educated, healthy, appropriately skilled, and honest workforce that is committed, proactive and innovative is the kind of workforce required to implement Vision 2050.

1.21 Legislation

1.21.1 To realise and secure the objectives of Vision 2050 anchorage in Law must be instituted.
1.22 Finance

1.22.1 The financing of Vision 2050 in the first ten years is critical to ensure that there is effective service delivery and citizen involvement. Substantial financial resources must be allocated to implement Vision 2050. Income that is earned from all natural resources, by law, must be tied to fund priority pillar programs, such as human and social capital development (education and health), infrastructure and other key priorities. Resource developers and multinationals must assist in the development of viable, lasting infrastructure, agriculture, training of human capital, and other community service obligations in the areas in which they operate.

1.22.2 Economic windfalls must be quarantined for investment opportunities. For example, stabilisation funds for major cash crops and micro-financing must reach the bulk of the rural population in order to make cash available for rural farmers to participate in small-scale economic activities.

1.23 Infrastructure

1.23.1 The development of high quality infrastructure is critical to ensure that there is effective service delivery. The construction and maintenance of a high quality transportation and communication networks will create economic corridors and increase the movement of public goods and services and develop trade in general.

1.24 Service Delivery Mechanism

1.24.1 The public service machinery needs to be realigned and streamlined to implement Vision 2050. A major initiative would be the re-enforcement of the Public Service Retirement Policy to enable recruitment of graduates. There is currently an ageing work force in key departments such as police, nursing, teaching and other service agencies. The graduate scheme within the public service needs to be expanded and all government departments must recruit through the Public Service Graduate Development Program.

1.24.2 The piloting and development of an appropriate service delivery model is a critical component of Vision 2050. As there are slight variations in the size of districts, coupled with the breakdown of established systems and inconsistencies, a thoroughly prescribed service delivery model, which is based on research and development, would be an ideal contribution.
1.25 Citizen Participation

1.25.1 The successful realization of Vision 2050 depends on the level of citizen participation and ownership. It is the citizens of PNG who will ensure that the country is pegged among the top 50 countries in the world by 2050. The key to ensuring that we achieve this target is education. An educated person can make the necessary contributions that are needed for development and has wider opportunities and more life options from which to choose. It is now imperative that community colleges, vocational schools and technical colleges are expanded to increase the knowledge and skills bases in the country. The next key is to increase access to finance, land and other resources, which will increase citizen participation. Finally, family and community units must be involved in instilling good ethics and values to improve the character of our people. An engaged population will develop positive mind-sets and become purpose-driven, motivated and contribute positively to their families, community and the country.

1.26 Monitoring and Accountability

1.26.1 The implementation of all programs must be monitored to gauge progress and accountability. Transparency will further encourage and enhance progress and participation from the people. Incremental successes along the way, when correctly monitored and accounted for, will encourage more positive actions and results.

1.26.2 A monitoring and accountability strategy will have to be developed to ensure that Vision 2050 is achieving its intended purpose through strategic planning initiatives.
CHAPTER ONE: WHY A 40-YEAR VISION 2050?

Brief Facts about Papua New Guinea

1. Papua New Guinea is located in the south-west region of the Pacific Basin and lies to the north of Australia. It shares a border with Indonesia, through the island of New Guinea. Papua New Guinea’s total land area is 461,690 square kilometres with a mixture of tropical forests, savannah grass plains, big rivers and deltas, swamps and lagoons and numerous islands and atolls to the east and north-east of the country. Other main islands in the country are New Britain, Bougainville, New Ireland, Manus and Milne Bay islands. The country has a population of approximately 6.5 million people who speak a total of over 800 languages.

2. The isolation of the island of New Guinea from the Western world and its formidable terrain were obstacles to urbanisation the development of commerce, trade and industry until after the Second World War. When the country became self-governing in 1973, it was a prime example of a dual economy, with a small, industrialised sector that included enclave mining development and a dominant traditional agricultural sector.

<table>
<thead>
<tr>
<th>Independence:</th>
<th>16 September 1975</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital:</td>
<td>Port Moresby (population approximately 375 000)</td>
</tr>
<tr>
<td>Population:</td>
<td>Approximately 6.5 million</td>
</tr>
<tr>
<td>Land Area:</td>
<td>461,690 km².</td>
</tr>
<tr>
<td>Religion:</td>
<td>Predominantly Christian</td>
</tr>
<tr>
<td>National Parliament:</td>
<td>Unicameral chamber with 109 elected seats</td>
</tr>
<tr>
<td>Government Structure:</td>
<td>Westminster system; one central government; 22 provinces</td>
</tr>
</tbody>
</table>

Box 1.1: Papua New Guinea in Brief

A Brief History of Development Planning

3. Serious thinking about development planning in the then Territory of Papua and New Guinea first evolved from the recommendations of the Foot Mission which was sent from the United Nations in 1962. The Foot Mission bemoaned the lack of development of the indigenes and called for a development plan to be implemented sooner, rather than later. In response, the World Bank designed a five-year development plan in 1964 for implementation by the Australian colonial administration. This plan was not implemented until the latter part of the 1960s. The development strategy focused on key economic growth sectors, including plantation agriculture, forestry and livestock development. Mining at that time was negligible.
4. Before self-government in 1973, the Chief Minister, Michael Somare, commissioned the development of what became known as the Eight Aims. The Eight Aims were to procure the equitable distribution of benefits and power in order to allay potential political upheaval. This was based on the view that the indigenes were increasingly being marginalised in terms of political and inclusive economic participation. Economic growth was assumed, but not emphasised. The Eight Aims later became popularly known as the Eight Point Plan.

5. The Eight Point Plan was a statement of intent by the founding fathers of our nation who wanted to build a peaceful and harmonious society, as well as to prosper and empower our people. The Eight Point Plan’s intents are timeless. They were very relevant then and remain relevant now in our endeavour to grow and advance this nation.

   The overall objectives under the Eight Point Plan are:
   
   - increased indigenous participation in the economy;
   - equality amongst ethnic groups, gender, and areas;
   - greater attention to rural and village development; and
   - self-reliance.

6. The new Central Planning Office (CPO) was tasked to operationalise the Eight Point Plan. The first attempt was the National Development Strategy which was launched on 27 October 1976. This was followed by the National Public Expenditure Plan (NPEP), which ran from 1978-1986, followed by a series of Medium Term Development Strategies, based on five-year cycles.

**Socioeconomic Development Experience**

7. Pre-independence Papua and New Guinea experienced moderate population growth, relative peace and enjoyed a high degree of subsistence affluence. The socioeconomic status of the indigenous people, which was evident during the colonial period, was not viewed through the lens of poverty. It was perceived as being ‘primitive’ rather than ‘poor’, as per modern day definitions.¹⁹

8. Because of the need to negotiate the interests of a people who speak more than 800 different languages and have limited policy development experience, economic progress and the adoption of timely policy reforms have been slow and inconsistent.

9. Socioeconomic data indicate that Papua New Guinea’s development experience over the past 34 years (2009) (particularly from 1989) has been unimpressive.

**Economic Performance**

10. An early prognosis of our present economic challenges was ably made by Goodman, Lepani, and Morawetz (1985:3), who observed in the mid-1980s that, "...the rate of growth of aggregate output has been relatively slow; creation of new job opportunities has fallen short of the increase in the numbers seeking jobs; and the gap between richer and poorer provinces and between urban and rural sectors has widened...".

11. Economic data indicate that Papua New Guinea’s development experience over the past 34 years has been unimpressive. PNG experienced negative Gross Domestic Product (GDP) growth in 1989, 1990, 1995, 1997, 2001, and 2002. During the period 1981 to 1988 real GDP grew at 2.4 percent per annum, which barely outstripped the population growth rate of 1.9 percent. Real GDP per capita grew at a very modest rate of 0.5 percent annually. The closure of the Bougainville Copper Mine in 1989 brought an end to a period of relative stability – one that PNG had enjoyed since independence. The economy contracted by an average of 2.2 percent during this period and real GDP per capita contracted, as a result, by 1.6 percent. Over the ensuing period (1991 to 2002), the economy recorded an average real GDP growth rate of four percent and real GDP per capita averaged a modest 0.9 percent.

12. In comparison, Malaysia for example, averaged a real GDP growth rate of 6.5 percent for the same period. Malaysia’s experience with the Asian financial crisis of 1997 triggered a significant structural transformation of its economy that has kept it in good stead. In contrast, the Bougainville crisis and low commodity prices in the 1990s led to severe balance of payment (BOP) problems for PNG from 1994. Major structural reforms to the economy did not occur until 1999, with the assistance of the World Bank and International Monetary Fund (IMF) sponsored structural adjustment programs (SAPs).

13. The structural reform program included the privatisation of state-owned enterprises (SOEs), the introduction of a competition policy, a tariff reduction program (TRP), financial reforms, reforms at improving other aspects of the business environment and infrastructure improvement programs. Fortunately, the country has seen a real GDP growth recovery from 2.2 percent in 2003 to 7.2 percent in 2008. Despite the recent economic recovery, Papua New Guinea’s per capita income of approximately US$ 403 in 2003 has not improved much.

14. Despite the positive economic growth that was experienced in the periods 1981 – 1988 (modest growth), 1991 – 1994 (high growth), and 2003 – 2008 (recovery and sustained growth), this has not translated into improvements in our social indicators. Papua New Guinea’s global Human Development Indicators (HDI) ranking dropped from 128 out of 175 countries in 1994 to 145 out of 179 countries in 2005. This reflects our worsening social indicators and marked improvements in other countries’ socioeconomic indicators as a result of doubled national efforts. In fact, PNG lags behind other regions of the world, except Sub-Saharan Africa.

Poverty, which is defined as a lack of access to basic services and infrastructure, as well as access to income and income-earning opportunities, was assessed by the World Bank (2007), which estimated that some 53 percent of the population now live below the international poverty line. This means that people are earning an income of less than US$ 1 per day (using 1993 Purchasing Power Parity). In 1996, some 25 percent of our people lived below the poverty line, but in 2006 this rose to 37 percent. Progress in achieving the Millennium Development Goals (MDGs) has also been challenging. PNG has either not made progress or has lagged behind on seven of the eight MDGs. The worsening social indicators were not helped by the prolonged economic contraction experienced between 1995 and 2002.
The Rationale for Vision 2050

15. The lack of progress to date is largely because of:

- the absence of long term and clear strategic actions in development plans;
- the poor foundation inherited at independence, coupled with poor governance in later years;\(^{20}\)
- lack-lustre economic performance, particularly during the periods 1989 – 1990, and 1995–2002; and

All of these factors point towards the critical need to chart a new development course, hence the rationale for Vision 2050.

16. The basis of Vision 2050 is embedded in the Constitutional Planning Committee (CPC) Report (1974), which makes direct reference to the need for a long-term development strategy to achieve the Eight Aims. The Constitution takes up this challenge by directly institutionalising the National Goals and Directive Principles in its Preamble. The CPC Report (Chapter 2, Section 4), specifically states:

\[\text{We leaders and people must know where we want to go before we can decide how we should get there. Before a driver starts a motor car, he should first decide on his destination, otherwise his driving will be without purpose, and he will achieve nothing. We Papua New Guineans are now in the driving seat. The road which we should follow ought to be marked out so that all will know the way ahead.}\]

17. Moreover, the CPC Report (Chapter 2, Section 5) states:

\[\text{Now is that historic moment in our search for identity and self-fulfilment to take the necessary measures to make substantial changes in all of our institutions, to create new ones, and to redirect development when things are fluid and tractable. But for us to know clearly what measures should be taken, our objectives must be clearly established.}\]

18. Vision 2050 attempts to ‘decide on a destination’ for Papua New Guinea in order to fulfil the dreams of our founding fathers and put the right mechanisms in place to direct this long-term development plan.

19. Although the country’s forefathers had a clear vision for the nation at Independence, the journey towards achieving that vision was hampered by a lack of clear strategic actions in the ensuing development plans. The Prime Minister, Grand Chief Sir Michael Somare, announced in October 1975 that the Eight Aims would be rather ‘clumsy’ and ‘impracticable’, if they were not actionable.\(^{21}\) A key strategy that he called for was ‘\text{industrialisation to advance economic development through foreign investment’}.\]

20. The challenge for Vision 2050 is to ensure that we progress the development of an overarching vision with clear, achievable strategic actions to consolidate the gains that have been made and to secure our future well-being by building internal capabilities. Papua New Guinea’s future should at least be controllable and not left to chance. The challenge, therefore, is one of arresting the recent development decline, stabilising the situation and charting a pathway that provokes and engenders sustainable growth, well into the future.

\(^{20}\) When the World Bank reviewed development progress in the early 1980s, it noted that corrupt practices were negligible (see Berline Report).

\(^{21}\) Samana (1988).
21. Based on our ongoing nation-building experiences, critical lessons have been learned and are now guiding the development of Vision 2050:

- Papua New Guinea needs a vision to guide, monitor and evaluate medium term development plans over a longer period;
- Papua New Guineans must adopt noble values, a positive attitude and learn to become powerful forces and change agents for development and nation building;
- Papua New Guinea must set minimum standards for its institutions and systems so that their integrity is not compromised. They must be compelled and committed to continue to deliver high quality services to all citizens at all times, particularly in tough economic times;
- having an abundance of natural resources does not make nations socially poor or prosperous;
- race or skin colour does not make nations socially or economically poor or prosperous; and
- the difference must be in our attitude, positive mind-sets, dedication and commitment to pursuing sustainable socioeconomic development.

22. **Summary**

In creating the 40 year development vision, Papua New Guineans have to be smart and ensure that the Vision 2050 platform is grounded and secured in the first ten years; that is, between 2010 and 2020. Reasonable projections and key tangible outcomes must be achieved during this period in order to enhance the outcomes for 2020 to 2050. Taking into account the rapidity and nature of change taking place in this century, it is prudent to recommend that the next generation must review Vision 2050 by 2019 in order to design and set new targets for the period 2020 to 2030, with ensuing reviews in 2029 and 2039.
CHAPTER TWO: CURRENT SCENE AND FUTURE SCENARIOS

1. Reflecting on our past experiences up to 2009 provides the basis for identification of the weaknesses, strengths, opportunities and challenges that will shape a strategic vision. Taking stock of the current economic, social and political environments, we look at possible scenarios that the country will follow, especially in the next ten years – 2010 to 2020. During this period, the problems must be fixed, reforms undertaken and the foundation set for 2020 to 2050.

2. Current Scene, 2007-2009: At the macro-level, Papua New Guinea has made much progress towards arresting the decline in service delivery, political and economic stability and economic growth through wealth creation. However, it has yet to reach maturity in many aspects of government in order to ensure that systems are run on standard operating procedures (SOPs), which will lead to robust institutional development, without undue political intervention and speed up outcomes. Therefore, our challenges remain multifaceted and confront both process management issues and innovation endeavours to new emerging issues. At the micro-level, particularly in regard to service delivery and infrastructure provision, the gains in macro-management have not trickled down. This is the real challenge for contemporary PNG.

2.1 Strengths: The stability signs are encouraging. First, legislative reforms have improved continuity in government, with the 2002 to 2007 Government being the first to serve a full five-year term in the country’s political history. The same government is on course to complete a second full term, up to 2012. Second, economic decline has been arrested through a combination of high global commodity prices, sound macroeconomic policies and improved fiscal discipline. Third, there is now better alignment between the Government and international donor strategies through the Medium Term Development Strategy (MTDS) 2005-2010, which bodes well for long-term planning. Fourth, external relations are relatively stable.

2.2 PNG enjoys a cordial working relationship with traditional partners such as Australia and is pursuing expanded trade links with East Asia, China and India. PNG realises that its national interests could be best served by exploring growing regional markets through the Asia Pacific Economic Cooperation (APEC) Forum, the Association of South-East Asian Nations (ASEAN) Forum, and greater bilateral relationships with countries that offer the greatest potential markets for Papua New Guinea’s trade and commercial interests. In essence, some of these markets are far beyond the borders of the South-West Pacific. Fifth, because of our rich environment and biodiversity, global attention will increasingly focus on PNG during the next 40 years, as global temperature increases. Significant wealth could be gained from our environment, if it is exploited in a responsible and sustainable way. An increase in global temperature by 2 degrees Centigrade will make life on earth unbearable for many regions.

2.3 Challenges and Strategies: Contemporary PNG is currently experiencing many new challenges as well as old ones, which, if not resolved by this current generation, will haunt the next generation. An assessment of the country’s progress towards improved HDI ranking shows that, although progress towards improved real GDP per capita is highly possible in the Vision 2050 period, the real challenges will remain in the areas of improved life expectancy and school enrolment and literacy rates. Progress in these areas is contingent upon a number of factors — efficient, effective, and equitable service delivery, basic infrastructure, and job creation — particularly for youths through economic growth, equitable distribution of resources and wealth, and an overall improvement in the enabling environment for development.

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The challenge is:

*How do we ensure that Papua New Guinea’s natural wealth is exploited and primary products are processed responsibly, and that derived revenues are used equitably, transparently and efficiently to arrest service delivery decline and above all, create the foundations for employment and broad-based growth for the next 40 years and beyond?*

2.3.1 **Deteriorating Infrastructure:** PNG enjoys substantial natural wealth and has experienced growth in total output and GDP per capita during the past six years (see Figures 3.1 and 3.2). However, with deteriorating transportation, education and health infrastructure, and increased poverty, the country has not fared well in the Human Development Index. Much of the current growth has been driven by high international commodity prices of mineral, forestry and agriculture, prudent macroeconomic management and business confidence in the private sector.

2.3.2 The bulk of the people are in the informal sector, which is dominated by subsistence and semi-subsistence activities. Economic growth has not resulted in broad-based economic development involving ordinary citizens. Therefore, income growth and distribution in PNG has been highly skewed. Basic services and infrastructure have deteriorated, as confirmed by the raw data collected by the National Strategic Plan Taskforce from the extensive country-wide district visits. Moreover, formal systems for public resources distribution and public service implementation have collapsed and are now subjected to political capture through patron-client relationships, with the increasing danger of collapsing situations reinforcing wider patron-client relationships.

2.3.3 **Political Stability:** Political institutions and processes are beginning to stabilise after decades of volatility and uncertainty. Although the *Organic Law on the Integrity of Political Parties and Candidates* (OLIPPAC) was passed in 2001 restricting post-election changes in party allegiance, there is always the danger that the OLIPPAC could be easily amended to suit political interests. If the current stability results in greater predictability, efficiency and accountability in national politics, this will be hugely beneficial for the people of PNG through Vision 2050.

2.3.4 **Law and Order:** A related factor to political stability is that although internal stability has improved with the return of peace in Bougainville, ‘law and order’ is perceived as a serious national issue. Law and order issues remain a threat, both in practice and perception and could undermine national interest and security. The Independent State of Papua New Guinea should reassert its monopoly of the use of force to guarantee internal security and build the basic platform for human security against natural disasters and disease patterns.

2.3.5 **Vulnerability to External Shock:** Papua New Guinea’s economic recovery has accelerated in recent years, with significant surpluses in the external account sufficient for at least eight months of non-mineral merchandise import cover (2007-2009). The country’s vulnerability to external shocks, such as commodity slumps, calls for the prudential maintenance of a higher level of foreign exchange than in many other countries that rely on high value-added exports. We should never repeat the experience of 1994 where, at one point, international reserves were sufficient for only one week of non-mining import cover.
2.3.6 **Structure of the Economy**: PNG is a resource-rich country which has substantial environmental biodiversity that can critically influence global survival. Based on these resources, the country has the potential to leverage for a 70:30 percent reorientation of the structure of the economy towards a renewable resource base, rather than its current heavy dependence on extractive industries, such as minerals and petroleum. However, Papua New Guinea’s natural resources and their contribution to economic growth remain vulnerable to governance and management weaknesses, unsustainable practices, natural disasters and biosecurity threats.

2.3.7 **Public Finance Management**: The application of public financial management practices is based on a sound legislative and procedural framework, but weaknesses in implementation undermine accountability and budget credibility. Although established systems and processes are in place, they are not always followed and breaches are not effectively penalised. The National Economic and Fiscal Commission (NEFC) notes that the lack of transparency in budget execution makes it difficult to track expenditures. A generally weakened overseeing body — the Central Agencies Coordinating Committee (CACC) — has allowed different ministerial committees to direct the flow of public finance away from budget appropriations.

The weak alignment between development and the recurrent budget, together with constricted recurrent spending means that there is a declining recurrent fund to deliver services and carry out development budget programs. The practice of ‘parking funds’ in trust accounts further diminishes budget transparency and enables a redirection of government priorities in mid-stream. Moreover, flaws in the decentralisation framework further undermine the service delivery platform that is critical to majority of Papua New Guineans.

2.3.8 **Corruption**: Corruption remains the biggest threat to the success of Vision 2050. PNG now ranks 151 out of 180 countries in Transparency International’s Corruption Perceptions Index (2008), compared to its ranking of 118 out of 133 countries in 2003. Inadequate capacity among oversight audit and enforcement agencies is the major cause. The systems and processes are not the problems; it is the increasing lack of widespread respect and compliance within the community and leadership level. The continued freedom of the press in PNG has ensured that there is a significant and growing demand for good governance.

2.3.9 **Policy Lapses**: Policy lapses over the past two decades have resulted in 53 percent of the country’s population now (2009) living below the national poverty line. In this sense, poverty is largely a rural phenomenon for 85 percent of the population. To complicate things, approximately 55 percent of adults remain illiterate and therefore have no input into the country’s formal systems. Failure to adopt an inclusive development and people-centred socioeconomic empowerment strategy to lock in this segment will result in problems of unimaginable proportions.

2.3.10 **Working-Age Population**: An estimated six percent of the working-age population in PNG are employed in the formal sector (2002), compared to Solomon Islands (9%) (2002), Vanuatu (15%) (2004), Fiji (25%) (2003), and Samoa (63%) (2001). With a population growth of 2.7 percent per year, the job creation challenge becomes mission critical, particularly because of the link between youth, limited educational opportunities, unemployment and lawlessness. By 2050, Papua New Guinea’s population is expected to be approximately 18 million. Relevant education and job creation, therefore, should be the government’s strategic and political priority.

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2.3.11 **Small-Scale Manufacturing**: Agriculture, fishing, community forestry, artisanal and small-scale manufacturing and mining are important sources of subsistence and cash income in rural PNG. Income-earning opportunities through micro, small and medium enterprise development ventures are constrained by an unfriendly investment climate, and absence of entrepreneurial and relevant technical and managerial skills. There are about 100 000-120 000 micro-enterprises, 12 000-15 000 small businesses, and 3 000-3 500 medium enterprises that need to evolve into the formal sector. Somewhere between 250 000 and 500 000 people participate in coastal subsistence fisheries and a similar number benefit from artisanal and small-scale mining and manufacturing activities.

2.3.12 Subsistence agriculture and forestry ventures play a critical role in enhancing rural livelihoods and the cultural lives of many. Expansion of these income-earning opportunities is hampered by limited and expensive access to inputs and markets, poor infrastructure, ineffective extension services, limited access to credit and safety and security concerns. The World Bank (2009) ranks PNG 95 out of 183 economies, which is down from 84 out of 178 economies in 2008, in terms of ‘doing business’.

2.3.13 **Conducive Business Environment**: The tariff reduction program and other structural reforms were introduced in 1999. However, the Government and its responsible agencies have been slow in facilitating a conducive business environment to overcome the following issues:

- the law and order situation leading to high security and insurance costs;
- poor infrastructure, particularly transport infrastructure;
- high transportation costs, especially coastal shipping and airlines;
- ineffective customs services;
- high utility costs; and
- unfavourable pricing arrangement for certain inputs, such as fuel products.

2.3.14 Trade liberalisation, preceded by domestic structural reforms, will result in lowering the cost of doing business and will lead to efficiency and higher productivity. Local industries, and the manufacturing industry, in particular, have been vocal about this. This is a challenge that needs to be urgently addressed.

2.3.15 **Access to Health Services**: Health outcomes have lagged far behind accepted standards in the past decade. The serious threat of HIV/AIDS combined with a faltering health system, flags severe consequences. Government sources estimate that 1.28 percent of the population is living with HIV/AIDS (2007).

2.3.16 **Access to Education**: Access to education has improved marginally. More improvement is required, not only in terms of accessibility, but also in terms of quality, efficiency and equity. Arising from the 1993 national education reform, enrolment rates have tripled and have outstripped educational resources and institutional capacity. Gross enrolment rates have remained at 75 percent, which is well short of the goal of Universal Basic Education (UBE). Girls account for some 45 percent of enrolments in the basic education cycle, but their proportion drops to 40 percent by Grade 10, and 35 percent by Grades 11 and 12. Literacy rates among youths are low at 67 percent.

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24 See Kavanamur (2002).
2.3.17 **Service Delivery:** Given service delivery complexities, progress towards the Millennium Development Goals targets will certainly remain out of reach, well beyond 2015, unless the basic platform for arresting the decline in service delivery, infrastructure and income distribution is laid, during the first ten years of Vision 2050. Political will is critical for service delivery.

2.3.18 **Gender Inequalities:** Significant gender inequalities remain a concern in PNG. However, there is a high possibility that the National Parliament will approve seats for women, commencing in 2012. At the Vision 2050 Leaders’ Summit in Lae, Morobe Province, on 14-16 August 2009, provincial governors, together with the Prime Minister, Grand Chief Sir Michael Somare, resolved to endorse the proposal to have women’s seats.

2.3.19 **Increasing Youth Population:** PNG faces a challenging future if it does not seriously address the education and employment demands of an increasing youth population. Approximately 50 percent of the population is under 20 years of age and this proportion is expected to increase dramatically in the next twenty years. The development of special youth programs, such as education, vocational training, community development programs and economic empowerment, should be considered as mission critical.

2.4 **Opportunities:** Against the backdrop of these formidable challenges, considerable opportunities for progress are available to Papua New Guinea to arrest the decline in human development outcomes, stabilise the situation and grow the economy for future prosperity through Vision 2050. A key opportunity exists to adopt a ‘focus’ strategy on resource and manufactured-based exports to ensure that it is accountable and sustainable and brings strong initial growth between 2010 and 2020. Once there is strong growth in the extractive industries and the renewable resource-based exports, it is critical to use the income to diversify the economic base.

2.4.1 Opportunities exist in food production for the domestic market, high value export crops, developing import-competing industries and plantation forestry while preserving ancient forests. These are also opportunities in downstream agro-industry, small-scale and light manufacturing, tourism and the service industry.

2.4.2 Artisanal and small-scale economic activities in fishing, mining and village-based forestry are also good prospects. Improving the investment environment and adopting economic corridor planning across the country will greatly promote the non-mineral sector and drive social and economic growth. In this regard, land reform will be critical. Ensuring that there is accompanying good governance and sound public financial management will ensure that there is equitable economic growth and efficient service delivery.

2.5 **Future Scenarios:** Given the *qualitative and quantitative* data which indicate the status of the present socioeconomic situation, one can extrapolate different future scenarios. The qualitative data paint a picture that, if the status quo prevails for a few more years, then major social upheavals can be expected, as existing social safety nets which are based mainly on the *wantok system*, are overstretched, as average household sizes range between 10 and 20 members.
2.5.1 There is an increasing sense of despair within rural and urban communities, as access to services dwindle and economic opportunities for the youthful population become evasive. Vision 2050’s district consultation data indicate that people have lost confidence in the system which is supposed to deliver services on their behalf. The rural populace’s confidence in the education system, as a ticket for job opportunities, is on the wane because the educational highway for many ends at Grade 8. There is an acute awareness of the increasing divide between urban and rural areas, in favour of urban dwellers, with an emerging perception of a ‘them versus us’ scenario. There were open discussions about how rural wealth is being siphoned off to urban communities for their use, at the expense of rural and remote dwellers.

2.5.2 Anti-foreign ownership sentiments are rising because of their dominance of business, which is creating an entrepreneurial gap between locals and immigrants. Amongst the older generation, was heard a nostalgic longing for the ‘gut taim bipo’, when the ‘colonial masta’, through the kiap system, delivered services and infrastructure with little manpower and money. Through the many consultations, villagers expressed the view that all they needed was for the national government to just send them the money so that they could conduct their own service delivery, using mainly the churches, their own labour and other community-based organisations.

2.5.3 What must be done during the next ten years (2010 – 2020) to arrest and stabilise the situation? The State will require strategic planning, better service delivery and improved governance. Furthermore, identification and training of human capital, tariff reduction, increased trade, education reform and implementation, downstream processing and manufacturing and land reform must be undertaken. Impact projects in the 89 districts must also be carried out to build the base for growth during 2010 to 2020 and set the foundation for future years.

2.6 Four Possible Pathways for the Economy: There is always uncertainty when we look into the future. To account for this, four economic scenarios are provided on the possible paths the Papua New Guinean economy should take from 2010 to 2020 in relation to economic growth, supported by the seven Strategic Focus Areas of Vision 2050:

- the Base Case;
- Land Reform;
- Liquefied Natural Gas (LNG) Project; and
- Cumulative Scenario.

The Base Case is the minimum growth path possible. If either the land reform agenda or the Liquefied Natural Gas project is implemented, or if both are implemented, each will add incremental and transformational benefits to the base path. The cumulative scenario is one where all the activities of the first three scenarios take place simultaneously; that is, one that combines the effects of the other three scenarios.

2.6.1 Base Case Scenario: A 2009 National Research Institute (NRI) study projected that, from 2010 to 2020, the Papua New Guinean economy will grow by two percent in real terms per year. This growth rate is possible through human resource development, the development of new technologies and adoption of more efficient production methods and downstream processing. It takes into account the schedule of declining oil reserves up to 2013, moderate recovery in the global economy between 2010 and 2013 from the current global recession, recovery in oil production after 2013 and the World Bank’s projections on commodity prices. Vision 2050 will emphasize economic growth and wealth creation through downstream processing, enhanced manufacturing activity, improved infrastructure, delivery of goods and services, increased
interconnectivity and increased trade. This would result in an average increase in growth from two percent to 4.5 percent in real GDP per year. Downstream processing in forestry, agriculture and fishing alone can add significant value to Papua New Guinea’s GDP.

2.6.2 In cumulative aggregate terms, Papua New Guinea’s real GDP will rise from an estimated K8.9 billion in 2008, to K15.1 billion by 2020. This does not include the LNG project and any other policy initiatives. Per capita income should be K1 819.60 by 2020.

2.6.3 Land Reform (with Base Case) Scenario: With the inclusion of the implementation of ‘land reform’, the economy can grow by an additional 1.2 percent in real terms each year (moderate impact), if some three percent more of total customary land is brought into production in the formal sector. Cumulatively over the years, this will translate into an additional K3.0 to K4.5 billion to the GDP (in addition to the K15.1 billion in the Base Case), by 2020. Total real GDP will be approximately K18.5 billion by 2020. Underpinning this improvement will be broad-based higher investment and exports and consumption in the non-mineral sectors such as agriculture, forestry, fisheries, manufacturing and services. Per capita income is projected to reach K2 220 by 2020.

2.6.4 LNG Project (with Base Case) Scenario: With the inclusion of the Liquefied Natural Gas project, Papua New Guinea’s real GDP growth will be even higher. It has been estimated that real GDP per year will be K18.2 billion, which is approximately K9 billion above current annual GDP\(^{26}\). A more conservative incremental increase estimate of K5 billion per year, on average, is taken. Real GDP will reach K20.1 billion by 2020. Per capita income is projected to reach K2 420.50 by 2020.

2.6.5 Cumulative Scenario (with Base Case, Land Reform and LNG Project): This is the scenario where land reform and the LNG project occur simultaneously with the Base Case. It is the most desirable scenario, as the benefit streams from both land reform and the LNG project accrue because of a concerted effort to start land reform by 2010 and the LNG project to commence production by 2014. It is in the national interest for this scenario to be pursued, as it will yield a real GDP of K23.5 billion by 2020. Per capita income is projected to reach K2 820.90 by 2020 (see Figure 2.1). This scenario does not take into account the contributions of new mining, petroleum and gas projects that have already commenced or may come on-stream during this period.\(^{27}\)

2.6.5.1 By 2020, Papua New Guinea’s real GDP is projected to reach between K15 billion and K24 billion, and per capita income to be between K1 820 to K2 820. Figure 2.1 shows the projected level of real GDP for 2010, 2015 and 2020 under the four scenarios. If land reform is undertaken in 2010, real GDP will improve from K9.7 billion to K12.5 billion, which is an increase of K2.8 billion. While the LNG project would provide a huge funding relief to the Government of Papua New Guinea (GoPNG) in its efforts to stabilise service delivery and infrastructure development, Vision 2050 insists that, as a matter of strategy to reduce the incidence of poverty right across the country and improve HDI, decision makers should not relent in their push for land reform, as the multiplier effects of such a reform would reverberate throughout the country past the life-span of the LNG project. To leverage the strategic thrust of Vision 2050 towards the renewable sector (70:30 ratio) it is critical that land reform should commence in the first ten years, with further progress to be made in the remaining 30 years of Vision 2050.

\(^{26}\) (ACIL Tasman 2008)

\(^{27}\) At the time of the drafting of Vision 2050, information on InterOil’s proposed (LNG) Elk/Antelope project were yet to become available. Thus, the project is not explicitly mentioned. It is, however, acknowledged that growth in economic activity and benefits could be far greater than the figures discussed here if this and any other projects come on stream in this period.
Table 2.1 shows the desired paths of real GDP and per capita income that Vision 2050 will aspire to achieve. It should be noted that while Vision 2050’s projections are conservative, because of the need to have realistic estimates for the period, 2010-2020, the assumptions will need to be revised by a Vision 2050 review team in 2019, to take into account new mine developments, commodity price changes, the effects of climate change and other external shocks. The assumed population growth rate is 2.5 percent, which is the average between 2.3, and 2.7 percent. This appears to be an acceptable rate of growth because, over the next 40 years, at ten year intervals, population growth is expected to decline as a result of the effects of HIV/AIDS and other pandemics, the rise in global temperature of between 2 to 6 degrees Centigrade and associated risks, the degree of affluence and education amongst families and adherence to a national population policy.
Table 2.1: Four-Pronged Projected Economic Scenario, 2010-2050

Note:

1. Base Case assumes a 4.5 percent growth rate based on the experience of the past seven years and that initiatives in the seven pillars will sustain this rate of growth, including downstream processing in agriculture, forestry, and fishing.
2. The Land Reform scenario assumes a desired growth rate of six percent after 2020. From 2010 to 2020, the NRI study is used.
3. The LNG scenario assumes a desired growth rate of seven percent after 2020. From 2010 to 2020, the ACIL Tasman study is used.
4. Under both the Land Reform and the LNG project, a desired rate of eight percent is applied after 2020.

Source: NSP Core Technical Team’s Calculation/Extrapolation (2009) using the NRI Study and the ACIL Tasman Study.

2.6.5.3 The scenarios presented in Chapter 3 show an array of possibilities for PNG to attain its stated Vision 2050 economic, social and welfare targets. PNG aspires to improve its HDI from the current ranking of 148 out of 182 countries (2009). The desired progressive rankings are 123 by 2020; 98 by 2030; 73 by 2040, and 50 or better by 2050 (see Table 2.2).

2.6.5.4 PNG aspires to progressively improve its life expectancy from the current 57.9 to 77 years of age or better, by 2050. The basic education gross enrolment rate is projected to increase from 85.5 percent in 2010 to 100 percent in 2050.

Table 2.2: Strategic Target Goals for Vision, 2050

2.7 Economic growth under the four described scenarios will provide the means for the Government to deliver on its seven pillar activities. In turn, improved infrastructure, human resource development, improved health and educational facilities and institutions and improved life expectancy will empower the people of Papua New Guinea, to be wise, fair, smart, healthy and happy.
3. Summary

The lack of good governance, accountability and transparency has contributed to the deterioration in the delivery of public goods and services at the micro-level. Over the past six to seven years, there has been an improvement in macroeconomic management, which, together with the high international commodity prices have led to growth and stability in the economy. Infrastructure in the broad sense must be improved to enhance accessibility and service delivery to bring improvement to remote, rural and urban communities.

*We simply do not have any more excuses. We owe it to ourselves and the future generations to shift our attitudes and mind-set towards improving our living standards.* We are faced with an array of challenges, but we are also presented with great opportunities. The four scenarios that have been described give direction to possible ways in which we can now progress in earnest to have an impact on the lives of our people. PNG must strive for a future that is underpinned by the cumulative economic growth of all four scenarios — one that takes into account the Base Case (4.5%), Land Reform (6%), LNG project (7%) and cumulative scenario (8%) as a way to achieve our Vision 2050.
CHAPTER THREE: VISION 2050

1. **Our Intention**: Vision 2050 will transform our people and our nation by reforming our mind-set and attitudes. It is envisaged that this, will provide the direction to reform and align our institutions and systems to make ‘Papua New Guinea become a smart, wise, fair, healthy and happy Society by 2050’.

2. **Aims of Vision 2050**: Vision 2050 aims to achieve this through effective service delivery, human resource development, wealth creation and sustainable development of our existing vast natural resources which are underpinned by our shared national interests. Our national interests revolve around *security, prosperity and values*.

   2.1 Vision 2050 reaffirms and integrates the key outcomes of ‘Papua New Guinea’s Eight Point Improvement Plan’ with an additional outcome related to competitive trade positioning:

      2.1.1 The people of Papua New Guinea to play a greater role in the economy;
      2.1.2 Equality among people and areas;
      2.1.3 Much greater attention to rural and balanced regional development through effective service delivery;
      2.1.4 Serious attention to acquire characteristics of a fast developing country by shifting economic activity from primary to manufacturing, service and knowledge economies;
      2.1.5 Self-reliance; and
      2.1.6 Progressive and global competitiveness.

3. **The Framework**: Vision 2050 is derived from the National Strategic Plan Framework that was endorsed by the Government and national leaders in September 2008. The concepts and strategic direction in the framework were rigorously tested during a three-month comprehensive public consultation program in which the 89 districts were visited. Vision 2050, therefore, is the formalizing of many citizens’ dreams and aspirations of building a better Papua New Guinea for ourselves, our children and our grandchildren.

4. **Our Vision and Mission**

   **Our Vision:**

   ‘We will be a Smart, Wise, Fair, Healthy and Happy Society by 2050.’

   4.1 Being *smart* means to encourage and reward *excellence, innovation and relevance*.

   4.2 Being *wise* means that our people, our institutions and our systems will practise and uphold *transparency, accountability and good governance*. Our people and leaders will consistently make the right decisions.

   4.3 Being *fair* means that our people, our institutions and our systems will equitably distribute resources and opportunities.

   4.4 Being *happy* means our people will be *healthy, wealthy and safe*.

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4.5 Based on the development analysis of the past three decades and following the comprehensive district consultations, we believe that the best way to achieve Vision 2050 is through embracing our National Goals and Directive Principles.

5. **Our Mission Statement**

5.1 ‘We will be ranked in the top 50 countries in the United Nations Human Development Index by 2050, creating opportunities for personal and national advancement through economic growth, smart innovative ideas, quality service and ensuring a fair and equitable distribution of benefits in a safe and secure environment for all citizens’.

6. **Our Values and Guiding Principles**: Our people are the most valuable resources in our development aspirations and ongoing nation building efforts. We value ‘Integrity, Excellence, Discipline and Christian Values-Based Leadership’ and will strive to uphold these attributes at all times.

6.1 Vision 2050 embraces the five National Goals and Directive Principles contained in the Constitution as our guiding principles:

   6.1.1 Integral Human Development;
   6.1.2 Equality and Participation;
   6.1.3 National Sovereignty and Self-Reliance;
   6.1.4 Natural Resources, Resource Creation and Environment; and
   6.1.5 Papua New Guinean Ways

7. **The Strategic Direction**: Currently, our economy is dominated by the mining and energy sectors. It is estimated that these sectors contribute some 80 percent of our total export revenue.

7.1 The strategic direction for Vision 2050 is that ‘Papua New Guinea will develop and grow the manufacturing, services, agriculture, forestry, fisheries and tourism sectors from 2010 to 2050’. This direction will ensure that economic growth by 2050 will be broad-based and disposable household incomes will be much higher than at present, resulting in an improvement in our HDI ranking.

8. **Strategic Focus Areas**: Vision 2050 will focus on seven ‘Strategic Focus Areas’, from 2010 to 2050 (see Figure 3.1):

   8.1 Human Capital Development, Gender, Youth and People Empowerment;
   8.2 Wealth Creation;
   8.3 Institutional Development and Service Delivery;
   8.4 Security and International Relations;
   8.5 Environmental Sustainability and Climate Change;
   8.6 Spiritual, Cultural, and Community Development; and
   8.7 Strategic Planning, Integration and Control.
9. **Key Assumptions:** *The successful delivery of Vision 2050 is dependent on ten key assumptions:*

9.1 Political stability is strengthened and there is consistency in government policies, and sustained political will;

9.2 The current bureaucracy is not threatened by the likely changes that will occur; instead it will support and facilitate the programs in Vision 2050;

9.3 There is no change or only minimal changes to the Base Case scenario, which anticipates a real GDP growth of 4.5 percent over the first ten years;

9.4 The government improves governance and reduces corruption;

9.5 The government systems and institutions are reformed and aligned to Vision 2050;

9.6 All key stakeholders support Vision 2050 and make the necessary paradigm shifts;

9.7 The Government develops a Public Services Training Package and National Qualification Framework to derive an intelligent, durable and performance-oriented public service;

9.8 The Government develops an effective information and communication strategy for Vision 2050;

9.9 There is effective risk management and strategic control; and

9.10 The Government will adequately resource and fund Vision 2050 programs.

10. **Vision 2050:** Vision 2050 is supported by seven ‘Strategic Focus Areas’ or development pillars, with strategic planning as the central and coordinating function. The seven focus areas that have been developed in Vision 2050 will become the basis on which development plans from 2010 to 2050 will be anchored. The strategy that follows translates these focus areas into a statement of achievable objectives and serves as a framework from which sectoral plans are prepared and implemented in a logical and sequential manner, instead of the ad-hoc approaches that have been experienced so far.

![Figure 3.1: The Seven Strategic Focus Areas of Vision 2050](image-url)
11. **Human Capital Development, Gender, Youth and People Empowerment:** Papua New Guinea’s future success depends on the quality of its human resources. Vision 2050 is aimed at producing citizens who are healthy and intellectually astute, and have high ethical and moral character and attitudes. Our people must be developed and empowered to take ownership of their own livelihoods. Excellence and innovation must be recognised and rewarded. A study made by the OECD indicates that a rise in the expenditure on human resources by ten percent leads to an increase in output per capita between four and seven percent. Experiences from countries with limited natural resources show that huge investments in human capital development result in massive and integrated socioeconomic development.

11.1 Papua New Guinea’s population is growing at an annual rate of between 2.3 and 2.7 percent, with approximately 55 percent of the population unable to read and write. Access to basic education and health remains below acceptable levels because of a lack of physical infrastructural development, among other factors. The gender gap on access to education, and drop-out rates continue to be our challenges. Immediate strategies to arrest further decline in all social indicators must be adopted.

11.2 Based on extensive consultations and discussions with stakeholders throughout PNG, a clear consensus has emerged to suggest changes to our existing systems, structures and processes in order to improve access to education. Enrolments in Grades 9 to 12 have remained low, with more than 50 percent of students dropping out at the end of Grade 8. Grade 12 attrition and completion rates have been below 30 percent, with 70 percent of students leaving school between Grades 9 and 11. These prevailing trends in enrolments and completion rates must be changed by 2015 to ensure that all Grade 8 students progress to Grade 12.

11.3 Efforts must be made to further improve and increase access to education from Elementary to Grade 12. Since 1993, Elementary to Grade 8 enrolments have increased by 360 percent. This has increased the enrolment rate to 81.5 percent in 2008. Vision 2050 aims to achieve 100 percent enrolment by 2050.

11.4 There is a need to improve and increase access to the national high schools to produce students who will be trained in science subjects, such as chemistry, biology, physics, geology, marine and environmental sciences, mathematics, English and be competitive in bidding for scholarships to study in Papua New Guinea and at overseas higher education institutions.

11.5 The public and private sector both highlight the need to improve and increase access for technical and business training colleges. The annual enrolment into technical and business colleges is approximately 800 students, which is only seven percent of the 12 000 Grade 12 school leavers each year. Current enrolment in the colleges is less than 2 500, with a graduate output of less than 1 000 annually. This represents 13 percent of all tertiary enrolments. To decrease the drop-out rate at the end of Grade 12 and improve the competence of our human resource, technical or polytechnic colleges must be established in each province by 2020.

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11.6 Access to university education and graduate programmes should be enhanced. In the tertiary education sector, current university enrolment is approximately 10 000, which is 55 percent of tertiary enrolments. In 2009 two of our six universities are run by the churches. The current annual enrolments and graduate outputs of less than 2 000, are inadequate to match the demand that is being created by new investments and an ageing work force. It is imperative that university enrolments and graduate outputs are increased to 50 percent by 2020.

11.7 There is a need to increase, improve and support current research-based institutions and universities in order to produce top quality research and development outcomes that will provide solutions to challenges in areas such as medicine, climate change and disease patterns. Existing Institutions — especially universities — must engage in fostering alignment and partnerships to integrate research and development with teaching and learning which will enhance the quality of education. It is also necessary to establish an Industrial Technology and Development Institute (ITDI) to promote research aggressively and cooperatively amongst institutions of higher education.

11.8 Access for all education levels through open, flexible, and distance education (OFDE) should be improve and increased. Currently, the University of Papua New Guinea, the Papua New Guinea University of Technology and the Department of Education offer courses from high school and secondary school certificate level to degree-level programs. A few other private providers also offer a variety of courses. Through OFDE, the current drop-out rates at Grades 8, 10, and 12 can be significantly reduced. Therefore, an OFDE Commission should be established to maximise the use of this modality by 2020.

11.9 Extensive consultations throughout the country indicated that there is an overwhelming dissatisfaction with the newly introduced Outcome-Based Education (OBE) curriculum. Parents and teachers have revealed that the quality of learning and teaching has been greatly compromised by OBE. Students from Grade 6 through to tertiary education level have difficulty in expressing themselves in the English language. The consultations observed that Elementary 1 and Elementary 2 teachers are under qualified. It was also revealed that teachers are currently overworked because of the demands imposed on them by the teaching methodology prescribed by OBE. It is imperative that OBE is immediately replaced with a curriculum that offers a balanced education, using English as the medium of instruction, starting in Elementary 1, as soon as possible.

11.10 The quality of teacher education with subject specialisations needs to be improved in order to deliver quality education. Teachers’ salaries and conditions must also be improved to encourage and increase employment in a teaching career.

11.11 An independent National Curriculum, Assessment and Monitoring Authority (NCAMA) should be established to monitor the quality of education and training. The quality should equate to international standards and be commensurate with the demands of the economy.

11.12 To maintain educational funding, an Education Endowment Fund (EEF) must be established to ‘park’ all funds that are appropriated by the National Parliament from the Public Investment Budget Strategy. The EEF will sponsor and fund national and overseas scholarships.
There is a need for social capital development within communities. Social capital refers to the shared norms or values that promote cooperation and cohesion within, and among, social relationships within a community or setting.

Literacy is the basis for basic skills and knowledge for all individuals. It is therefore important to establish community colleges throughout the country to improve and increase access to basic literacy and other life-skills training.

Women comprise some 50 percent of the country’s population, but are underutilised. At present, women comprise some 30 percent of the workforce, fewer than 40 percent of the combined gross enrolment ratio for primary, secondary and tertiary education, and 50.9 percent of literate adults aged 15 and older. There are very few women in management, leadership, and decision-making roles in the workplace. The Gender-Related Development Index (GDI) ranks PNG 124 out of 177 countries, with a GDI of 0.529 (UNDP 2008). Greater participation of women must be encouraged at all levels of society.

Current demographics indicate that 40 percent of the population are youths. This presents a huge potential for collective wealth creation and development. Therefore, programs and systems must be improved and expanded to encourage greater participation from youths in all organisations and institutions, and in development programs.

Systems to address the current, persistent, socioeconomic inequalities must be funded and established to eradicate poverty and reduce disparities in income, provincial and district, employment and asset and wealth. There is also a need to bridge the digital and technology divide. Vision 2050 sets the basis for political will and directs appropriate agencies to reduce the widening gap in socioeconomic inequalities.

GDI measures average achievements to reflect inequalities between men and women in life expectancy, knowledge (as measured by adult literacy rate and the combined primary, secondary and tertiary gross enrolment ratio), and a decent standard of living, as measured by estimated earned income (the Purchasing Power Parity is in US$).
12. **Wealth Creation**: Only ten percent of business activities are owned by Papua New Guineans. Entrepreneurial capacity development and skills training are non-existent and income generation is mainly concentrated in the non-renewable resources sector.

12.1 *Vision 2050 will* ensure that Papua New Guinea has a strong, dynamic and competitive economy by 2050. The focus is to develop manufacturing, agriculture, forestry, fisheries and tourism ventures to generate around 70 percent of GDP, with the balance coming from mining, petroleum and gas ventures in the non-renewable sector.

12.2 Major agricultural impact projects will contribute to the realisation of the required shift of economic structure. In the rural areas, agriculture extension officers must be posted to the districts to educate and train our rural farmers so that they can participate in the development of our economy, as well as becoming self-reliant. Our terrestrial and marine resources must be processed onshore so that we extract 100 percent of our resources’ economic value. In the tourism sector, our marine, plant, culture and natural biodiversity must be managed in a sustainable way to enable the growth of the industry.

12.3 Opportunities must be created for citizens to start-up businesses and to expand existing businesses. This can be possible through tax relief, technical and financial support, the establishment of an entrepreneurial incubator scheme and other incentives.
12.4 Vision 2050 will facilitate the development of an industrialisation master plan with commitments to economic corridor planning and the setting-up of a Papua New Guinean Export-Import Bank. A Stabilisation Fund must also be established to control monies from non-renewable sector projects for investment in areas such as education, health, communication, utilities, infrastructure and law and order.

12.5 A concerted effort is required to empower citizens to create wealth from our vast renewable natural resources, through the development of entrepreneurial skills, to ensure that the nation’s wealth is fairly distributed.

12.6 The State must establish or task an existing entity with the development of the indigenous business sector whose role will be to identify, encourage, fund and grow the sector to enable our people to compete with foreigners in the country.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Priority Activities</th>
<th>Key Outcomes</th>
<th>Key Performance Indicators</th>
<th>Means of Verification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolster and maintain a strong, dynamic, competitive, and productive economy.</td>
<td>• Develop agriculture, forestry, fisheries and tourism sectors based on revenue from the mining and energy sectors.</td>
<td>• Citizens’ participation in economic activity is increased and expanded.</td>
<td>• Citizens’ participation in the economy, especially in the manufacturing, agriculture, forestry, fisheries and tourism sectors.</td>
<td>• National employment data and statistics on formal employment and wages (e.g. BPNG).</td>
</tr>
<tr>
<td>Downstream processing for fisheries and forestry products.</td>
<td>• One major impact project in agriculture, forestry, fisheries and tourism for each region, vis-à-vis Southern, Momase, New Guinea Islands and Highlands Regions, through economic corridor development.</td>
<td>• Improve and expand downstream processing in the agriculture, forestry, fisheries and tourism sectors.</td>
<td>• PNG’s total GDP, and GDP contributed by the manufacturing, agriculture, forestry, fisheries and tourism sectors.</td>
<td>• Number of downstream processing activities and related benefits such as employment indicators.</td>
</tr>
<tr>
<td>Reduce import of products that can be produced onshore.</td>
<td>• Create new area of value addition by importing raw material from other countries and add value to it.</td>
<td>• One major downstream project in agriculture, forestry, fisheries and tourism for each region, vis-à-vis Southern, Momase, New Guinea Islands and Highlands Regions.</td>
<td>• Increased contributions to the GDP by the manufacturing sector.</td>
<td>• BPNG Quarterly Economic Bulletin.</td>
</tr>
<tr>
<td>Citizens to have accessibility to grants/credit/ funding.</td>
<td>• Roll out financial literacy programs.</td>
<td>• Increased monetisation of the economy.</td>
<td>• Growth in credit for agriculture, forestry, fisheries, tourism and manufacturing sectors.</td>
<td>• Credit volume to these sectors, as reported by BPNG’s Quarterly Economic Bulletin.</td>
</tr>
<tr>
<td>Create more business opportunities for citizens.</td>
<td>• Improve business environment.</td>
<td>• Lower overall cost of doing business in PNG and promote efficiency.</td>
<td>• Increased productivity of import competing industries.</td>
<td>• BPNG’s Quarterly Economic Bulletin.</td>
</tr>
<tr>
<td>Empower citizens to be entrepreneurs.</td>
<td>• Provide management training and financial literacy skills.</td>
<td>• 50 percent of indigenous citizens are self-employed entrepreneurs.</td>
<td>• Increased business transactions with commercial banks and other lending institutions.</td>
<td>• Business Reports and Citizens’ Report Cards.</td>
</tr>
</tbody>
</table>

Table 3.2: Strategies for Strategic Focus Area Two: Wealth Creation
13. **Institutional Development and Service Delivery:** An analysis by the NEFC (2007) confirms that most provinces spend up to 60 percent of their annual budgets on administration costs that do not equate to the delivery of services. While the population has increased since Independence, overall service delivery has decreased particularly to the rural population. This has made it difficult for government services to reach our people.

13.1 The 2009 Lae Leaders’ Summit endorsed the three-tier system of government. It also decided that funding be made direct to local-level governments supported through appropriate legislative amendments.

13.2 The present administrative and management systems need to be improved to minimize inadequacies and inefficiencies. The public service must be aligned with appropriate work-related training, ethics, discipline and commitment to comply with the existing legislative framework in order to facilitate the effective delivery of government services.

13.3 A coordinated approach at the political and administrative levels is necessary to establish a state mechanism that is viable and efficient, and which complements each other’s roles. The public service is to ensure that its priority is the effective implementation of government policies and delivery of government services to the people. Public servants with the right aptitude, attitude and commitment towards serving in rural Papua New Guinea should be retained and appropriately rewarded. Institutional housing should also be a priority for public servants serving in rural areas and for those people employed in essential services.

13.4 Public service employees at all levels must be fit and proper officers with a sound understanding of the government’s role in service delivery. This can be made possible through the establishment of the Somare School of Government, in place of the existing Institute of Public Administration aligned with other higher education institutions.

13.5 Critical infrastructure and utilities, such as roads, bridges, electricity, safe water supplies, communication, ports, jetties, airstrips, government workboats, banking and postal facilities are necessary enabling infrastructure that will ensure effective service delivery. These facilities will motivate public servants to serve in rural and remote areas.
### Vision 2050

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Reform the public service, legal and political systems to be efficient and effective, and improve the delivery of services to all citizens.</td>
<td>• Cultivate organisational ethics and work culture to ensure efficient and effective delivery of services.</td>
<td>• The public service at the national, provincial and district levels is efficient and effective in delivering services.</td>
<td>• Productivity and performance of the public service.</td>
<td>• Standard and cost of service delivery.</td>
</tr>
<tr>
<td>Effective legal system.</td>
<td>• Conduct training and revamp management systems to ensure a high level of professionalism.</td>
<td>• The Legal and judicial systems are efficient.</td>
<td>• Productivity and performance of the legal and judicial systems.</td>
<td>• Performance appraisals by clients.</td>
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<tr>
<td>Public Private Community Partnership.</td>
<td>• Establish partnership with other development stakeholders.</td>
<td>• The political system promotes stability, gender equality, democracy, transparency, and accountability.</td>
<td>• Productivity and performance of the political system.</td>
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Table 3.3: Strategies for Strategic Focus Area Three: Institutional Development and Service Delivery

14. **Security and International Relations**: Security and law and order remain major concerns that impede national development. The security of our sovereign territory and boundaries remains vulnerable to perceived and unperceived threats. Vision 2050 will ensure that all security agencies, and strategic plans and goals must be adequately supported and funded in order to maintain law and order, including national security and consciousness.

14.1 The Royal Papua New Guinea Constabulary’s manpower level is a critical factor for ensuring safe and secure communities. As the population grows, the RPNGC must also increase its manpower to be able to provide adequate security for our people, investors and properties. Correctional Service programs must also be supported to enable rehabilitation of inmates.

14.2 Papua New Guinea’s international borders are open to hostile activities and must be immediately improved and protected. Adequate funding for the security forces is necessary to enable relevant infrastructure development for border surveillances.

14.3 It is imperative that the Customs Office and the National Agriculture Quarantine Inspection Authority are adequately funded to ensure quality assurance of all inbound imports and outbound exports, respectively.
14.4 Papua New Guinea’s foreign policy, including its international relations and diplomacy, has been overtaken by time, global events and circumstances. The conduct and management of international relations remains uncoordinated and poorly managed, with no vision, mission and goals. Thus, an immediate foreign policy review is required to accommodate the challenges and opportunities which are presented by globalization and regional developments. A professional cadre of diplomats and an accompanying National Foreign Service structure and funding are critical. This pillar will be responsible for creating an environment that is conducive for robust regional and international trade relations.

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<tr>
<td>Make Papua New Guinea a safe and peaceful society in the world.</td>
<td>• Promote and facilitate dialogue and peaceful resolution to conflicts. • Increase capacity for law and order enforcers.</td>
<td>• Citizens are law abiding, with the highest respect for human rights. • People embrace vast cultural diversity as blessings, and institutionalize them as symbols of national identity and national unity.</td>
<td>• Low crime and conflict record. • Papua New Guinea is a safe, pleasant, and exciting society in which to live.</td>
<td>• National and international reports on crime and humanity. • National and international reports on tourism.</td>
</tr>
<tr>
<td>Develop robust regional and global cooperation and trade relations.</td>
<td>• Increase capacity for law and order enforcers. • Build capacity and recruitment for foreign service.</td>
<td>• Papua New Guinea is a secure society for business and is a very attractive investment destination in the world. • PNG becomes a highly preferred tourism destination.</td>
<td>• High business and investor confidence. • Postings.</td>
<td>• National and international reports on tourism. • National and international reports on business and security. • Increase in the number of tourism travels annually. • Number of international posts.</td>
</tr>
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Table 3.4: Strategies for Strategic Focus Area Four: Security and International Relations
15. **Environmental Sustainability and Climate Change:**

15.1 Climate change and variability is inevitable and poses one of the greatest challenges to PNG and the world, if scientific prediction of a temperature rise of 2 to 6° degrees Centigrade is reached within 50 to 100 years. It will have a varied and significant impact on the economy, environment and the livelihood of Papua New Guineans, the Pacific Region and the world. There is poor understanding of climate change and variability and hence inadequate adaptation and mitigation measures currently in place in the country. Poor governance, education and awareness must be addressed. There is insufficient attention being given to climate change initiatives by the global communities on issue of adaptation and mitigation that affect developing countries such as Papua New Guinea.

15.2 We owe it to future generations to preserve our uniquely diverse cultures and traditions. Our cultures and traditions identify our uniqueness in the world. Principles and values that are embedded in our time-tested cultures also need to be captured, emulated, and passed on to future generations. Our diverse heritage is our strength, and if tenuously harnessed, is a platform for synergy – where collective wisdom from 800 or more tribes can be a force for greater outcomes. The embracing of Christian values and principles by our forefathers further adds value to our identity and presence. Embracing time-tested principles and values, aligned with Christian teachings, will ensure that our citizens’ conduct is guided through ethical and moral values. Therefore, all institutions are to align their programs and systems to re-engineer a learning process to instil a holistic human capital asset.

15.2.1 Immediate measures must be taken to ensure that Papua New Guinea is sufficiently cushioned from any adverse impact brought on by climate change. Critical measures to prevent the erosion of climate security, including viable food production and personal health, must be assured. Importantly, Papua New Guinea’s natural resources and environment must be conserved and used for the benefit of all.

15.2.2 The issue of sustaining our environment, cultural heritage and resource management will remain major challenges for the future. Urgent measures must be taken to protect PNG’s environment and its future sustainability. PNG must consolidate its participation in international forums pertaining to environmental sustainability and climate change.

15.2.3 Our environment policy promotes a sustainable development strategy through the ‘wise use’ principle. Proper environmental management will ensure that environmental benefit will be enjoyed by the present generation and that there will be investment for future generations. It also emphasises the importance of conserving biodiversity and promoting sustainable use in economic planning. PNG needs to devise appropriate strategies to deal with conservation and carbon trade issues.
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<tr>
<td>Sustainable development measures developed in all sectors to increase resilience to the impacts of climate change and environmental changes.</td>
<td>• Develop appropriate adaptation and mitigating strategies on climate change and environmental changes.</td>
<td>• Sound policy and legal framework for the sustainable management of natural resources and mitigating climate change and hazards.</td>
<td>• Less logging for exports. • Communities’ resilience is enhanced in villages. • Sustainable development policies completed. • Oceans and marine and terrestrial areas protected. • Forests are protected and sustained.</td>
<td>• Legal cases and reports on environment. • Increased forest and land-use areas designated for carbon opportunities. • Large renewable energy projects developed.</td>
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<tr>
<td>Conserve and use our natural resources and environment for the collective benefit and for future generations.</td>
<td>• Develop policies and organizational structures to address climate change and sustainability development.</td>
<td>• Sound institutional framework for sustainable management of natural resources and mitigating climate change.</td>
<td>• Professional competence and world standard research programs on environment and climate change.</td>
<td>• National and international environment management and research.</td>
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<tr>
<td>Improve understanding on environmental sustainability and climate change with educational awareness on economic opportunities, such as carbon trade and tourism.</td>
<td>• Strengthen research and develop infrastructure, capacity, and programs.</td>
<td>• World class education, research, and sustainable management of natural resources and mitigating climate change.</td>
<td>• 70 percent of PNG forests are conserved and managed for carbon trade purposes. • Oceans and land resources managed. • Mitigation measures for all forms in industries, mining, energy, and waste.</td>
<td>• Community and stakeholder feedback on services. • Policies implemented.</td>
</tr>
<tr>
<td>Converse and wisely use our natural resources and environment, language and cultural diversity for the collective benefit of the present and future generation.</td>
<td>• Develop policies and organizational structures to address climate change and sustainability development. • Develop enabling policies through legal instruments.</td>
<td>• Sound institutional framework for sustainable management of natural resources and mitigating climate change. • Develop inventory of biodiversity, language and cultural diversity.</td>
<td>• Professional competence and world standard research programs on environment and climate change. • Increase tourism sector’s contribution to GDP.</td>
<td>• National and international environment and management and research. • BPNG Economic Bulletin Quarterly Reports.</td>
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<tr>
<td>Effective partnership and cooperation with international community on environmental sustainability and climate issue.</td>
<td>• Identify strategic partners and develop programs that strengthen partnership arrangements.</td>
<td>• Participate in, and benefit from, international arrangements on environmental sustainability and climate change.</td>
<td>• Adherence to international agreements.</td>
<td>• Reports from respective departments and institutions.</td>
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Table 3.5  Strategies for Strategic Focus Area Five: Environmental Sustainability and Climate Change
16. **Spiritual, Cultural and Community Development**: Churches have contributed significantly towards the integral human development of our people since their settlement in Papua New Guinea. They have continued to provide health and education services as part of their ministry and gospel work. Although the churches have taken on more than 40 percent of the basic health and education services, there has been scant financial support from the Government. During the nationwide consultations, Papua New Guineans called on the Government to support the churches. Many claimed that the churches are with the people and can reach the remotest parts of the country, where the Government is not able to.

16.1 Mind pollution, resulting from exposure to unethical communication mediums, remains a threat to gender discrimination and the maintenance of a respectful society. The current generation seems to have lost respect for our culture and traditions.

16.2 The role of the churches, as partners in national development, must be welcomed and encouraged. The churches are expected to be united in fostering partnerships for national development. It is expected that they will work in conjunction with the State, as well as independently.

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<tr>
<td>Instil positive attitudes and values of respect, integrity, excellence, and discipline in people.</td>
<td>• Introduce religious instruction at all levels of education and fellowship in all government offices and SOEs.</td>
<td>• People have a positive attitude and outlook on life.</td>
<td>• Churches to play a more active role in people transformation and empowerment.</td>
<td>• Local and national reports on good governance.</td>
</tr>
<tr>
<td>Involve the churches and NGOs as equal partners in development and service delivery.</td>
<td>• Develop a policy framework to enable partnership with church and NGO-based organisations.</td>
<td>• Improvement in Government through good governance, transparency, and accountability.</td>
<td>• Churches and civil society to play a more effective role in ensuring government accountability.</td>
<td>• Reduction in corruption indicators.</td>
</tr>
<tr>
<td>Develop love for God, citizens, foreigners, work, creation, and property.</td>
<td>• Develop a love for PNG, her leaders, people, hopes, and dreams, through prayer every day.</td>
<td>• The nation that kneels in prayer will stand on a solid rock despite all kinds of circumstances.</td>
<td>• People will love God, their citizens, their foreigners, their work, creation, and property will increase.</td>
<td>• Respect for God, others, and themselves, their environment, and property they use.</td>
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<td>Improve and increase chaplaincy services to Parliament, all security forces, and all government institutions.</td>
<td>• Develop a policy for partnership in engaging chaplains for Parliament and key government institutions.</td>
<td>• Churches increase involvement in serving, and reducing pressures in the lives of leaders.</td>
<td>• More leaders will manage life pressures of leadership and broken family relationship.</td>
<td>• Many leaders will retire and live smart, wise, fair, healthy, and happy lives.</td>
</tr>
<tr>
<td>NGOs and churches as equal partners in development and service delivery.</td>
<td>• Develop systems and protocols for engagement with church-based organisations. • Provide management training for church-based organisations.</td>
<td>• More people have easier and increased access to basic services.</td>
<td>• Churches to play a more active role in the delivery of basic services to the people.</td>
<td>• Local and national reports on the social indicators. • Community and stakeholder feedback on services.</td>
</tr>
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Table 3.6: Strategies for Strategic Focus Area Six: Spiritual, Cultural, and Community Development

17. **Strategic Planning, Integration and Control**: The successful implementation of Vision 2050 requires the establishment of an independent entity to provide monitoring and evaluation of its progress.
17.1 Vision 2050 provides the pathways forward to achieve progressive and systematic long-term planning and management of resources for real and sustainable nation building. This pillar will ensure that Papua New Guinea has sound, clear, achievable and progressive long-term policies and programs. The pillar carries out strategic reviews of major policy areas, works with central agencies and line agencies to promote strategic thinking, conducts regular strategic audits and monitors and evaluates the long-term Vision 2050.

The development of an information and communication strategy to drive Vision 2050 is necessary.

17.2 Planning in PNG is hampered through lack of credible and consistent data. The National Statistical Office (NSO), Census Office, National Mapping Bureau, National Weather Service and Birth Registry Division of the Department for Community Development have to be adequately funded to provide up-to-date information for planning purposes.

17.3 Vision 2050 will ensure that all bilateral and multilateral arrangement, as well as foreign and trade policies, are continuously aligned to Vision 2050. These will ensure consistency to the nation’s development agenda.

17.4 Surplus and unspent government funds that are ‘parked in trust accounts’ must be returned to consolidated revenue in order to be reappropriated and managed in an open and transparent manner.

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<tr>
<td>Sound strategic direction for development and nation building.</td>
<td>• Develop a sound Vision 2050.</td>
<td>• Papua New Guinea has a sound, clear, and practical strategic direction for long-term development.</td>
<td>• Development plans and policies are aligned with greater coordination and control.</td>
<td>• Corporate, strategic, and business plans of key stakeholders.</td>
</tr>
<tr>
<td>Operational cascade vision and mission statement.</td>
<td>• Align medium-term development strategies to Vision 2050.</td>
<td>• Outcomes of the medium-term development strategies are logical, progressive, and aligned to Vision 2050.</td>
<td>• Greater involvement and collaboration among key stakeholders.</td>
<td>• Annual reports highlighting financial and management performances.</td>
</tr>
<tr>
<td>Monitor and evaluate implementation of Vision 2050.</td>
<td>• Align policy and budget to Vision 2050.</td>
<td>• National, provincial and district policies, plans, and budgets are aligned to Vision 2050.</td>
<td>• Corporate and sectoral plans are aligned to Vision 2050’s goals and objectives.</td>
<td>• Annual program reports and independent feedback from clients.</td>
</tr>
</tbody>
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Table 3.7: Strategies for Strategic Focus Area Seven: Strategic Planning, Integration, and Control
18. Successful Implementation of Vision 2050

The successful implementation of Vision 2050 lies in:

18.1 Central and line agencies of government supporting and proactively facilitating the development framework of Vision 2050;
18.2 Human resources are made available;
18.3 Political stability ensuring consistency in government policies;
18.4 Minimal or no changes to current macroeconomic forecasts over the next 20 to 30 years;
18.5 Marked improvement in governance and the performance of the political system.
18.6 Marked reduction in corruption, mismanagement and misuse of public assets and resources;
18.7 All government systems and institutions being fully reformed and aligned to Vision 2050;
18.8 All key stakeholders actively supporting and aligning their development agendas to Vision 2050;
18.9 The Government at all levels adequately resourcing and funding the Vision 2050 programs; and
18.10 An appropriate institutional and operational framework established to drive Vision 2050, including planning and determination of Vision 2050 core programs.

19. Key Milestones of Vision 2050

The key milestones of vision 2050 will be achieved when:

19.1 All national, provincial and statutory institutions and district policies, plans, and budgets are immediately aligned to Vision 2050;
19.2 The public service at the national, provincial and district levels are functioning efficiently and effectively;
19.3 Legal and judicial systems in PNG are operating efficiently;
19.4 The political system in PNG is actively promoting stability, gender equality, democracy, transparency, accountability and economic development in Papua New Guinea’s national interest;
19.5 Medium-term and Long-term development plans for the Southern, Momase, New Guinea Islands and Highlands Regions are aligned to Vision 2050;
19.6 Southern, Momase, New Guinea Islands and Highlands Regions each have completed implementation-ready documentation for one major impact project in each of the following areas — agriculture, forestry and fisheries and tourism;
19.7 Funding is secured for each of the major impact projects in agriculture, forestry, fisheries, and tourism for the Southern, Momase, New Guinea Islands and Highlands Regions;
19.8 PNG has sound trade and export sectoral strategies, has developed new markets and has improved its rate of compliance with international rules and standards;
19.9 Churches are engaged more actively in the growth, development and empowerment of Papua New Guineans;
19.10 Churches and civil society are jointly playing an active and effective role in advocating and promoting accountability in government;
19.11 Churches in PNG are playing a more effective and increased role in the delivery of basic services to the people;
19.12 State-owned enterprises (SOEs) are effective and efficient in service delivery;
19.13 Major impact projects have been nominated and implemented under Public –Private Partnership arrangements;
19.14 The National Development Bank is reformed and the primary industry sector (agriculture, forestry, fisheries and tourism) lending is increased by 200 percent;
19.15 Sustainable development policies are developed and implemented to increase the resilience of 80 percent of people in vulnerable provinces, especially the highlands, islands and coastal areas;
19.16 Information communication technology and early warning systems are installed in each province to support economic livelihoods and the environment, especially the education and health sectors;
19.17 Communities benefit from climate change and environmental sustainability initiatives and opportunities under the carbon trade, in relation to land and ocean resources;
19.18 By 2020, Papua New Guinea’s sporting and recreation infrastructure and management are to be improved to world class standards;
19.19 By 2015, food imports, including meat and vegetables are reduced by 25 percent;
19.20 By 2020, PNG is a preferred country in which to do business and its policies will be conducive to trade and investment development;
19.21 By 2020, the education system in PNG is of world class standard, relevant and progressive;
19.22 By 2020, Universal Basic Education is achieved; and
19.23 By 2020, the education system will progressively enhance gender parity and equality in accessing formal education and needs-based training.

20. Core Strategic Development Areas: From the nationwide discussions and feedback received from those district consultations, Vision 2050 now settles on three core program areas which will be at the heart of the whole plan. These areas are Institutional Development and Service Delivery, Wealth Creation, and Human Capital Development. All other Strategic Focus Areas will provide critical support to these three core development areas. Under service delivery, the focus is on developing better platforms to ensure that services are directly delivered to the people. Wealth creation will ensure that 70 percent of the country’s income is derived from renewable resources and the development of entrepreneurial skills. Human capital development is expected to produce a knowledgeable, empowered, committed, and productive work force and population.

20.1 Service Delivery and Institutional Development: During the Vision 2050 district consultations, it was noted with great concern that districts lack the capacity to deliver government services. In many government outposts, public servants are absent and are residing elsewhere. Apart from a lack of infrastructure, government funds that are intended for development and service delivery rarely translate into anything tangible. It was noted that the current arrangements between the national and provincial governments are not conducive to development and service delivery in districts and local-level government areas.

20.2 Infrastructure Development: The country’s infrastructure, such as roads, airstrips, buildings, bridges, sporting amenities, communication, electricity, water supplies and sanitation have continued to provide the foundation for development. However, major constraints are faced by the country in this sector. The government’s approach to infrastructure development and maintenance needs immediate attention. Urgent rehabilitation, prioritisation and sustained support to maintenance programs will ensure that state infrastructure assets are in good condition and that their usable life is extended. The infrastructure platform is the main catalyst upon which service delivery programs and programs for sustaining people’s livelihoods rely. Infrastructure development is vital and must be given priority in all of the government’s development agendas.
20.3 **Provincial and Local-Level Service Monitoring Authority (PLLSMA):** The PLLSMA has been established to coordinate and monitor national policies at the provincial and local government levels, with the ultimate goal of improving service delivery. The coordinating role is undertaken by a subcommittee comprising all key sectors, such as agriculture, works, transport, communication, health, law and justice, and the National Economic and Fiscal Commission. The provincial subcommittee provides plans for coordination, implementation, monitoring, and reporting. The PLLSMA should collaborate with line agencies, and Provincial, District and Local-level Governments in the planning and implementation of priority programs, such as the District Services Improvement Program (DSIP), the National Agriculture Development Plan (NADP), the Rural Education Services Improvement (RESI), the Constitutional Grants (discretionary and non-discretionary), the Health Sector Improvement Program (HSIP), the District Transport Improvement Program (DTIP) and others.

20.4 **State Owned Enterprises (SOEs):** The prime mandate of governments all over the world is to service the needs of its citizens. Infrastructure such as roads, electricity, telecommunication, wharves, jetties, airstrips and airports are necessary prerequisites for economic growth. Furthermore, social and community services, including health, education, recreational and welfare programs are essential for survival in modern societies. Experiences have shown that there is a close relationship between infrastructure and economic output in both advanced and developing countries.

20.4.1 Despite PNG’s relative strong economic performance in recent years, its infrastructure and social services have virtually deteriorated beyond repair. There is an urgent need to increase investment in SOE reforms, including in the areas of maintenance and capital expenditure. The implementation of the Public Private Partnerships (PPPs) and community services obligation policy in the medium-term and long-term will enable private sector participation and contribution to infrastructure development and other service delivery initiatives.

20.5 **Public Private Community Partnership (PPCP) Policy:** Consistent with the past and current governments’ objective to maximise partnership with the private sector, a PPCP policy was endorsed by the Government in December 2008. Under the new PPCP policy framework, the private sector will have a wider role in financing and managing future large infrastructure investments as well as other projects in the social and wealth creation sectors. Potential impact projects will be nominated as part of the National PPCP Infrastructure Plan for implementation during the planning period. The proposed PPCP centre will need to be aligned to the Vision 2050 implementation framework to bring about effective coordination and resourcing. The approval and implementation of the community services obligation policy will also help to facilitate the increased involvement of the private sector in service delivery and the expansion of services. The major projects that were identified through the economic corridor planning exercises will be facilitated through the PPP framework.

20.6 **Development Partners:** Donor organizations provide valuable development assistance. There has been a significant flow of donor-sponsored assistance and resources to PNG over the past 34 years. However, not all donor support has been effective. The Papua New Guinea Vision 2050 framework provides a good opportunity for better and more effective dialogue, commitment, engagement, realignment, and review of the donors’ performance in the planning and implementation of priority impact projects. Vision 2050’s proposal will enable future governments to better identify and clearly articulate to donors the priority projects and programs that need funding support or assistance.
20.7 **Churches and Non-Government Organizations (NGOs):** Many NGOs are involved in development programs. Principal among them are the churches which have a long history of providing effective services in health, education and social welfare, especially in the more remote parts of the country. The churches played a key role in the provision of health and education services prior to independence and continue to contribute substantially to service delivery using their extensive networks. NGOs collectively spend large sums of money to achieve their organizational objectives. International NGOs have extensive networks through which both technical and financial support is sourced from their in-country programs. Local NGOs, which are mostly based in the rural areas, deliver services over a long period of time, with limited funding. A broader NGO-Government policy framework must be developed under the auspices of Vision 2050, for community development and service delivery. The recently executed Church-Government Partnership would be facilitated under the broad NGO policy framework.

20.8 **Service Delivery Mechanism Model (SDMM):** The development of an appropriate Service Delivery Mechanism Model (SDMM) for bottom-up planning and improved service delivery at the ward and district levels was approved for implementation by the Public Services Reform Management Unit (PSRMU), in consultation with the Provincial and Local-Level Service Monitoring Authority (PLLSMA). The project provides an opportunity for baseline data collection and analysis and the design of the SDMM that would enable direct funding, planning, monitoring, reporting and improvement of services at the district and ward levels.

20.9 **Political Options for Better Service Delivery:** The Organic Law on Provincial Governments and Local-level Governments (OLPGLLG) has failed to achieve its primary role of effective service delivery to the people. This has led to calls by politicians and their constituents for the Organic Law to be repealed and a much simpler form of decentralization introduced. In order to facilitate effective planning and implementation of Vision 2050 and the achievement of its objectives, in the long term, it will require an effective functioning political and administrative system. The Taskforce on Government and Administrative Reforms recommended three political options:

- a two-tier government (national and local-level);
- a three-tier system of government (national, provincial and local); and
- a bicameral house (senate).

20.9.1 The issues relating to women’s representation have also been considered in the political reform agenda. The Leaders’ Summit that was held in August 2009, in Lae, endorsed the three-tier government, but suggested that it needs modification. The recommendation for the provision of reserved seats for women was also endorsed. Adequate resources need to be provided for priority implementation, commencing in 2010.

20.10 **Wealth Creation:** Not enough has been done to support and empower Papua New Guineans to create wealth from the country’s vast renewable and non-renewable natural resources. There has been very little emphasis given to building the entrepreneurial skills of our people to grow the small-to-medium enterprise (SME) sectors and to the effective use of natural resource rent to sustain income flows in the future. Furthermore, the nation’s economic wealth continues to be unfairly and inequitably distributed. Papua New Guinea’s economy continues to be dominated by the mining and energy sectors.
20.10.1 It is the intent of Vision 2050 that the renewable resource sector, including manufacturing, will contribute around 70 percent to the country’s GDP. In the future, under Vision 2050, agriculture is expected to contribute 30 percent to GDP, tourism 20 percent, and forestry and fisheries a further 20 percent. The strategic direction of Vision 2050 will provide the framework in alignment with respective sectors to develop these revenue-based sectors from 2010 to 2050. Six key indicators will be used to track the progress of efforts in order to empower citizens to maximise the wealth from the vast renewable natural resources and ensure that the nation’s wealth is distributed fairly and equally to all Papua New Guineans.

20.10.2 These key indicators are:

20.10.2.1 Optimal utilisation of Papua New Guinea’s customary land for economic activities, without compromising social and cultural customary tenure;

20.10.2.2 Marked increase in export revenue;

20.10.2.3 Increased transition and adjustment by relevant industries to downstream processing and value adding activities;

20.10.2.4 Marked increase in the number of small businesses becoming medium-sized enterprises;

20.10.2.5 Marked increase in the number of indigenous Papua New Guineans participating in economic activities; and

20.10.2.6 Marked increase in the productivity levels in all sectors of Papua New Guinea’s economy.

20.11 Land Utilization: Land is an important factor of production. It has great potential to contribute to medium-term and long-term development objectives in wealth creation and economic growth. Although Papua New Guinea has a land area of some 461 690 km$^2$, it has been generally difficult to access it, either under customary tenure (97 percent), or alienated land which is administered by the Government (three percent). The challenge is in finding ways to utilise land under traditional ownership in a way that does not compromise traditional land security, while at the same time making it conducive for economic growth and diversity. However, it is widely acknowledged that administration of the state’s three percent is poor.

20.11.1 The inherent problems of land administration, lack of awareness of landowners regarding legal provisions, procedures for registration and use of customary land for socioeconomic development are constraints to growth. Vision 2050 is committed to providing guidelines and scenarios for land administration in collaboration with the Department of Lands and Physical Planning in order to implement land reform programs and explore ways of making landholding more conducive to promoting economic development.
20.12 Oceans and Coastal Environments

Papua New Guinea has a total sea and ocean area of 3.12 million square kilometres and a total coast line of 17,110 kilometres which encompasses the coastal peripheries of the mainland and the islands of fifteen of its provinces. The PNG Maritime Boundaries Delimitation project which will define Papua New Guinea’s Exclusive Economic Zone (EEZ) will be concluded in 2010. While the country’s focus has been on land utilisation, the ocean environment has not been developed, mainly because of the poor understanding of ecosystems and the new challenges that are offered.

While fisheries, marine biodiversity, transportation infrastructure, and some mining activities continue to do well in the country, greater challenges, such as impacts of climate change, natural hazards and security threats, will potentially erode the livelihoods and sustainable impact projects of the country. The implementation of information communication technology (ICT) infrastructure would contribute significantly to developing vital facilities for the coastal communities. The oceans and waters ecosystems of the country possess a great abundance of marine and mining opportunities for sustainable development. Vision 2050 should now focus in this area with the potential economy and environmental impact activities. A no regret ocean policy is urgently required and must be developed to enhance our prosperity before 2011.

20.13 Agriculture: The agriculture sector is extremely important as it provides for the needs of the majority of our people and is likely to do so for the foreseeable future. However, since independence, the agriculture sector’s contribution to GDP has declined. At present, the non-renewable resources sector (gold, copper and oil) accounts for approximately 77 (80%) percent of the total value of exports, while the primary industry sector accounts for only 23 percent — agriculture (17%), forestry (5%), and fisheries (1%). The poor and declining performance of the agriculture sector is of great concern. Eighty-five percent of Papua New Guineans who live in the rural areas depend on agricultural produce to sustain their basic livelihood and the sale of cash crops as an important source of income. While PNG has great agricultural potential to grow and meet its domestic requirements, it still imports a large volume of agricultural products, including vegetables, proteins and grains, resulting in the expenditure of substantial export earnings. The National Agricultural Development Plan will be implemented under the auspicious of Vision 2050, over the medium to long term period, to provide better and innovative agricultural practices. Vision 2050 encourages major impact projects in the agricultural sector which are associated with downstream processing and import replacement.

20.14 Forestry: Most forests in PNG are owned by customary landowners. The dominant activity in the predominantly foreign-owned forestry sector is industrial logging, which makes a significant contribution to export revenue predominantly. There is very little investment associated with value adding and downstream processing in industrial logging. Furthermore, there is very little investment in research and development of plantation forestry. Papua New Guinea’s forests play a significant role in the ecosystems and environmental functions that are beneficial to sustaining bio-functions. They also contribute to the local and global economies. Vision 2050 will work with forestry sector stakeholders, including the National Forest Authority, the logging industry, the international community, and the conservation sector in devising appropriate policies for the sustainable management of Papua New Guinea’s forest resources. This includes developing a policy framework for climate change mitigation and carbon trade.
20.15 **Fisheries:** The fisheries sector in PNG comprises subsistence and commercial fishing. This sector is the largest renewable resource sector contributor to Papua New Guinea’s export earnings, after agriculture and forestry. Papua New Guinea has embarked on substantial downstream processing in the fisheries sector to increase revenue. PNG currently has four tuna processing facilities, in Madang, Wewak, and Lae. Madang is also developing a marine park which is aimed at attracting more downstream facilities to the country. PNG has a huge potential for more downstream processing in the fisheries sector. For example, in the purse seine category alone, only 34 out of 186 licensed boats have their catches processed in PNG. Of these vessels, only seven are owned by national companies. Vision 2050 will work with the fisheries sector agencies in the development of sustainable management strategies for fisheries and marine resources. The key strategic areas include:

- research, development and information dissemination;
- easy access to credit services;
- surveillance and monitoring;
- improved market access for fisheries and marine products;
- building institutional capacity at provincial, district and local government to improve coastal fisheries management; and
- develop aquaculture as a priority program targeting inland areas for wealth creation.

20.16 **Tourism:** Papua New Guinea is richly blessed with abundant terrestrial and marine natural resources. Combined with beautiful and pristine natural environments, impressive ranges of mountains and spectacular coral reefs, these resources give the country an international reputation for experiencing scuba diving, volcanoes and rugged mountain ranges, beautiful beaches and tropical rainforest which contains lush vegetation and myriad animal species. The rainforest is home to an impressive variety of exotic birds. We also have over 800 languages, resulting in our very large cultural diversity which has immense value as a tourism draw card. This positions PNG as a unique tourist destination in the world. Vision 2050’s plans should capture this opportunity and work in collaboration with the PNG Tourist Promotion Authority and other relevant sectors to promote the tourism industry and the necessary infrastructure.

20.17 **Entrepreneurship:** Lack of education and skills development have contributed to a lax attitude and dependency mentality among the population. This has resulted in our people being unable to enter into small business opportunities which are currently dominated by foreigners. This compounds the rate of growth towards self-reliance. The future development focus under Vision 2050 will shift from a poverty reduction mentality to a positive wealth creation mind-set. It is the intention of Vision 2050 to turn struggling rural Papua New Guinean communities into economic growth centres through the mobilization of the masses. It is essential that a rigorous program in entrepreneurial skills development is established, and that communities are arranged into cooperative societies or nucleus estates for collective economic growth.

20.18 **Human Capital Development:** Skills development and lack of employment opportunities have been setbacks to human resource development. An affordable and quality education can assist in knowledge and skills development and augment our productive human resource.
20.19 **Education:** The Department of Education is moving towards achieving Universal Basic Education (UBE) and anticipates an 80 percent achievement rate by 2015. However, the retention of students will remain a problem. To intensify human resource development, Universal Basic Education is the launching pad. Corresponding investments are to be made under Vision 2050 to rigorously enhance this process. The current enrolment statistics show that the majority of children are enrolled in primary schools. This signals the need for immediate increase in investment in the secondary, vocational and technical school systems to cater for the increasing student numbers and provide quality knowledge and skills education.

A major expansion of infrastructure, management capacity and strengthening of linkages between primary, secondary, vocational, technical, secretarial and teacher colleges must be carried out. Other critical areas to be addressed include the recruitment of teachers from overseas to fill general teacher and subject specialist shortfalls, improvement of teachers’ qualifications, terms and conditions and their attraction and retention within the teaching service. According to Vision 2050 focus area, vocational schools are to be aligned to the skills and entrepreneurial needs of the community. Training in agriculture, technical trades, and personal viability will be conducted according to the demands of the labour markets.

20.20 **Universities and Colleges:** Colleges, universities and other higher education and training institutions enrol more than 15,000 students every year. There is a huge gap in terms of the number of students leaving school and those accepted into higher and further education. For example, out of approximately 75,000 students who leave school each year, only 15 to 20 percent are able to find places in higher education institutions (2008). The rest become drop-outs or ‘push-outs’ who are left ill-prepared and disillusioned. High quality human resources can be developed by various training institutions. At the universities, skilled and knowledgeable human resources are produced to meet the knowledge and technological needs and demands of the public and the private sectors. It is estimated that some 320,000 people who have been educated and skilled to international standards will be required by 2030. This requires approximately 16,000 graduates to be produced annually. Under the current educational regime, this requires a significant expansion of both secondary and tertiary educational institutions. The functions of the universities and other institutions of higher learning are to implement policies and strategic directions that have been developed by the Office of Higher Education and aligned to Vision 2050.

20.21 **Research and Development:** It is essential to ensure that research is carried out to identify, adopt, adapt, and provide solutions to problems and seek innovative pathways to improve social, technical, scientific and economic conditions affecting the people. Research is critical for advancement in modern society. In many developing countries, including PNG, research and development does not feature prominently, because it requires heavy capital investment and involves long periods before there are any tangible outcomes. Papua New Guinea must determine its comparative advantage and find a niche to capitalize on areas of its natural endowment and heritage by developing research programs. Research and higher education institutions, together with industry must collaborate in research and development in order to add value to local knowledge and enterprise. Research must expand to include studies of natural resources, the processing and the downstream treatment of agricultural and natural resource products, new areas such as medicinal biota research and a range of relevant applied research that may yield attractive returns to PNG.
20.21.1 New research bodies should be established and or amalgamated with existing institutions, each specializing in different disciplines such as natural sciences (agriculture, forestry, fisheries and general biological sciences). An applied and technological research institute to deal with manufacturing, product development and quality assurance could be part of the current National Institute of Standards and Industrial Technology and be linked to the appropriate technology department at the Papua New Guinea University of Technology. These research institutes would adopt, adapt and generate new production technology for all industries.

20.21.2 If these research institutions are established, then a governing body needs to be formed to oversee their operations. This entity could be called the Research and Development Council of PNG and comprise of prominent citizens with scientific and technical dispositions and representatives of the Government and respective industries.

21. Crosscutting Issues: Long-term development plans need to take into consideration crucial cross-cutting issues that may have an adverse impact on the development processes. Vision 2050 is mindful of these consequences. It endeavours to incorporate them into the overall development strategies, as well as alerting responsible sectors to devise measures and remedies to deal with the issues in a positive manner.

21.1 Gender: The National Goals and Directive Principles (NGDP #2), the United Nation’s Millennium Development Goals (MDG #3), and PNG’s Medium Term Development Strategies, 2005-2010 identify gender as a critical focus area to be proactively addressed at all levels of government, administration, business, and communities, including civil society organisations. There is a huge imbalance and inequity in our society, mostly in favour of the male gender, which marginalises the equitable participation of females in all walks of life. In addition, there are strong cultural beliefs and value systems that require major education and empowerment interventions to imbue young people with a more liberal approach, in order to sensitise them.

21.1.1 Vision 2050 recognises the significance of NGDP #2 and MDG #3, that PNG as a nation has utilised less than 50 percent of the intellectual and creative potential of its people. Vision 2050 envisages — and strongly recommends — that intervention programs to achieve gender equity must be given more attention and be supported with sufficient resources.

21.2 HIV/AIDS: HIV/AIDS has the potential to undermine the economic and social advancement of PNG. One potential impact of HIV/AIDS is apparent in the overall population growth. Over the Vision 2050 period, the rate of population growth with HIV/AIDS is anticipated to be approximately 16 percent lower than it would have been in the absence of the epidemic. Current statistics on HIV/AIDS must be a concern to the country. It is estimated that 1.28 percent of the population is living with HIV/AIDS (2007).

21.2.1 PNG is already experiencing declining health indicators and HIV/AIDS has the potential to significantly worsen those indicators and affect economic growth. The HIV epidemic in PNG requires innovative approaches, if it is to avoid the patterns of the epidemic in similar underdeveloped countries such as those in Sub-Saharan Africa. Vision 2050 will
work in partnership with the National Aids Council Secretariat (NACS) to come up with significant preventive strategies.

21.3 **Law and Order**: The law and order problem poses a great challenge to the development and implementation of the long-term plan. Low literacy rates, unemployment and social displacements have fuelled law and order problems. In an attempt to escape impoverished rural areas, people are migrating to urban centres where unemployment rates are very high and living conditions unbearable. This situation has created an immense challenge for law and order agencies. Furthermore, the cultivation, marketing and abuse of drugs are on the increase among young people. Papua New Guinea’s law and order situation requires immediate action so that all other potential socioeconomic gains are not jeopardised. Improving the law and order situation is essential to laying the foundations for socioeconomic growth and establishing investor confidence. Adequate budgetary allocations to the Royal Papua New Guinea Constabulary (RPNGC) and to the broader law and justice sector is necessary to combat law and order problems.

21.4 **People with Disabilities**: Based on international research which was conducted in a number of developed and developing countries, it is estimated that up to 10 to 15 percent of the national population will have some kind of disability. In recent times, people with disabilities have been totally invisible in all areas of the development process. They are among the most vulnerable and marginalised members. People with disabilities should be empowered, their rights recognised and they should be included in the mainstream of social and economic life. Vision 2050 should devise processes whereby a compassionate and family-based society is created which recognises people with disabilities as having the same rights as other citizens. Furthermore, Vision 2050 recognises that, if progress is to be made in addressing the rights and needs of people with disabilities, a strong partnership must be built with civil society including the churches, community-based organisations, development partners and in particular, disability organisations.

22. **Summary**

The National Strategic Plan Taskforce’s extensive district consultations has verified that Papua New Guineans aspire to a vision of having a ‘Smart, Wise, Fair, Healthy and Happy Society by 2050’. This vision will be best achieved if the Medium Term Development Strategy (MTDS), sectoral strategies and corporate plans of sectors and agencies align their strategic objectives to the Vision 2050 and its mission in a cascading manner. Implementation of the Vision 2050 Mission Statement, will be through the seven Strategic Focus Areas.
CHAPTER FOUR: INSTITUTIONAL FRAMEWORK FOR VISION 2050

1. Introduction

Vision 2050 is the National Government’s Strategic Directional Statement that will guide the nation’s development agenda over the next 40 years. Given the broad and long-term nature of the vision, it will require an appropriate policy and institutional framework to ensure that effective planning and implementation occurs. The Government must develop appropriate policy and legislative frameworks for institutionalising Vision 2050. This includes amendments to relevant sections of the Constitution and the introduction of appropriate legislation to give effect to the establishment of an independent entity that will drive Vision 2050.

1.1 To achieve objectives in the first few years and ensure medium and longer term benefits, Vision 2050 is dependent on new approaches to systems, processes and mechanisms to ensure that there is a more robust national commitment and that effective internal partnerships are developed.

2. National Ownership and Commitment

2.1 Securing unreserved cooperation and commitment of all citizens is essential in implementing the national development objectives.

2.2 Strengthened national capacity for effective participation and cooperation will also be achieved through national planning and budgeting processes to ensure an adequate resource allocation for the financing of all levels of government.

2.3 It is essential to arrange pooling of technical and policy experts from agencies in the country in order to develop human capacity to tackle short-term issues of strategy implementation.

3. Partnership

3.1 Closer association between PNG and our bilateral and multilateral development partners will expand our membership of regional agreements and associations, which will lead to a broadening and deepening of national and international cooperation.

3.2 Stronger partnerships at the international and national levels, with non-state actors (NSAs), is also essential. This will require a regional accreditation policy and framework for engagement with NSAs, which will encourage the national government to institutionalise a framework for engagement with national civil society organisations.

3.3 As current resources for national cooperation are sourced mainly from development partners and multilateral organisations, stronger engagement will be needed to implement Vision 2050, to effect a better alignment of their programs and reporting requirements with national priorities and processes. Vision 2050 may ultimately form the regional partnership framework for development.

31 These include non-government organizations, community-based organizations, faith-based organizations, and private sector associations.
4. **Operational Strategy**

4.1 A detailed implementation plan, with realistic objectives and outputs and clearly defined coordination responsibilities will ensure that the goals and priorities of Vision 2050 are achieved. A monitoring and evaluation strategy will measure the progress of the implementation plan and provide information for appropriate modifications when necessary. Vision 2050 Development Indicators will be prepared to enable the evaluation of its progress and compatibility with nationally and globally agreed goals.

5. **Information and Communication Strategy**

5.1 An Information and Communications Strategy for Vision 2050 will promote widespread understanding and support for the implementation plan, targeting national commitment and action, as well as understanding and support from regional organisations, NSAs, development partners and multilateral agencies. National reports, data and inventory can be compiled for ease of reference and advice to the Government — especially leaders. The Information and Communications Strategy will also provide a mechanism for ongoing debate concerning the progress and achievements of Vision 2050 and its future.

6. **Monitoring Evaluation and Review**

6.1 The independent entity will develop a monitoring and evaluation (M&E) framework that will be used to track progress made. All staff will receive training on M&E. Information generated through the reviews will be analysed regularly and documented in quarterly and annual monitoring reports.

6.2 Reviews must be undertaken by intervals during the envisioned period. It is important that major reviews are undertaken in 2019, 2029 and 2039. This will allow the next generation to reassess and set new targets for 2020 up to 2050 respectively. The framework below proposes the review timeline.
7. Summary

Vision 2050 has a general timeframe of 40 years. It ensures flexibility so that the vision of our leaders and our people and the goals of Vision 2050 extend into the future. Our leaders and the people will regularly revisit their vision and evaluate Vision 2050. In the interim, the Department of Prime Minister and National Executive Council will oversee the management of, and provide recommendations to leaders on future directions with regard to strategy implementation. This will involve establishing processes to gather and utilise broad-based views and insights concerning the future of development in the country from all stakeholders.
CHAPTER FIVE: THE FUTURE

Introduction

1. **The next 40 years**: Based on the deterioration of the delivery of public goods and services and the lack of meaningful participation of the rural people in income-earning activities and their aspirations to do better, **Vision 2050** is the National Government’s Strategic Directional Statements that will drive the development process over the next 40 years. The nation will strive to achieve the key outcomes through the seven Strategic Focus Areas in the 40 years, if there is:

   - a change in the mind-set of our people;
   - emergence of strong political leadership and will power;
   - improvement in governance;
   - improvement in the service delivery mechanism, underpinned by a committed and competent civil service work force;
   - an improved law and order situation, underpinned by fair and just law-enforcing agencies, and a population with strong morals, where the people respect one another; and
   - the realisation of acceptable growth potentials.

2. **Alignment and Operationalisation**: Vision 2050 has an integrated perspective of development which encompasses institutional development and service delivery, human and social capital development, wealth creation, security and international relations, environmental sustainability and climate change and churches and development. When operationalised, there will be cross-cutting issues, such as institutional policies, budgets and human resources. Programs and policies at all levels will be aligned with the vision. It will have to be institutionalised through appropriate legislation to make it effective.

3. **Transformation**: When the directional statements are implemented efficiently and effectively, Papua New Guinea can be transformed into an upper-middle income country by 2050. It would be better now, rather than later, as perceived by the National Executive Council, under the stewardship of Prime Minister, Grand Chief Sir Michael Somare, to have an overarching strategic plan. The current environment is blessed with political stability and the aspirations of the people for participation in economic development.

4. **Destiny**: The Vision 2050 accepts the nation’s current development status and aspires for PNG to do better in the next 40 years so that it can become a ‘Smart, Wise, Fair and Healthy Happy Society by 2050’. Papua New Guinea will strive to improve its ranking in the United Nations HDI among the top 50 out of 182 countries, by 2050, from the current rank of 148, through the creation of opportunities for personal and national advancement, as a result of economic growth, smart innovative ideas, quality services and a fair and equitable distribution of benefits.

5. **Economy**: In terms of robust economic growth, the modelling for Vision 2050 is quite conservative, even when taking into account the massive LNG projects that are anticipated to come on stream. This is consistent with accepted economic practice. The intention also is to ensure that structural changes in the economy are not dependent on the success of the LNG project, or other projects that are being planned. The most important strategy being mooted is that of a Sovereign Wealth Fund to quarantine the negative impact of large enclave developments on other parts of the economy. Also, if all petroleum and mining projects do come on line, this becomes a bonus for future governments and the use or quarantine of those funds will be determined during the reviews to be conducted as part of the Long Term Development Strategy process.
6. **Assertiveness**: Papua New Guinea can become a Smart, Fair, Wise, Healthy and Happy Society when all the directional statements under Vision 2050 are articulated, institutionalised, operationalised, and implemented, efficiently and effectively.

7. **Summary**

Papua New Guinea Vision 2050 is the final product of the efforts of multitudes of Papua New Guineans from all walks of life, living in both rural and urban settings. We, as Papua New Guineans, have had the opportunity to develop a country of our own in the last 34 years, since we were afforded the opportunity by our forefathers including the Grand Chief Prime Minister Sir Michael Somare, through the attainment of political independence. We have in fact learned all the lessons and made all the mistakes that one could ever make and draw from to do better the next time around. The future of this country is now entirely in our own hands and therefore we cannot place the blame on others if we fail to learn from the past and chart out a new growth trajectory for the future. Indeed, Vision 2050 is a ‘people’s plan’ as well as a living document that should be reviewed in 2019 by the ensuing generation. What we have done here is to set key foundational targets that if implemented well will lay the foundation for the years to come after 2020. For optimal outcomes to be gained, implementation should be done in a cascading manner or hierarchy of strategic intent, whereby the Long Term Development Strategy should first take its cue from the mission statement of Vision 2050; sectoral strategies should in turn develop their visions from the LTDS mission statement; Provincial Development Strategies will likewise derive their visions from that of the LTDS; Districts, LLGs and Wards would then develop operating plans to implement the strategies of high order plans. Effective and timely programme evaluation through a robust monitoring protocol is critical in 2010 with religious application over the next forty year period in order to verify the country’s progress towards the vision and mission statement as well as to ensure that timely corrective actions are taken. Finally, any reorganisation of the Public Service ought to be aligned to the Vision 2050’s mission statement.
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Somare, M., 1974, We Bilong yumi-et poin impruvenm plen/toktok bilong Namba Wan Minista Michael Somare, em bin givim lon Ekonomik Sosaiti bilong Papua NiuGini long Port Moresby


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<tbody>
<tr>
<td>A&amp;E</td>
<td>Accident &amp; Emergency</td>
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<td>AFHS</td>
<td>Adolescent Friendly Health Services</td>
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<tr>
<td>AFASS</td>
<td>Acceptable, feasible, affordable, safe and sustainable</td>
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<tr>
<td>AIDS</td>
<td>Acquired Immunodeficiency Syndrome</td>
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<td>CBO</td>
<td>Community-based Organization</td>
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<td>CRC</td>
<td>Convention on the Rights of the Child</td>
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<td>DHS</td>
<td>Demographic and Health Survey</td>
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<td>FBO</td>
<td>Faith-based Organization</td>
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<td>FHS</td>
<td>Family Health Services</td>
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<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
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<td>HR</td>
<td>Human Resource</td>
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<tr>
<td>IEC</td>
<td>Information, Education, Communication</td>
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<td>IGO</td>
<td>International Government Organization</td>
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<tr>
<td>KAP</td>
<td>Knowledge, Attitude and Practise</td>
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<tr>
<td>KRA</td>
<td>Key Results Area</td>
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<td>LLG</td>
<td>Local Level Government</td>
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<td>NDoH</td>
<td>National Department of Health</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-government Organization</td>
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<tr>
<td>PICT</td>
<td>Provider Initiated Counselling and Testing</td>
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<tr>
<td>PNG</td>
<td>Papua New Guinea</td>
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<tr>
<td>SCET</td>
<td>Second Chance Education Training</td>
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<tr>
<td>SRH</td>
<td>Sexual and Reproductive Health</td>
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<tr>
<td>STI</td>
<td>Sexually Transmitted Infection</td>
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<tr>
<td>UNGASS</td>
<td>United Nations General Assembly Special Sessions on HIV/AIDS</td>
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<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<td>UNFPA</td>
<td>United Nations Population Fund</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>VCT</td>
<td>Voluntary Counseling and Testing</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>YAH</td>
<td>Youth and Adolescent Health</td>
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<tr>
<td>YAHNPCG</td>
<td>Youth and Adolescent Health National Policy Coordination Group</td>
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<tr>
<td>YAHG</td>
<td>Youth and Adolescent Health Group</td>
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</table>
Foreword

Papua New Guinea has a young population with a median age of 20 years, and youth and adolescents (10-24 years) constitute almost 31% of the total population of seven million. 25% of the male and 28% of the female population aged 10 to 14 has had no formal education, according to the Demographic and Health Survey conducted in 2006. The same survey revealed that PNG suffers from a very high maternal mortality ratio of 733 per one hundred thousand live births, and that a significant proportion of these occur in the adolescent age group.

The period of adolescence is a crucial time in the development of an individual where major risk-taking and experimenting occurs. Biologically, children become adults in a relatively short space of time. These rapid changes often leave them vulnerable because they lack the appropriate information, knowledge, skills and access to services that will assist them through their passage to adulthood.

It is also during early adolescence that many of them initiate sexual activity, thus exposing themselves to the associated risks of pregnancy and its complications, abortions and miscarriages, childbirth and its complications, puerperal infections, the social, economic, and mental challenges of young parenthood and the cultural obligations of forced marriages. Unplanned pregnancies and STIs including HIV/AIDS could result without basic education and proper knowledge of preventive measures.

To address these issues, NDoH has prioritized the improvement of sexual and reproductive health for adolescents through its National Health plan’s KRA 5, Objective 5.4. In line with this objective, the NDoH has also recently created an adolescent health unit within the Family Health Services branch of its Public Health division. FHS will continue to nurture the adolescent health unit to specifically address the appalling maternal health indicators faced by our young women. FHS will also play a vital role in designing strategies to address the high maternal and infant mortality rates in PNG, continuing with the recommendations of the May 2009 Report on Maternal Health in PNG.

Adolescent health care needs integrated and holistic approach. Adolescents need protection and support to address many other health issues next to unwanted pregnancies and high prevalence of STI. These include for example abuse of drugs, smoking and drinking, involvement in crimes, mental health issues including suicides, gender inequity, abuse and many others.

This first policy on Adolescent Health aims to highlight adolescent health issues and guide the development and establishment of appropriate infrastructure and strategies to deal with those issues. It is hoped that this policy will encourage decision-makers, health service-providers and adolescents themselves to design and establish user-friendly services that are easily accessible by adolescents and accepted by the communities in which they live.

Hon. Michael B. Malabag, OBE, CBE, MP
MINISTER for HEALTH & HIV/AIDS
Acknowledgments

The National Department of Health appreciates and acknowledges all stakeholders: those who organized the initial and subsequent meetings and workshops, those that actively participated and contributed their ideas and those that critically reviewed earlier drafts of this policy.

The initial idea was born from a combined meeting of the country’s specialist paediatricians and obstetrician/gynaecologists, who then formed a combined committee to begin work on formulating an adolescent health policy.

NDoH also acknowledges UNFPA and WHO for providing technical support towards the development of this policy.

Not the least, NDoH acknowledges the youths and adolescents who represented their peers at the stakeholder workshops and positively contributed their thoughts and ideas.

Mr. Pascoe Kase
Secretary for Health
Executive Summary

This is the first Youth and Adolescent Health Policy for Papua New Guinea (PNG). Much work needs to be done in establishing understanding the need for such a policy. This policy’s first intent is to build awareness amongst sectors within and outside government, of the vulnerabilities of this critical population group upon which the future health and prosperity of the country depends. The second intent is to set out a range of strategies that will establish a Youth and Adolescent Health infrastructure through which the policy can be implemented.

Adolescents face many health problems such as early and unwanted pregnancies, early and unwanted marriages, high prevalence of STIs, abuse of alcohol, tobacco and other substances. They are often vulnerable to violence or involvement in criminal activities, are abused, and face mental health problems such as depression, leading to suicide, among other mental health issues that begin to manifest themselves during this period in human development. They are so often lacking access to health information and services. There is currently very limited capacity in the country to provide health services friendly to adolescents, so strengthening this capacity is a matter of high priority. The Policy response to these issues includes:

1. Strengthening coordination and building capacity to implement YAH activities.
2. Provision of services appropriate and friendly to adolescents.
3. Improving access to information and building awareness on YAH issues.
4. Prevention of risky behaviours of Youth and Adolescents and addressing its consequences.
5. Addressing abuse and neglect effecting physical and mental health of adolescents.
6. Reduction of early and unwanted pregnancies.

There is little strategic information in PNG concerning the health and development status of youths and adolescents. A range of research programmes will be established to fill this data gap.

The implementation of the YAH Policy will require building capacity to implement YAH programmes on national, provincial and district levels. A number of Core Groups will be established for coordination, management, technical input and youth participation. Standardised training programmes for health service staff and others involved in youth and adolescent health will be developed, to build capacity in delivering youth and adolescent-friendly health services.

The NDoH will be the lead agency for coordinating the management and implementation of this policy, through its Family Health Services branch, division of Public Health. The cost is incorporated into the National Health planning and budgetary process. Other stakeholders and development partners will also contribute to the implementation of the policy.
CHAPTER ONE - BACKGROUND

1.1 Intent of Policy

The intention of this policy is to:

1. Guide the development of integration and the establishment of sustainable youth and adolescent friendly health services in PNG.
2. Mainstream the coordination of Youth and Adolescent Health services by the NDoH with other departments, Development partners and other relevant stakeholders.

1.2 Historical Context

Globally, there are more adolescents alive today than ever before, the majority of these living in less developed countries. This has created significant impetus for a globally-supported emphasis on improving services for this age group, including health services. The concern about youth and the health risks they face resulted in the WHO 2011 World Health Assembly resolution 64.28, supported by member states including the Papua New Guinean Government. The document calls for member states to:

- Review policies and strategies in health and other sectors to include youth
- Collect data on young people's health
- Make health systems responsive to young people
- Provide sexual and reproductive health and other health services
- Provide information to protect health
- Ensure multi-sectoral collaboration
- Encourage youth participation

The emergence of new and re-emerging diseases (especially HIV/AIDS or TB) has had a disproportionate impact upon developing countries. It is often the case, particularly where HIV/AIDS and STIs are concerned, that adolescents are at the centre of these epidemics. High STI infection rates are now common within the 15-24 year old age group. Most countries are experiencing a lowering of the age of first sexual experience and rates of adolescent drug and alcohol use continue to cause concern. Teenage pregnancies contribute considerably to high maternal mortality. All these issues highlight the need for greater attention needing to be paid to adolescent health.

The Government of Papua New Guinea has recognized the need to protect and provide appropriate services for the country’s youth and adolescent population. In order to address this need, an Adolescent Health Unit was established within the Family Health Services of the National Department of Health in 2013, and the Government of Papua New Guinea has commissioned the development of this Youth and Adolescent Health Policy and pledged its commitment for its implementation.
1.3 Audience

The Youth and Adolescent Health Policy targets the following institutions, partners, bodies, staff and groups:

- All health professionals;
- Youths and Adolescents;
- Governmental Department and Institutions:
  - National Department for Health,
  - National Department for Education,
  - National Youth Commission,
  - Department of Community Development,
  - Provincial and Local Level Governments,
  - Law and Justice Sector,
  - National Labour Department,
  - National Disability Commission;

- Non-Governmental Organisations;
- Faith Based Organisations;
- Development Partners;
- Media;
- Parents;
- Traditional Community Groups;
- Private Sector.

1.4 Policy Development Process

The Development of the YAH policy was initiated at a combined meeting of the Paediatric and the O&G societies in Port Moresby in 2007. In December 2008 the National Team attended international meeting on improving adolescent health outcomes in the Western Pacific Region. This supported revising of existing data and the regional strategic direction.

A Youth and Adolescent Health National Policy Core Group (YAHNPCG) was established in 2009. The core group comprised of senior representatives from the NDoH, University of Papua New Guinea (UPNG) Medical School, UN Agencies, national and international NGOs as well as representatives of youth and adolescents. The Group investigated the current status of adolescent health in the country and drew up the policy that addresses adolescent health and development needs.
CHAPTER TWO - POLICY CONTEXT AND DIRECTIONS

2.1 Goal

To protect and promote the rights and needs of youth and adolescent for their healthy growth and development by introducing concepts and principles of adolescent health into health care practices in PNG.

2.2 Vision and Mission

Vision:

For all PNG youth and adolescents to be able to live healthy and satisfying lives through making informed health choices within a safe and supportive environment that enables them to embrace Christian and traditional values and contribute meaningfully to nation building.

Mission:

Youth and adolescent have rights to health and health care, personal growth and social and economic development, through the creation of a culture of participation and empowerment of youth and adolescents and through the provision of health services friendly to adolescents.

2.3 Objectives

The policy objectives are:

1. To bring the health needs of youths and adolescents to the attention of government departments and agencies.

2. To build strong collaborative partnerships between the health sector and all relevant stakeholders to support improvement of YAH outcomes.

3. To build sustainable central coordination, networking and technical support arrangements to implement YAH programs.

4. To develop and coordinate research programmes on youth and adolescent health.

5. To provide quality integrated health services friendly to youths and adolescents that respond to their health needs and are delivered in a safe and supportive environment.

6. To encourage youth and adolescents (including marginalized and especially vulnerable groups) to participate in decision making at all levels of health policies development and implementation.

7. To provide a framework for continuous monitoring and evaluation of youth and adolescent health services.
8. To ensure gender balance and respond to abuse caused by gender inequality affecting youth and adolescents.

2.4 Principles

Health services for Youth and Adolescents shall be accessible, acceptable, affordable and appropriate to Youth and Adolescents. They should be attractive, user-friendly and respect human rights to break down barriers and encourage youth and adolescents to take control over their own health. The Youth and Adolescent health services shall be delivered with consideration of Christian and traditional values that put welfare of family and community in the centre of everyday life. They should cover not only the urban areas but also rural majority and marginalized ones. Youth and Adolescent shell be treated with respect and not to be judged by service providers who should conduct their duties with professionalism, confidentiality and loyalty. Therefore developing of Youth and Adolescent Health Policy was guided by the following principles:

1. **Rights to Health Care:** Where every young person and adolescent can use health care services to provide protection and treatment for any disease or disability.

2. **Equitable Access to Quality Health Care:** Where young person and adolescents regardless of social status, cultural background, education, tribal ethnicity, economical status, sexual orientation, geographical setting and urban or rural livelihood are given the same quality of health care services.

3. **Tolerance and Respect to Human Rights:** Where every young person and adolescent can receive health care services including sexual and reproductive health information and services in a confidential way and without discrimination, regardless of socioeconomic status, personal beliefs, health status, ethnicity, gender, or sexual identity.

4. **Holistic and Integrated Approach:** Where every young person and adolescent are receiving comprehensive care combining provisions of different preventive and curative health interventions at the same time when required.

5. **Safe and Supportive Environments:** Where young people and adolescents can receive unconditional care and support by health care providers and care givers who offer their services in empathetic, hospitable and fair manner with respect and protection of rights of youth and adolescents.

6. **Gender Equality:** Where every young person and adolescent regardless of their sex and gender, have equal access to quality health care services, are not discriminated, and allowed for their full and effective participation in life of families and communities.

7. **Appropriateness:** Where YAH programs and services are socially and culturally acceptable and respond to the needs of youth and adolescents.
8. **Evidence Based Services:** Where every young person and adolescent is receiving health interventions that are proved to be effective, documented and internationally recognized.

9. **Freedom of Choice:** Where youth and adolescents can make informed decisions, especially in the area of sexual, reproductive and maternal health.

10. **Cost Effectiveness:** Where allocated funds and other resources justify achieved results.

11. **Sustainability:** Where YAH programs and interventions after initial support of development partners can be successfully integrated into existing services, and continued with available resources and capacity.

12. **Accountability:** Where YAH programs are monitored and relevant stakeholders are held accountable for their implementation results.

13. **Transparency:** Where information on YAH programs, activities and their outcomes are openly shared amongst all relevant stakeholders.

14. **Leadership and Ownership:** Where the National Government takes responsibility for the overall policy coordination and implementation of YAH programs.

15. **Good Governance:** Where implementation of YAH program and activities complies with relevant government processes and legislations.

16. **Partnership:** Where YAH programs and activities are implemented through effective dialogue and collaboration with all relevant YAH health stakeholders to ensure alignment to national priorities the best utilization of limited resources.

17. **Participation:** Where youth and adolescents have access to information and are actively involved in the decision making process on issues affecting their health, especially with regards to policymaking.
2.5 Core Government Legislations and Policies

The following PNG government legislation and policies refer to youth and adolescent health or are playing a key role in supporting the Youth and Adolescent Health Policy:

Acts, Laws and Legislations:

- Lukautim Pikiini Act 2012
- Provincial Health Authority Act 2007
- National Health Administration Act 1997
- Organic Law for Provinces and Local Level Government 1995
- Public Hospital Act 1994
- PNG Constitution 1975

Policies and Standards:

- Vision 2050 (Prime Minister and National Executive Council)
- Development Strategic Plan 2030 (Prime Minister and National Executive Council)
- School Health Policy -2015
- Sexual Reproductive Policy 2014
- Tobacco Control Policy 2014
- Health Sector Partnership Policy 2014
- Family Planning Policy -2014
- National Sexual and Reproductive Health Policy 2014
- Health Sector Gender Policy -2014
- National Disability Policy 2012
- National Health Plan 2011-2020
- Education Plan 2010-2019
- Mental Health Policy 2010
- Child Health Policy – 2009-2020
- National Youth Policy 2007-2017
- National Health Promotion Policy 2003
CHAPTER THREE - POLICIES AND STRATEGIES

3.1  Current Situation on Youths and Adolescents.

PNG is in a state of transition, where traditional cultural values and practices are being challenged by the process of urbanization and increasing influences of western culture. Data from a variety of sources show that youth and adolescents are strongly affected by these changes, and are more vulnerable to certain health risks and health problems compared with children and older adults.

3.1.1  Coordination and Partnership

Some of the adolescent oriented health services are implemented in Papua New Guinea by NGOs and other partners. These are not properly coordinated with few opportunities for public sector, and IGO/NGO sectors to share their organizational work plans and experiences resulting with duplications of responsibilities and miscommunication.

3.1.2  Participation

In PNG, cultural norms and lack of understanding often mean that there are few opportunities for adolescents to participate meaningfully in important decisions regarding their health issues. It is generally agreed that adolescent are not adequately involved and consulted in establishing adolescent health services.

3.1.3  Strategic Youth and Adolescent Health Data in PNG.

There are limited data available on adolescent health. Most available data comes from the Demographic and Health Survey (DHS) conducted in 2006 and other surveys carried out by different partner organisations mainly at provincial level. Hospital annual reports and school entry immunization records serve as additional sources of information on adolescent health.

3.1.4  Teenage Pregnancy

The Demographic Health Survey 2006 found that 4% of youth aged 15-24 had sexual intercourse before age 15 and 16% of women gave birth to their first child before reaching age 18 years. Pregnancy occurring in a physically immature girl is frequently the cause for difficult prolonged labours resulting in stillbirths, obstetric fistulas and maternal deaths. Many pregnant and unmaried girls leave school due to stigma and lack of social support. Unwanted pregnancies results in putting adolescents in vulnerable situations, compromising their socio-economic status as well as mental and physical wellbeing.

3.1.5  Spread of STIs and HIV/AIDS

A substantial proportion of youth (26%-63% depending on the specific age group and place of the study) had more than one sexual partner in the last 12 months. According to PNG National AIDS Council Secretariat only about 27% of respondents reported to use a condom during their first sexual intercourse. Other survey revealed that around 25%
of adolescents reported symptoms of STIs. In 2007, HIV prevalence among youth aged 15-24 years was 0.6% for males and 0.7% for females.

3.1.6 Low Access and Usage of Contraceptives for Adolescent.

Available qualitative data suggests that adolescents are teased, discouraged, threatened, or refused information and contraception at health facilities. Health service providers lack knowledge and skills to cater for adolescent SRH needs. The use of modern contraceptives is being promoted in the context of marriage and birth spacing and fails to target unmarried adolescents. Peer pressure, religious, cultural and community beliefs and practises limit access and use of much-needed family planning services.

3.1.7 Unsafe Abortion

Termination of an unwanted pregnancy is illegal in PNG. There are very specific conditions under which an abortion can be performed in a public health system. Despite lack of official data, it is believed that unsafe abortions are being performed by uncertified ‘abortionists’ often leading to serious complications such as haemorrhage, septicaemia and death.

3.1.8 High Level of Violence Against Women

Violence against females, including sexual violence is prevalent in Papua New Guinea. It is driven by a culture of mostly male dominance. Family violence seems to be a regular feature in the lives of women, children and adolescents. It is often triggered by alcohol or the use of other intoxicating substances. Polygamous relationships and coerced marriages are common in PNG, frequently leading to violence, family disruptions and can end in casualties including death.

3.1.9 High Incidences of Forced Sex and Rape

According to 2006 DHS, nearly 50% of unmarried 15-24 year old males reported forcing their partner to have sex. Surveys conducted by save the children (2007) and USAID & FHI (2011) reported that the majority of females had their first sexual experiences against their will. Rape is common and few rapes are reported to the police due to shame and fear. There are very few Family Support Centres providing psychosocial and medical services to victims of abuse, violence and rape nationwide.

3.1.10 Crime, Violence, Trauma and Injuries

Young people are the main perpetrators of crime and violence in Papua New Guinea. Adolescents involved in criminal activities are often out of school or unemployed due to social disadvantages. A report from Mt. Hagen hospital showed that 40% out admissions to Emergency Department were alcohol-related. Majority of victims in the mid 20’s and were found to be involved in the consumption of homebrew. Males constituted of 60% of admissions.
3.1.11 Abuse Leading to Health Problems

Youth and Adolescents in PNG are exposed to various forms of emotional, physical, and verbal abuse. These include being witness to abuse, violence and crime. Young girls are often forced into sex work as a form of income earning activity to support their own or their family’s daily needs. Many of these coerced relationships result in STI/HIV, unwanted pregnancies, and dropping out of school.

3.1.12 Alcohol, Tobacco and Other Substance Abuse.

It is observed that PNG adolescents drink alcohol (especially homebrew), use marijuana, smoke cigarettes and chew betel nut. According to Police statistics alcohol and drug-fuelled crime, violence, family disruptions and other social problems are often caused by young people. Though side effects of homebrewed alcohol have not been studied in Papua New Guinea, existing data and hospital records suggest a strong relationship between home-brew consumption with liver and mental health complications.

3.1.13 Nutritional Status

Appropriate nutrition during adolescence is essential for proper physical growth, mental development, health and wellbeing. The National Nutritional Survey conducted in 2005 found that anaemia is widespread in women of child-bearing age including adolescents. Processed foods become the main menu of young people in urban setting increasing the risk of non-communicable diseases.

3.1.14 Mental Health

The data on mental health in Papua New Guinea are limited. Information gathered by the Mental Health Unit points that adolescents feature among patients suffering from schizophrenia and schizoaffective disorder, bipolar disorder, organic psychosis, substance and alcohol abuse related disorders, anxiety, depression, stress related disorder and mental disorders related to: sexual abuse, physical abuse and violence. There are also recorded cases of suicides or attempts of suicides among adolescents.

3.1.15 Health Awareness

Youth and Adolescents have rights to health and should be protected against health risks and diseases. UNGASS 2010 report shows that preventative programmes are not reaching youth and adolescents. Only 21% of respondents aged 15-24 years that are at the centre of the HIV/AIDS epidemic in PNG could correctly identify ways of preventing the sexual transmission of HIV and reject major misconceptions about HIV transmission. According to SCET study, SRH programs for youths have been directed at raising awareness through Information Education and Communication (IEC) approaches rather than delivering services.

3.1.16 Access to Health Services

There are few adolescent friendly health services (AFHS) available in PNG. Those that do exist are frequently based on insecure project funding with little sustainability. The SCET study showed that SRH services for adolescents are limited and suffer from poor
access and underutilization. It is generally agreed that majority of the adolescent in Papua New Guinea do not have access or do not utilize any health services.

3.2 Analysis of Issues

Findings from surveys, studies and observations presented in chapter 3.1 identified number of challenges and problems affecting the health of adolescents. These challenges and problems need to be addressed and resolved to improve youth and adolescent health outcomes in the country.

3.2.1 Central Coordination

The Youth and Adolescent Health Program requires more centralized coordination and ownership by the National Department of Health. The program needs to be strengthened and supported with adequate funding and human resources. Central coordination is important for improving overall planning and implementation of YAH programs, collection and analysis of data and setting national research agenda on youth and adolescent health.

3.2.2 Partnership

Implementation of the YAH policy and programs requires effective involvement of all relevant stakeholders. NDoH as lead agency needs to coordinate, strengthen health systems and facilitate a comprehensive approach to the promotion of adolescent health and share information with its partners in line with the National Health Partnership Policy.

3.2.3 Participation

Youths and adolescents need to be involved in planning and implementing programs that seek to address their perceived needs. It is vital to involve communities, church and village leaders in adolescent-oriented health programs. Parents and care takers of youth and adolescents require education to understand the behaviours and practices of adolescents, in order to strengthen their support for youth and adolescent health programs.

3.2.4 Data Collection and Research on Adolescent Health

A lack of reliable, accurate, and appropriate data collection system, as well as the usage of any existing data or generation of new research in the area of adolescent health is a central problem at the root of the dearth of effective interventions targeting adolescents and young people at all levels of government. Without a database and research that measure the scope and specific nature of the needs of adolescents, informed, evidence-based interventions cannot be executed. In order to both design an effective strategy to address burning priorities in YAH for Papua New Guinea, as well as assess any progress, a systematized plan for routine data collection to include adolescents in health indicators (or better disaggregated data by age and sex) and in-depth research must be put into place and operationalised.
3.2.5 Sexual and Reproductive Health Services for Youths and Adolescents.

PNG adolescents lack knowledge and skills of using and access to contraceptives and other sexual and reproductive health services. This lack of access means adolescents are exposed to the negative consequences of risky behaviour, such as unprotected sex, which can potentially lead to transmission of STI/HIV or result in unwanted pregnancy. There are few adolescent friendly health services (AFHS) available in PNG. Those that do exist frequently rely on insecure project funding with little sustainability. Acceptable and appropriate sexual and reproductive health services for youth and adolescents needs to be developed and their sustainability ensured.

3.2.6 SRH of Adolescents and Maternal Mortality.

Thirty percent of maternal deaths occur in women less than 20 years of age. Prevention services being provided in PNG are not being used or accessed-antenatal coverage rates are low, supervised delivery rates are low, little postpartum care is offered or used and contraceptive use is low. The negative effect of unsafe abortion on maternal health is well researched and documented-including complications such as haemorrhage, infection, pain, infertility and death. The present laws regarding termination of pregnancy increase the risk for many women of unsafe and often fatal abortions, poor access to safe abortion and post-abortion care, and often confused health workers regarding the management of septic abortion-resulting in women’s deaths and disability. (Ref: Ministerial Taskforce on Maternal Health Report 2009).

3.2.7 Gender Based Violence

PNG society is mainly patriarchal, where men influence decision making and play a dominant role at all levels and situations. Women generally lack self-esteem and confidence. This leads to female adolescents being forced to engage in sexual relations against their will and intention. Lack of negotiation skills, financial and economic insecurity and low social status adds to their vulnerability. They often become victims of abuse and rape. Some of the violence is influenced by social mass media and alcohol and substance abuse. Family violence is a regular feature in the lives of women, children and adolescents, often triggered by alcohol intoxication. Polygamous relationships or coerced marriages are generally common in PNG, frequently the cause for violence and abuse of women.

3.2.8 Crime, Violence, Trauma and Injuries.

High rate of school dropout, lack of employment and peer pressure lead to involvement of youths and adolescents in criminal activities. These together with alcohol and substance abuse result in violence, trauma and injuries. Family break-ups, lack of role model in society and being abused contributes to increases in inappropriate behaviour of youth and adolescents. It is recognized that involvement of youth and adolescents in crime and violence is one of the most important factors affecting youth and adolescent health outcomes.
3.2.9 Abuse Leading to Health Problems

Abuse leading to health problems is widespread across the country due to number of reasons including neglect and underreporting. Health care providers have to be properly instructed and inducted on procedures to be implemented in case of actual and suspected abuse of youth and adolescent. Development of guidelines and training of service providers on reporting and responding to abuse cases is a crucial element of the national response to abuse and violence.

3.2.10 Alcohol, Tobacco and Substance Abuse

Lack of information on dangers of alcohol and drug among adolescents, weak policies and regulations to protect young people as well as peer pressure lead to alcohol and substance abuse. Alcohol (including home-made brew characterised by increased toxicity) and substance abuse (especially marijuana) are associated with high prevalence of violence and injuries in young people.

3.2.11 Nutritional Status

Poverty, rising cost of living and the shift towards consuming processed food results in inadequate quantity and quality of daily food available. Lack of education on nutrition and other health issues related with diet as well as cultural taboos impact the nutritional status of communities and are leading to high prevalence of anaemia and delayed growth and development of youths and adolescents.

3.2.12 Mental Health and Personal Development

Abuse of alcohol and insecure social status, being victims or witnesses of abuse and crimes effects mental well-being of adolescents. The neglect of mental health can further result in aggravation of risky behaviours of adolescents including suicide. Improving mental health services will result in improved physical health, enhanced productivity and increased stability of youth and adolescents, vital for their healthy personal development.

3.2.11 Right to Health Services

All youths and adolescents have universal rights to health services. The PNG health delivery system lacks the appropriate and acceptable services which recognizes and respects the rights of youths and adolescents to seek the health care that they deserve. Lack of appropriately trained and sensitized personnel to deal with cultural barriers and the lack of knowledge by youths and adolescents about their right to access health services and to make informed choices, contributes to underutilization of health services by adolescents.

3.2.12 Right to Health Education

Youth and adolescents have a right to be provided with appropriate and accurate knowledge on how to protect themselves against illness and injury, including the consequences of drugs, sexual abuse, exploitation, and how to prevent pregnancy, STI
and HIV infection. Adolescents also need to be educated on attitudes and behaviours that will enable them to develop respect for themselves, sensitivity in gender relations, including respect of women’s self-determination in matters of sexuality and reproduction.

### 3.3 Policy Response

#### 3.3.1 Policy on Coordination

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<thead>
<tr>
<th><strong>Strategies:</strong></th>
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<tbody>
<tr>
<td>1. Every stakeholder and concerned parties have access to the YAH policy and operational guidelines.</td>
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<tr>
<td>2. Youth and Adolescent Health Services in PNG are supported by functional structure at national, provincial, district and local levels.</td>
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<tr>
<td>3. Activities relating to Youth and Adolescent in the country are properly planned and coordinated.</td>
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<tr>
<td>4. National YAH Data Base is part of the National Health Information System.</td>
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<tr>
<td>5. Implementation of YAH Policy is supported by research.</td>
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#### 3.3.2 Policy on Partnership

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<tr>
<th><strong>Strategies:</strong></th>
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<tbody>
<tr>
<td>1. All relevant YAH stakeholders involved in strengthening YAH programs are working in accordance with the Health Partnership Policy.</td>
</tr>
<tr>
<td>2. Every stakeholder and concerned parties have access to the YAH policy and operational guidelines.</td>
</tr>
<tr>
<td>3. Stakeholders activities and programs are reported on a regular basis to the NHIS or NDoH</td>
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3.3.3 Policy on Participation

Promote the meaningful participation of youth and adolescents in the design, development, implementation and monitoring of programs and policies related to YAH programs at the local, district and national level.

**Strategies:**

1. Youths and adolescents have access to information, education and services available for their specific needs.
2. Youth and Adolescents actively participate in local YAH programs and activities.
3. Parents and community members understand and actively support YAH outcomes.

3.3.4 Policy on SRH of adolescents and Prevention of Unplanned Pregnancy

Prevention of early and unwanted pregnancies and adverse reproductive outcomes through improved sexual and reproductive health of adolescents is an integral part of the national response to reduce maternal mortality.

**Strategies:**

1. Youths and adolescents have knowledge on sexual and reproductive health issues.
   - Collaboration between NDoH and NDoE.
   - Advocate for and plan review of the curricula on SRH topics in schools and teacher training institutions
   - Revise school and teacher training institution curricula to include or update topics on SRH.
   - Improve and maintain capacity of teachers to teach SRH topics through in-service and training workshops.
   - Advocacy and awareness programs on SRH to all districts targeting out of school teenagers.
   - Advocacy and awareness using mass media.

2. Youths and adolescents have easy access to quality reproductive health services and commodities.
   - Access to adequately resource adolescent friendly health care facility.
   - Access to confidential SRH counselling and treatment of STIs including HIV.
   - Access to reliable and safe modern methods of family planning. E.g. implants, IUDs.
   - Pregnant adolescents have right and access to appropriate care and support.
   - Every pregnant adolescent has access to skilled antenatal, childbirth and post-natal care and follow up.
- Advocate for legislation to protect the SRH rights of adolescents.
- Legal age of marriage is increased from 16 to 18 years.
- Outlaw marked marriages and childhood marriages.

### 3.3.5 Policy on Gender Based Violence

Poor implementation and monitoring/enforcement of the laws relating to gender based violence create poor health outcomes for many women (and children), and violence in pregnancy is associated with many negative consequences for maternal and foetal health (Ref: Mat Health Report 2009)

**Strategies:**

1. Legislation, policing, social sanctions and community attitudes are critical to ending the violence.

2. Abandoning generalizations and negative attitudes, along with being open to providing support to perpetrators, is important in providing successful treatment.

3. Family and Community to nurture, protect, guide and provide refuge for all its members.

### 3.3.6 Policy on Abuse and Neglect

Considerations of abuse and neglect should be observed and appropriately responded to by all health care service providers and other relevant bodies, families and the community

**Strategies:**

1. All health workers have the skills to recognise and manage suspected and actual cases of abuse of youth and adolescents.

2. Ensure that referral protocols for abuse and neglect are available in each health facility in the country and in all institution that could be involved in providing care for cases of abuse and neglect of adolescents.

3. Every case of youth and adolescent abuse is responded to appropriately and reported.

4. Every youth and adolescent is aware of services that are dealing with adolescent health issues in their area.

5. Every youth and adolescent is protected by law against abuse, neglect and forced sex.
3.3.8 Policy on Alcohol, Tobacco and Substance Abuse

Information and education on the dangers of alcohol, tobacco and substance use and abuse is available and accessible to youths and adolescents.

**Strategies:**

1. Prevention and response to the dangers of alcohol, tobacco and substance use and abuse are part of the YAH programs.
2. Harmful and dangerous cultural practices affecting YAH are addressed and discouraged.
   - School cult activities are banned in all schools.
   - Traditional initiation rites of passage based on healthy practices are encouraged.
   - Educate and emphasise on positive aspects of peer group interactions.
3. Ensure appropriate and effective policies and regulations are in place to protect adolescents against alcohol, tobacco and substance abuse.

3.3.9 Policy on Nutrition

A holistic approach to providing YAH services must address the important value of nutrition on the development of the adolescent. Strengthening health education and information on nutrition is critical in promoting the general health of youths and adolescents, and adopting a life-course approach in the prevention of non-communicable diseases (NCDs) through healthy-eating behaviours.

**Strategies:**

1. Strengthen collaboration with DoE to incorporate nutrition education in schools to increase knowledge of adolescents on the value of nutrition on their general health status and in the prevention of nutrition-related NCDs.
2. Improve knowledge of health workers in addressing issues of under nutrition including anaemia and stunting, over nutrition and unhealthy eating behaviours to prevent adolescent obesity, a precursor of diabetes and other NCDs.
3. Collaborate with health programmes and health services to support an integrated approach to detect early nutritional risk factors that potentially cause childhood and adolescent obesity.
4. Integrate healthy nutrition in various Adolescent Health interventions to scale up the promotion of healthy diets and other healthy lifestyles – such as regular physical activity and avoid smoking, betel nut chewing and alcohol among youths and adolescents.
3.3.10 Policy on Mental Health

Promoting holistic psychosocial, emotional and intellectual development of adolescents minimizes their high-risk behaviours and enhances healthy personal development. Interventions in Adolescent Health should integrate mental health services in all settings— in homes, communities and schools.

**Strategies:**

1. Strengthen effective leadership for mental health that promotes effective integration of mental health in adolescent health programmes.
2. Provide integrated and responsive mental health and social support in community-based and school-based settings.
3. Collaborate with schools to strengthen early detection of mental health problems among students and adolescents, and provide appropriate counselling and referral if necessary.
4. Collaborate with Mental Health unit of hospitals (starting with Port Moresby General Hospital) to establish an outreach program that reaches out to schools and undertake annual mental health assessments for students.
5. Establish effective linkages between the antenatal clinics and the Mental Health Unit of hospitals so that young adolescent parents can be reached with counselling that helps their mental health status during pregnancy and after births.
6. Work with church based and community based institutions to minimise stigma and discrimination for young people with mental disability

3.3.11 Policy on Youth and Adolescent Health Services

Youth and Adolescent Health services must be appropriate and user-friendly.

**Strategies:**

1. Youths and adolescents are educated and informed of their rights to health services.
2. YAH services are strategically located to support access for youths and adolescents.
3. Provision of YAH services is done by appropriately trained and sensitized personnel.
4. All health training institutions in the country have NDoH-approved YAH curriculum incorporated in their training programs.
5. Implementation of YAH training is supported by provision of adequate funding and other resources at all levels.
6. Youth and adolescent health services responds to the needs of youths and adolescents:
3.3.12 Policy on Health Education and Awareness on YAH issues.

Health education and information on youths and adolescents shall be made available and accessible to the general population.

**Strategies:**

1. Education on Youth and Adolescent Health is provided in all schools.
2. Training aids and manuals on YAH are available in every school in PNG.
3. All communities have structures to provide education on YAH
CHAPTER FOUR - IMPLEMENTATION PLAN

There is evidence of youth and adolescent health services being carried out in the country but on a small scale, mainly by non-government stakeholders in areas not served by existing government health services. This policy is aimed at mainstreaming the coordination and delivery of YAH services into the public health service delivery system. NDoH, supported by its development partners, has taken a lead role in setting directions for YAH service through the development of this policy and will coordinate its implementation, monitoring and evaluation as well as provide ongoing technical support towards provinces and districts in implementing this policy.

Implementation of this Policy will be in a phased manner according to resources available and existing capacity. NDoH will develop guidelines for health managers on how to implement the YAH Policy at the provincial and district levels. The next step includes support in planning adolescent health activities and building capacity to improve adolescent health outcomes, and mobilizing and securing adequate resources. Standardised training programmes for health service staff and others involved in youth and adolescent health will be developed, to provide skills and knowledge to deliver youth and adolescent-friendly health services. Local Level Government (LLGs) will also play a crucial role in implementation of YAH Policy through support to establish YAH services at community health posts and conducting awareness on youth and adolescent health to local populations.

NDoH will be the lead agency for coordinating the management and implementation of this policy, through its Family Health Services branch, division of Public Health including coordination of activities of other adolescent health stakeholders such as education department, development partners or NGOs.

Following implementation of the health reforms in Papua New Guinea, primary focus on Youth and Adolescent Health will be given to provinces rolling out Provincial Health Authority Act and those that face the most serious issues affecting adolescents.

The list of responsibilities of activities related with implementation of this Policy at each level is presented in Annex one.

4.1 Resource implications on the YAH Policy

The National Government’s Free Health Policy launched in 2012 will ensure constant provision of adequate resources in all health facilities to address health issues confronting adolescents. All provinces and districts are to integrate YAH services into existing health care delivery programs, whilst developing plans on establishing stand-alone youth-friendly services into the future. PNG’s Development Partners and non-government stakeholders are required to collaborate with government at NDoH level in sharing resources and coordinating activities. Implementation of the YAH policy is estimated at 8.6 million kina over the next seven years from 2013 to 2020, however to fulfil all the obligation towards adolescents, the Government needs to mobilize
additional resources that has to be channelled through provinces and districts. The cost of implementation of the policy on SHR of adolescents and maternal mortality is reflected in the overall Sexual and Reproductive Health Strategic Plan 2014-2020.

4.2 Staffing Implications on the YAH Policy.

Proper implementation of the YAH policy will require the government’s commitment to increase staffing levels at all points of health care delivery. The NDoH has established positions for a technical advisor, a technical officer a program officer and administration assistant.

In the longer term, all provincial and district administrations will also be required to create and fund staff positions for adolescent health officers who will be responsible for formulating and implementing YAH related activities, according to their local needs. An alternative to recruiting new staff is to up skill and support training of existing health staff to understand adolescent health issues and provide appropriate services.

4.3 Service Implications on the YAH Policy.

Implementation of this policy is expected to impact positively on the outcomes of adolescent health indicators in PNG. However, successful implementation will depend on the government’s commitment to provide resources including infrastructure for YAH services. When established, YAH services will be more accessible to youths and adolescents. In terms of clinical care adolescents will be segregated from adults and children and accorded the specific services they require; this may, however cause shortage of manpower requiring further spending of money on recruitments. Existing health services will need to be reorganized and expanded to cater for implementation of the YAH policy. An opportunity exists also for current health care workers to be supported by training opportunities towards providing care for adolescents.
CHAPTER FIVE - MONITORING AND EVALUATION

Monitoring and evaluation of the Youth and Adolescent Health Policy will be done through the collection of age segregated (10-19 years) data for a series of health Performance Indicators, that will be routinely reported by the provincial hospitals and other health facilities through the NHIS. To further enhance accurate reporting of YAH indicators, adolescent specific indicators will be integrated into the NHIS reporting system.

Questionnaires used in collecting data for the DHS will be modified to capture the adolescents by specific age and sex/gender.

Findings and conclusions drawn from officially approved researches and surveys conducted will also serve as monitoring and evaluation tools.

Non-government stakeholders providing adolescent health care are expected to collaborate with NDoH in sharing information and resources.

<table>
<thead>
<tr>
<th>Adolescent and Youth Health Indicator</th>
<th>Measure</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>STI and HIV</td>
<td>% of adolescents and young people with STI and/or HIV</td>
<td>STI / HIV surveillance systems to include disaggregated data on adolescents and young people.</td>
</tr>
<tr>
<td>Sexual activity</td>
<td>Age of first sex</td>
<td>Disaggregated data by age and sex collected through newly developed research protocols</td>
</tr>
<tr>
<td>Sexual activity</td>
<td>% of adolescents and young people who have had sex in the last six months</td>
<td>Disaggregated data by age and sex collected through newly developed research protocols</td>
</tr>
<tr>
<td>Use of condoms for prevention of both pregnancy and HIV/AIDS and other STIs</td>
<td>% of adolescents and young people who use condoms during sexual intercourse</td>
<td>Disaggregated data by age and sex collected through newly developed research protocols</td>
</tr>
<tr>
<td>Rates of pregnancies in adolescent and young people age group (intended and unintended)</td>
<td>% of pregnancies</td>
<td>Age disaggregated data collected through newly developed research protocols</td>
</tr>
<tr>
<td></td>
<td>% of married adolescents</td>
<td>Age disaggregated data collected thorough existing protocols</td>
</tr>
<tr>
<td>Category</td>
<td>Indicator</td>
<td>Measurement</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Youth and adolescent maternal death and disability for young mothers</td>
<td>% of youth and adolescent maternal mortality</td>
<td>Age disaggregated data collected thorough existing reporting mechanisms adapted to identify youth data</td>
</tr>
<tr>
<td>Rates of unsafe abortion for youth</td>
<td>% of reported referrals for unsafe abortion</td>
<td>Age disaggregated data collected thorough existing reporting mechanisms adapted to identify youth data</td>
</tr>
<tr>
<td>Use of health services</td>
<td>% of adolescents and young people who have used a health facility</td>
<td>Disaggregated data by age and sex collected through newly developed research protocols</td>
</tr>
</tbody>
</table>
Implementation of this policy requires concerted support from all relevant stakeholders identified as audience in this policy. Each with defined roles and responsibilities as stipulated under the Organic Law on Provincial and Local Level Government Act 1995, National Health Administration Act of 1997, Provincial Health Authorities Act 2007 and the Public Hospitals Act 1994 will play their part in the operationalizing this policy.

1. National Level

Responsibilities of National Level agencies and officers are to:

- Provide leadership, advice and support on YAH service at all levels of the health delivery system.
- Develop and review policies, operational guidelines and standards on YAH service to guide implementers.
- Incorporate YAH reporting requirements into the NHIS.
- Negotiate for funding or other support for capacity building for YAH programs at all levels.
- Coordinate the implementation, monitoring and evaluation of the YAH policy and programs.
- Advocate for and facilitate review of existing training curricula on YAH for both in-service and pre-service
- Encourage and advocate for provinces, hospitals and provincial health authorities to create staff positions for YAH at all levels.
- Strengthen partnerships with all relevant stakeholders at the National Level
- Encourage and advocate for formal partnerships of existing registered YAH support groups to the provincial health offices, hospitals and health centres.
- Advocate for and provide technical support to health facilities and other service providers to introduce, strengthened and promote YAH services.
- Develop research agenda, coordinate and endorse research in YAH.
- Facilitate data base on YAH in PNG.
- Organize and facilitate national conferences, workshops and public events on YAH.
- Encourage and involve youth and adolescent in YAH activities at national level.
- Establish and coordinate National Adolescent Health Advisory Committee and Working Group.
- Advocate for political and financial support for YAH activities from local leaders and stakeholders.

2. Provincial Level

- Coordinate implementation of the policy at the provincial level.
- Advocate and establish YAH services in the province according to approved NDOH standards and guidelines.
• Provide technical support to district, local levels, NGOs and other relevant partners.
• Maintain effective collaboration and liaison with all relevant stakeholders at the provincial, district and LLG levels.
• Coordinate planning and budgeting for YAH services at the provincial, district levels and local levels.
• Establish and provide YAH services in the district hospitals and community health posts.
• Advocate for and create YAH staff positions in district hospitals.
• Participate in, monitor and report on program activities to national level on a regular basis.
• Advocate for and create YAH coordinator positions in provinces.
• Support research activities on YAH.
• Support training of existing staff to provide YAH services.
• Encourage and involve youth and adolescent participation in YAH activities at provincial, district and local levels.
• Support organization of conferences, workshops and public events on YAH.
• Establish Provincial Adolescent Health Working Group according to provided guideline.
• Participate in activities organized by National Adolescent Health Working Group.
• Advocate for political and financial support from local communities.

3. Provincial Hospital Level

• Establish and provide adolescent-specific services.
• Advocate for YAH services to clients, patients and surrounding communities.
• Participate in, monitor and report on program activities to provincial and national level on a regular basis.
• Support research activities on YAH.
• Advocate for and create YAH coordinator positions in hospitals.
• Support training of staff to provide YAH services.
• Encourage and involve youth and adolescent in YAH activities at the hospital.

4. Provincial Health Authority Level

• Provide leadership, advocate and establish YAH services at all levels of the provincial health authority system according to approved NDOH standards and guidelines.
• Establish and provide YAH services in the provincial hospitals, district hospitals and community health posts.
• Advocate for and create YAH staff positions in provincial, district and local government levels.
• Coordinate implementation of the policy at the provincial, district and hospital facilities.
• Provide technical support to district, local levels, NGOs and other relevant partners.
• Maintain effective collaboration and liaison with all relevant stakeholders at the provincial, hospital, district and local levels.
• Coordinate planning and budgeting for YAH services at the provincial, district and local levels.
• Participate in, monitor and report on program activities to national level on a regular basis.
• Advocate for and create YAH staff positions in province, districts and local government levels.
• Advocate for YAH services to clients, patients and communities within the province.
• Support research activities on YAH.
• Support training of staff to provide YAH services.
• Encourage and involve youth and adolescent participation in YAH activities at provincial, district and local levels.
• Support organization of conferences, workshops and public events on YAH.
• Establish Provincial Adolescent Health Working Group according to their needs to provide operational guidelines.
• Participate in activities organized by National Adolescent Health Working Group.
• Advocate for political and financial support from local communities/political leaders.

5. **District Level**

• Establish and provide YAH services at the district hospitals and community health posts according to approved NDOH standards and guidelines.
• Advocate for and create YAH staff positions in district hospitals.
• Conduct awareness on YAH activities to local population.
• Participate in, monitor and report on program activities to provincial level on a regular basis.
• Support training of staff to provide YAH services.
• Support research activities on YAH.
• Participate in planning and budgeting for YAH services at the provincial, district and local levels.
• Maintain effective collaboration and liaison with all relevant stakeholders at the district and local levels.
• Provide technical support to local level government, NGOs and other relevant partners.
• Encourage and involve youth and adolescent participation in YAH activities at district and local levels.
• Support organization of conferences, workshops and public events on YAH.
• Participate in YAH activities organized by National and Provincial Adolescent Health Working Groups.
• Advocate for political and financial support from local communities and political leaders.
6. **Local Level Government**

- Establish and provide YAH services at community health posts according to approved NDOH standards and guidelines.
- Conduct awareness on YAH activities to local population.
- Report on program activities to district level on a regular basis.
- Support training of staff to provide YAH services.
- Advocate for political and financial support from local communities and political leaders.
- Participate in YAH activities organized by National and Provincial Adolescent Health Working Groups.
- Support research on YAH and evaluation of the YAH programs.
- Maintain effective collaboration and liaison with all relevant stakeholders at the local level government.
- Provide organizational support to local NGOs and other relevant local partners.
- Encourage and involve youth and adolescent participation in YAH activities.
- Support organization of public events concerning youth and adolescents.

7. **Non-Government Organizations**

- Conduct awareness on YAH activities to local population.
- Support training of local communities to provide YAH services.
- Advocate for political and financial support from local communities and political leaders.
- Participate in YAH activities organized by National and Provincial Adolescent Health Working Groups.
- Support research and evaluation of the YAH programs and activities.
- Maintain effective collaboration, liaison and organizational support amongst all relevant stakeholders at all levels.
- Monitor and report on program activities to provincial level at quarterly intervals.
## ANNEX TWO: DEFINITIONS

<table>
<thead>
<tr>
<th><strong>Age definitions</strong></th>
<th>The UN definition of adolescents covers the ages of 10-19 years. A further definition used by the UN is of young people who are 10 – 24 years and youth who are 15-24 years.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Abuse</strong></td>
<td>Intimidation or manipulation of another person or an intrusion into another's emotional or social state; the purpose is to control another person. It can be physical, sexual, emotional and verbal.</td>
</tr>
<tr>
<td><strong>Level and context of sexual activity</strong></td>
<td>Term referring to the age, extent of and situation in which sexual activity amongst young people and adolescents occurs. This includes consensual and non-consensual or forced sex, unsafe or unprotected sexual activity (sex without using a condom) or while using alcohol or other substances, ritualised intercourse, pre or post marital sex, sex work, men who have sex with men, under age sex.</td>
</tr>
<tr>
<td><strong>One stop shops</strong></td>
<td>A facility set up to provide many services in one place on a temporary basis and at specific times, such as once a week. Through targeted publicity and social networking, information on the times the “one stop shop” is open and range of services it provides can be designed so that the groups the facility is intended to serve are informed of its activities.</td>
</tr>
<tr>
<td><strong>Risky Behaviours</strong></td>
<td>Behaviours and actions taken directly or indirectly are leading to increase chance of illness or disability. These include for example early sexual activity, truancy or alcohol and drug abuse.</td>
</tr>
</tbody>
</table>
The Development of this publication was coordinated by the National Department of Health and was approved by the National Executive Council of PNG on 12 April 2014, through NEC DECISION No: 171/2014.
ANNEX 5: APPROACH AND METHODOLOGY

APPROACH

PNG will be one of 24 first time presenters of a Voluntary National Review (VNR) to the 2020 High Level Political Forum on Sustainable Development (New York, 7-16 July 2020). The SDG Knowledge Hub quotes from the “2030 Agenda for Sustainable Development”, paragraph 79, that Member States should “conduct regular and inclusive reviews of progress at the national and sub-national levels, which are country-led and country-driven.” These reviews should be “in line with national circumstances, policies and priorities.” It is noted that national parliaments and other institutions “can also support these processes.” One of the aims of this case study is to inform PNG’s VNR.

Due to the dearth of national level data, and as noted in the IAP Case Study Template, PNG is not categorized in any of the UHC ‘quadrants’. Additionally, given the decentralized nature of PNG governance, it was agreed with IAP that focusing on a selected province, East New Britain (ENB), would provide the most fruitful case study.

The ENB Case Study was structured around the three objectives and the “accountability conceptual framework” (see Annex 6) as set out by the IAP:

Objectives:

1. Understand what accountability means to different stakeholders in the country, and why it matters for women’s, children’s and adolescents’ health throughout the life course
2. What supports/enables accountability on UHC, human rights and sustainable development goals in the country and what accountability barriers obstruct progress
3. Using an accountability lens, identify 3-5 actions that could be undertaken to drive the change that is needed

METHODS

Due to PNG’s decentralized governance and health care provision it was not viable to provide a comprehensive country-wide overview. We gathered original data from one province (East New Britain) and supplemented this by reference to exiting data sources and a Multi-Stakeholder Dialogue (MSD) meeting consisting of a range of partners from across the country, from both government, international and non-government agencies. In ENB we conducted separate focus groups with women, men, adolescent boys and adolescent girls. This was complemented by in-depth interviews from key informants (from government, non-government, and academia) engaged in women’s, children’s and adolescent health.

January 2020: Review of relevant key data sources and policy documents and selected academic articles.

Drafting of individual focus group topic guides and key informant interview schedules.

Training of research staff in Kokopo and revision of research instruments.
Jan-Feb 2020  Focus Groups conducted: Women; Men; Adolescent Females; Adolescent Males.

February 2020: Review of Focus Group transcripts and revision of key informant interview schedules.

February 2020: Twelve Key informant interviews conducted.

March 2020: Thematic analysis of qualitative data and draft report.

April 2020: Draft report circulated for critique.

April 2020: Multi-Stakeholder Dialogue Meeting.

April-May 2020: Report revision and submission.

May 2020: Final report revision and submission to IAP.

May-June 2020: Video production and roll-out.
Background

The IAP will publish a report in May 2020 in support of strengthening accountability within Universal Health Coverage (UHC), focusing on those furthest left behind on health and SDGs: often women, children and adolescents (WCA) and others in the most fragile settings. Chapter 4 of the report will present four country case studies on actions for accountability as a way of amplifying country experiences and the voices of women, children and adolescents. This concept note provides an overview of the Accountability Conceptual Framework underpinning the case studies, and the methods and timeline for case study development.

Accountability conceptual framework

A literature review was conducted on how accountability platforms, mechanisms, actions, or activities carried out by stakeholders (public, private, or partners) impact systems performance, health outcomes, and/or health relevant SDG outcomes in countries. Based on the literature review, the IAP has developed a draft Accountability Conceptual Framework that provides an overview of the core components of accountability: the foundations for accountability; participation; and mechanisms to perform accountability functions (see Figure 1). The three components of the conceptual framework can be used to guide the development of the case studies, including data collection and analysis.

Figure 1. Accountability conceptual framework
IAP accountability framework
The IAP framework on Integrated Accountability is based on human rights principles and extends the third component in Figure 1 above: aspects of monitoring and review, with a particular emphasis on actions and remedies in their various forms – administrative, political, legal and social – which are key to transforming the underlying situation and dismantling entrenched resistance to change.\(^1\) Figure 2 depicts an IAP working draft of an integrated system to Monitor, Review, Remedy and Act for an effective accountability adapted from the IAP’s Framework and building on the human rights framework and a decade of EWEC accountability framework development\(^2\). It will be further developed for the IAP 2020 report.

Figure 2: Integrated Accountability, IAP working draft

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\(^1\) Old challenges, new hope. Accountability for the Global Strategy for Women’s, Children’s and Adolescents’ Health, Independent Accountability Panel (IAP) for Every Woman, Every Child, Every Adolescents; 2016.


A review of global accountability mechanisms, commissioned by PMNCH, 2011

A review of national accountability mechanisms, commissioned by PMNCH, 2012

Who will be accountable? Human Rights and the Post-2015 Development Agenda, OHCHR, 2013

Global Strategy for Women’s, Children’s and Adolescents’ Health (2016-2030), 2015

Country data, universal accountability. Monitoring priorities for the global strategy for Women’s, children’s and adolescents’ health (2016-2030), 2016
The IAP monitors country progress and multistakeholder accountabilities towards achieving the EWEC Global Strategy objectives (Survive, Thrive, Transform),\(^3\) including and now extending more in depth to Universal Health Coverage,\(^4\) SDG3 and the other health related SDGs.

**Objective of the country case studies**

The objectives of the IAP country case studies are to:

1. Understand what accountability means to different stakeholders in the country, and why it matters for women’s, children’s and adolescents’ health throughout the life course
2. What supports/enables accountability on UHC, human rights and sustainable development goals in the country and what accountability barriers obstruct progress
3. Using an accountability lens, identify 3-5 actions that could be undertaken to drive the change that is needed

**Initial draft list of countries and IAP focal points (TBC, see considerations for selection below)**

- Papua New Guinea: accountability for maternal and newborn health. Dame Carol Kidu as IAP focal point, with Burnet Institute in Australia; UHC service coverage index 41, but insufficient data on financial protection, so not categorized in a UHC ‘quadrant’); HLPF reporting 2020
- Kenya on medical detention; Joy Phumaphi as IAP focal point with FIDA KENYA, UHC Quadrant 4; HLPF reporting 2020
- Georgia on accountability of public private partnerships to deliver UHC: Prof. Giorgi Pkhakadze as focal point, David Tvildiani Medical University; UHC Quadrant 2, co-facilitator of intergovernmental negotiations for UHC HLM Declaration, HLPF reporting 2020
- CARICOM country; Jovana Rios Cisnero as IAP focal point (e.g., post hurricane, SDG CSO platform, CARICOM Youth Ambassadors, TBC)

**Considerations for selecting IAP case study countries**

- IAP members’ in-depth experience and links to academic institutions to conduct independent analyses in countries, and ensure quality and validity based on the expertise and experience of the case study leads (see notes on research quality that follow)
- Representation of countries across quadrants of UHC service coverage and financial protection (including for women’s children’s and adolescents’ health). The assumption is that this would cover a range of different accountability issues (see notes and figure below from the UHC 2019 global monitoring report)\(^5\)
- Across the case studies, countries from different geopolitical regions and income levels
- Includes humanitarian/ fragile settings (country/ within country)
- Potential to link to national health and SDG reviews, e.g. voluntary national reporting in 2020

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Case study questions
The questions to develop the country case studies area based on the IAP’s accountability framework. These are semi-structured questions and can be adapted to context-specific needs.

Country context: Describe the geographical, political, economic, sociocultural, environmental, epidemiological and demographic context

Foundations:
1. What institutions and infrastructure are in place to support accountability for women’s, children’s and adolescents’ health (e.g. political and legislative; governance and systems; security and protection; information and media)? How are these foundations applied (or not) to ensure people’s participation and mechanisms (for monitor, review and act) are both mandated and legally actionable?
2. Is there a perceived culture of accountability for women’s, children’s and adolescents’ health (transparency, answerability, controllability, decisions based on evidence, rights and rule of law, with universality, equity, equality and commitment to shared goals)?

Participation:
3. Among different country stakeholders, what is the understanding of what accountability is and why it matters?
4. To what extent are there provisions for people to:
   a. have access to relevant information and resources for their health and rights
   b. have their voices heard to inform priorities and decision-making for their health and development
5. What are the barriers to people knowing and claiming their rights and holding duty bearers accountable, e.g. lack of awareness of rights, health information etc.; power differentials such as between clients and health providers; etc?

Mechanisms and processes:
Monitor (related to resources, results and rights)
6. What mechanisms are used to monitor progress on universal health coverage, women’s, children’s and adolescents’ health, human rights and sustainable development?
7. What are the strengths and weaknesses of these monitoring mechanisms?
8. What do the data show as areas where there is progress or lack/reversal of progress in accountability along the continuum of care and service delivery and along the life course, who is left behind, where and why.

Review (related to resources, results and rights)
9. What mechanisms exist to review monitoring data and people’s lived experiences, and is there independent review?
10. What are strengths and weaknesses of these different review mechanisms?
11. What recommendations did the review processes generate?

Remedy/Reform and Act (related to resources, results and rights)
12. Are there provisions to link the review recommendations to required remedies and actions to address the gaps and reach those left behind?
13. Are there examples where remedies and actions effectively addressed the problems identified?
14. Considering examples of positive accountability impact, what were key contributing factors?
**Methods and timeline**

Based on the accountability conceptual framework and case study questions, the IAP focal point for each country case study would identify, and work closely with, an academic institution to lead the case study development, with partners and additional consultancy support as needed. These steps are based on methods used to develop previous country case study series on women’s, children’s and adolescents’ health in context of the MDGs and SDGs.⁶

<table>
<thead>
<tr>
<th>Steps to develop the country case study</th>
<th>Lead institution, IAP focal point, consultants and partners</th>
<th>Estimated timeframe, for a draft case study by 30 April 2020*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Country case study coordination and communication</strong></td>
<td>Lead academic institution:</td>
<td>15 days</td>
</tr>
<tr>
<td>IAP focal point:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead academic institution:</td>
<td></td>
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<tr>
<td><strong>Step 1. Introduction, socialization and buy-in by the government and other stakeholders as appropriate</strong></td>
<td>Lead academic institution, in coordination with IAP focal point and IAP Secretariat</td>
<td>5 days</td>
</tr>
<tr>
<td>Ensure the government and key stakeholders are aware of the case study and explore how it can add value to strengthening accountability by linking it to country review process, e.g., for national or global reviews (e.g., VNR at HLPF) etc.</td>
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<td><strong>Step 2. Data collection, evidence gathering and document review and key stakeholder interviews</strong></td>
<td>Lead academic institution, supported by consultant(s) as needed and coordinating with IAP focal point</td>
<td>30 days</td>
</tr>
<tr>
<td>Review of background documents, videos and context, including field visits as required to understand the accountability context and identify key stakeholders. Identify key videos and background materials that amplify the voices of women, children and adolescents, and others left furthest behind, ‘the human face’ of why accountability matters. Based on the review of the background documents and context, undertake key stakeholder interviews to address information gaps or get more in-depth information.</td>
<td>Key partners and stakeholders across sectors and levels (TBC)</td>
<td></td>
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⁶ The steps were recently used and tested in 12 high, middle- and low-income countries for a BMJ series on multistakeholder collaboration, 2018: [https://www.who.int/pmnch/knowledge/case-studies/en/index2.html](https://www.who.int/pmnch/knowledge/case-studies/en/index2.html)

They were also previously used and tested in 10 low- and middle-income countries on success factors to achieving MDGs 4 and 5, 2014: [https://www.who.int/pmnch/knowledge/publications/successfactors/en/index1.html](https://www.who.int/pmnch/knowledge/publications/successfactors/en/index1.html)

The approach is based on a guide for convenors and facilitators of multistakeholder dialogues on women’s and children’s health developed by PMNCH, WHO, CMPartners and Global Health Insights. It draws on the Mutual Gains Approach (MGA) and the work of Roger Fisher, Larry Susskind, and others at Harvard Law School’s Program on Negotiation: [https://www.who.int/pmnch/knowledge/publications/msd_guide.pdf?ua=1](https://www.who.int/pmnch/knowledge/publications/msd_guide.pdf?ua=1)
<table>
<thead>
<tr>
<th><strong>Steps to develop the country case study</strong></th>
<th><strong>Lead institution, IAP focal point, consultants and partners</strong></th>
<th><strong>Estimated timeframe, for a draft case study by 30 April 2020</strong>*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 3. Development of the working draft for the multistakeholder dialogue meeting</strong>&lt;br&gt;Based on Step 2</td>
<td>Lead national institution, supported by consultant(s) as needed and coordinating with IAP focal point</td>
<td>5 days</td>
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<tr>
<td><strong>Step 4. Multistakeholder dialogue meeting</strong>&lt;br&gt;Plan and conduct a small multistakeholder dialogue to gain different perspectives on the findings of Step 1 and 2 and build shared understanding of the accountability issues and agreement on the case study findings</td>
<td>Lead academic institution, supported by consultant(s) as needed and coordinating with IAP focal point&lt;br&gt;Around 10 to 15 key stakeholders for country accountability: civil society, parliamentarians, media, policy-makers, service providers, private sector and academia, to participate in the dialogue (TBC)</td>
<td>10 days</td>
</tr>
<tr>
<td><strong>Step 5. Case study write up of around five pages (2000 words), plus references, videos and annexes for more information if needed</strong></td>
<td>Lead academic institution, supported by consultant(s) as needed and coordinating with IAP focal point</td>
<td>15 to 20 days</td>
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</table>

* Time may vary depending on existing capacities to undertake the development of the case studies, available information on the accountability questions, and the level of effort/logistics to organize the key stakeholder interviews and multistakeholder dialogue.
Notes on countries in different UHC ‘quadrants’

- **Quadrant 1:** The high-performing countries have high service coverage and low financial hardship for individuals. Most countries in this group are high- and upper-middle-income countries.
- **Quadrant 2:** The quadrant 2 group of countries has high service coverage and high financial hardship for individuals. This group consists of high-, upper-middle and lower-middle income countries.
- **Quadrant 3:** This group comprises countries with low service coverage and high financial hardship, mostly countries with large service inequities characteristic of contexts with fragmented financing and concentrated service provision serving urban populations, often requiring high levels of out-of-pocket spending.
- **Quadrant 4:** This quadrant includes mostly low-income countries that have low service coverage and low financial hardship. As in the countries in the third group, financing arrangements are probably fragmented and service coverage highly inequitable, with very low use by people living in poverty.

Although detailed contextual and political economy analysis is required for each country, the WHO and World Bank analyses of service coverage and financial protection globally reveal four broad categories of countries, with distinct implications for policy and technical support, as follows.

**Quadrant 1.** For countries with high service coverage and low financial hardship (mainly high- and upper middle-income countries) the major challenge is to continue to make gains in efficiency, quality and equity.

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Quadrant 2. For countries with high service coverage but high levels of financial hardship (mainly lower-middle-income countries) ensuring inclusive, universal mechanisms to protect against high out-of-pocket spending will be the key challenge.

Quadrant 3. Countries with low service coverage and high financial hardship (mainly lower-income countries) need comprehensive reform of both their service delivery and health financing arrangements, giving priority to addressing inequities.

Quadrant 4. Countries with low service coverage and low financial hardship (mainly highly-vulnerable and conflict-affected countries) need to build the foundations of their health systems, including human resources, supply chains and infrastructure.

**Notes on research quality criteria**
Criteria for ensuring rigour in quantitative and qualitative research

<table>
<thead>
<tr>
<th>Quality criteria</th>
<th>Quantitative</th>
<th>Qualitative</th>
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</thead>
<tbody>
<tr>
<td>Generalizability</td>
<td>- Statistical generalizability</td>
<td>- Analytical/theoretical generalizability: transferability within and across contexts</td>
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<tr>
<td>Validity</td>
<td>- Accuracy of measurement</td>
<td>- Appropriateness of methods and expertise and experience of researchers</td>
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<tr>
<td></td>
<td>- Validity: face, construct, criterion</td>
<td>- Validity: democratic (all perspectives accurately represented); dialogic (review and deliberation of findings); process (cogent and dependable); outcome (resolution of research question)</td>
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<tr>
<td>Reliability</td>
<td>- Precision</td>
<td>- Auditability and transparent documentation of methods</td>
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<td></td>
<td>- Replicability: inter-observer, test-retest, triangulation</td>
<td>- Consistency in applying methods</td>
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<td></td>
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<td>- Achieving theoretical saturation</td>
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<tr>
<td>Credibility</td>
<td>- Triangulation of data sources</td>
<td>- Triangulation of data sources</td>
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<td></td>
<td>- Counterfactual analysis and causal inference</td>
<td>- Expertise and experience of researchers</td>
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<td>- Diverse perspectives to test and refine the findings, including consideration of alternative interpretations</td>
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<tr>
<td>Context for application of quality criteria</td>
<td>- Embedded in a broader understanding of and expertise in quantitative research design, data analysis, application, and limitations</td>
<td>- Embedded in a broader understanding of and expertise in qualitative research design, data analysis, application, and limitations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- In-depth understanding of context of analysis from different stakeholder perspectives and 'thick description'</td>
</tr>
</tbody>
</table>

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8 From the *BMJ* series on Making multistakeholder collaboration work, 2018: [https://www.who.int/pmnch/knowledge/case-studies/en/index2.html](https://www.who.int/pmnch/knowledge/case-studies/en/index2.html)
Annex 7: Recommendations derived from ENB DATA

Key Themes: Resourcing; Governance; Engagement; Evaluation.

Invest in training, staffing and professional development of staff focusing on MCH and adolescent health [resourcing].

Political leadership and championing of MCH and adolescent health at all levels [governance]

Involving peers and adolescents to have a voice at the community level [engagement]

Training and support on M&E and Accountability for PHA, PHO, Health Managers [evaluation].

Clear articulation of lines of responsibility and accountability and practical means of measurement and assessment. [evaluation].

Clearly defined “Reporting KPIs” for collecting service delivery and management data, with regulate updates and recalibration. [evaluation].

Effective health information management systems that can collect and collate data [evaluation].

Accountability for the dissemination and evaluation of the data and assessment of any agreed outcomes [evaluation].

“Monitoring that makes a difference”: defined accountability with individuals/departments responsible and engaged with the data, acting upon it, instigating and promoting evidence-informed and then assessing implementation and impact [evaluation].

ENB/PNG-specific recommendations/actions

Invest in Community Health/Aid Posts [resourcing].

Adolescent specific clinics and dedicated staff [resourcing].

Reinforce and support existing structures where accountability lies [governance].

Regular oversight by provincial women’s council of the PHAs work on MCAH [governance/engagement].

People see real practical evidence of accountability from their leaders. Real changes happen that the community can see [engagement].

Provincial incentives and supervision to promote weekly reflection and learning activities, as well as client satisfaction surveys, at every health facility [engagement].

Regular family health service reflection on progress, based on existing administrative data [engagement].

Advocacy for district level initiatives on violence against women, leveraging the work done at provincial capital level [engagement].