

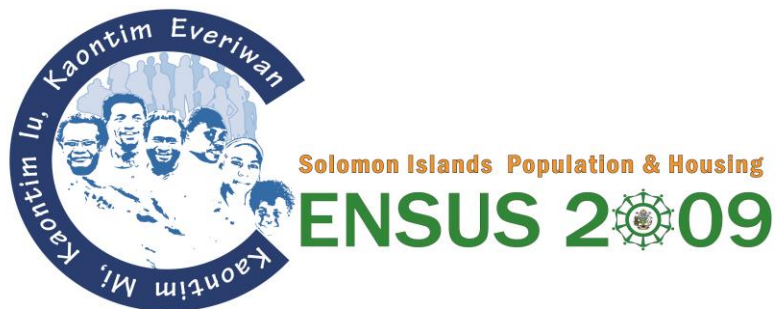


Solomon Islands Government

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PROVINCIAL PROFILE OF THE 2009 POPULATION & HOUSING CENSUS

# TEMOTU



## PREFACE

This report provides supplementary information to the *2009 Basic Tables and Census Description (Volume 1)*, and to the *National Report (Volume 2)* of the 2009 Population and Housing Census of Solomon Islands. This analysis undertaken at the sub-national (provincial) level follows similar structure and reporting undertaken for the national level as presented in the *Volume 2* report. The set of tables presented here adheres to United Nations Principles and Recommendations for Population and Housing Censuses. Hence, it ensures a standard of comparability with the previous censuses as well as comparability of results across provinces.

The report presents data and socio-economic indicators, and analysis of the social, demographic and housing characteristics that are specific to the Temotu Province. The data is referenced to the midnight of 22nd of November 2009, the census date. It is anticipated that information contained in this report will facilitate decision making, planning and policy formulation in the Solomon Islands and especially in the Temotu Province. The information is highly relevant in the monitoring and evaluation of the country's National Development Strategy (NDS) 2011-2020 and other sector policies, and in assessing the current and future socio-economic conditions of the province.

The report covers the main results of the 2009 Census enumeration, and discusses topics such as population size, growth, density, and structure; urban and rural growth; demographic dynamics such as levels and trend of fertility and mortality; social characteristics such as marital status, religion, ethnicity, and disability; educational characteristics such as school enrollment rates, educational levels, literacy and language ability; labor market activities and economic indicators; household characteristics such as number and size of households, and involvement in agriculture and fisheries; housing situations in terms of water, sanitation, energy, and the availability of various amenities and capital goods. Lastly the report presents population projections illustrating future population size and structure of the population of Temotu Province.

The contributions of many people and organizations in Solomon Islands towards the successful accomplishment of the 2009 Population and Housing Census ought to be acknowledged. These includes the Government of Solomon Islands through the former and current Ministers of Finance and Treasury (MOFT), and the Permanent Secretary for MOFT, Mr. Shadrach Fanega, under whose ministerial authority the 2009 Population and Housing Census for the Solomon Islands was undertaken; Mr. Martin Butterfield for his initial contribution on the strategic census planning and management; the Chairperson of the Steering Committee, and the former Acting Government Statistician (late) Mr. Nick Gagahe for his leadership and coordination of the Committee; the Chairperson of the Census Population Management Committee (CPMC), the Under Secretary for Finance and Treasury Ms. Elizabeth Kausimae for her leadership and coordination of the Committee; and to all the members of the Committee, for their valuable contributions in ensuring the final conclusion of the census operations.

Sincere thanks go to our donor partners namely the Australian Government through the Australian Agency for International Development (AusAID); the European Union (EU); the United Nations through the United Nations Fund for Population Activities (UNFPA) and United Nations Development Program (UNDP), Republic of China (ROC, Taiwan) for their financial assistance in the various operational activities of the census project; to the Census Technical

Advisor, Mr. Allan Harbrow for his advice in planning and management of the 2009 Census and to his wife, Mrs. Maureen Harbrow for her assistance in the census operations; to the former Census Commissioner, Mr. Willington Piduru and his successor Census Commissioner, Mr. Douglas Kimi for their respective coordinated effort to the success of the 2009 Census; to the Secretariat of the Pacific Community (SPC), firstly to the Demography and Statistics Program Manager, Dr. Gerald Haberkorn for SPC's overall technical support to the census project; SPC Demographer, Mr. Arthur Jorari for his worthwhile assistance in reviewing the census training manual and training, and his advising and contribution in the overall census operations; to GIS Specialist, Mr. Phil Bright for setting-up the scanning program and management of the system; to GIS Specialist, Mr. Scott Pontifex for setting-up the mapping system and training the local cartographer; to the Data Processing Specialist, Ms Leilua Taulealo for her technical support in data management and tabulations; to Mr. Pierre Wong, for his technical support and contribution in data imputations and validation. Sincere thanks also go to Dr Michael Levin for his tireless efforts in ensuring the successful completion of the data editing and validation of the data; to the former SPC/UNFPA Demographer/Consultant, Mr. Andreas Demmke, for the initial data analysis and preparation of this report; and to Dr. Ricardo Neupert, UNFPA Demographer/Consultant for updating the information and indicators in the report, and making selected improvements and finalizing the report.

The NSO further conveys its appreciation to all the NSO Census Team and the rest of the staff of the National Statistics Office (NSO) for their valuable contributions offered to the 2009 Census. On the report, the NSO is grateful to the assistance provided by Irene Kalauma, Loyce Pabulu, Anterlyn Tuzakana and Anna Pitaboe for their tireless efforts in incorporating changes to the reports and assisting to finalize the report. The NSO also acknowledges the internal technical support provided by the Solomon Islands Partnership Facility (Governance Program) through the Statistics Adviser, Dr. Willie Lahari, for technical guidance and advice in addressing census related technical issues and challenges since late 2010.

The NSO is also grateful to the Solomon Islands Broadcasting Cooperation (SIBC) and to Solomon Islands One News Television for the publicity programs; the Secretary and staff of the Ministry of Lands for their assistance in providing digitized maps of the Solomon Islands and provinces.

Finally to all the people of the Temotu Province for their generous responses to the questionnaires and the Temotu Provincial Government for administrative and logistical support provided. Your contribution is of vital importance in making the 2009 Population and Housing Census for the Solomon Islands, and for Temotu Province a success.



Douglas Kimi  
**Government Statistician**

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## SUMMARY OF MAIN INDICATORS

Indicator	Total	Males	Females
<b>Total population</b>	<b>21,362</b>	10,466	10,896
Average annual population increase, 1999-2009 (in numbers)	<b>245</b>	132	113
Average annual population growth rate, 1999-2009 (%)	<b>1.2</b>	1.3	1.1
Population density (number of people/km <sup>2</sup> )	<b>25</b>		
<b>Urbanization</b>			
Urban population	<b>1,982</b>	985	997
Per cent urban (%)	<b>9.3</b>		
Average annual urban growth rate, 1999-2009 (%)	<b>17.0</b>		
<b>Households</b>			
Number of private households - headed by males/females	<b>4,303</b>	3,394	909
Number of people in private households	<b>21,104</b>	10,310	10,794
Average household size (number of people per household)	<b>4.9</b>		
Number of institutions - males/females in institutions	<b>28</b>	156	102
<b>Household characteristics</b>			
wages/salaries is main household income (%)	<b>14</b>		
receiving remittances (%)	<b>14</b>		
with insecticide treated bednets (%)	<b>80</b>		
with improved drinking water sources (%)	<b>75</b>		
with improved sanitation facilities (%)	<b>9</b>		
connected to electricity grid (%)	<b>3</b>		
with radio (%)	<b>18</b>		
with mobile phone (%)	<b>14</b>		
<b>Population structure</b>			
Number of children (<15 years)	<b>8,585</b>	4,496	4,089
Youth population (15-24 years)	<b>3,573</b>	1,704	1,869
Population aged 25-59 years	<b>7,555</b>	3,421	4,134
Older population (60 years and older)	<b>1,649</b>	845	804
Median age	<b>20.2</b>	18.7	21.9
Dependency ratio (15-59)	<b>92</b>		
Sex ratio	<b>96</b>		

## SUMMARY OF MAIN INDICATORS (continued)

Indicator	Total	Male	Female
<b>Marriage</b>			
Mean age at first marriage (SMAM)	25.8	27.7	24.1
Proportion married at age 15-19 years (%)		1.4	7.7
<b>Labour force</b> (population 12 years and older)			
Employee (Gov. and Priv.)	978	705	273
Employer	10	8	2
Self employed	152	127	25
Voluntary work	297	179	118
Unpaid family work	4,005	1,209	2,769
Producing goods for sale	691	591	370
Producing goods for own consumption	6,373	2,613	3,760
Unemployed	62	40	22
Economically active population (labor force)	9,687	4,360	5,297
Inactive	4,573	2,350	2,223
Labor force participation rate	67.9	65.1	70.4
Unemployment rate	0.6	0.9	0.4
<b>Education</b>			
School enrolment rates of 6-12 year-olds (%)	87.8	87.5	88.2
School enrolment rates of 6-15 year-olds (%)	88.0	88.1	88.0
School enrolment rates of 15-19 year-olds (%)	69.3	74.8	64.1
Proportion of population aged 12 and older with (%)			
no school completed	23.8	14.1	32.5
primary education	56.2	61.8	51.2
secondary education	14.3	17.2	11.8
tertiary education	2.7	4.1	1.5
vocational qualification	0.6	1.0	0.3
Literacy rate, 15+ (%)	71.3	82.8	61.1
Literacy rate, 15-24 (%)	89.8	91.4	88.4
Language ability, 5+ (%)			
English	66.2	73.5	59.3
Pidgin	53.8	60.2	47.8
Local language	36.0	41.2	31.1
Other language	12.7	14.4	11.2
<b>Number of people with severe disability</b>			
Blindness	71	36	35
Deafness	79	39	40
Lameness	160	76	84
Senile and/or amnsic	151	71	80

## SUMMARY OF MAIN INDICATORS (continued)

Indicators	Total	Male	Female
<b>Fertility</b>			
Total Fertility Rate (TFR)	<b>4.2</b>		
Teenage Fertility Rate (ASFR, 15-19)	<b>45</b>		
Children ever born, CEB (45-49)	<b>4.7</b>		
General Fertility Rate (GFR)	<b>130</b>		
Child-Woman Ratio (CWR)	<b>551</b>		
Mean age at childbearing (in years)	<b>29.3</b>		
Annual number of births, 2009	<b>685</b>	360	325
Crude Birth Rate	<b>32.1</b>		
<b>Mortality</b>			
Proportion of children ever born still alive (%)	<b>94.9</b>	94.8	95.1
Proportion of population 60 years and older widowed (%)	<b>27.3</b>	15.3	42.2
Proportion of population orphaned (%)			
Fathers dead	<b>26.7</b>	26.7	26.7
Mothers dead	<b>18.6</b>	18.5	18.6
Infant mortality rate (IMR) (per 1,000)	<b>22</b>	18	27
Child Mortality (per 1,000)	<b>6</b>	3	9
Under-five mortality (per 1,000)	<b>28</b>	21	36
Adult mortality (45q15)	<b>0.184</b>	0.232	0.134
Life expectancy at age 20 (e20), in years	<b>52.8</b>	50.2	55.5
Life expectancy at birth	<b>69.6</b>	66.2	73.1
Estimated annual number of deaths, 2009	<b>164</b>	97	67
Crude death rate	<b>7.5</b>		

# 1. INTRODUCTION

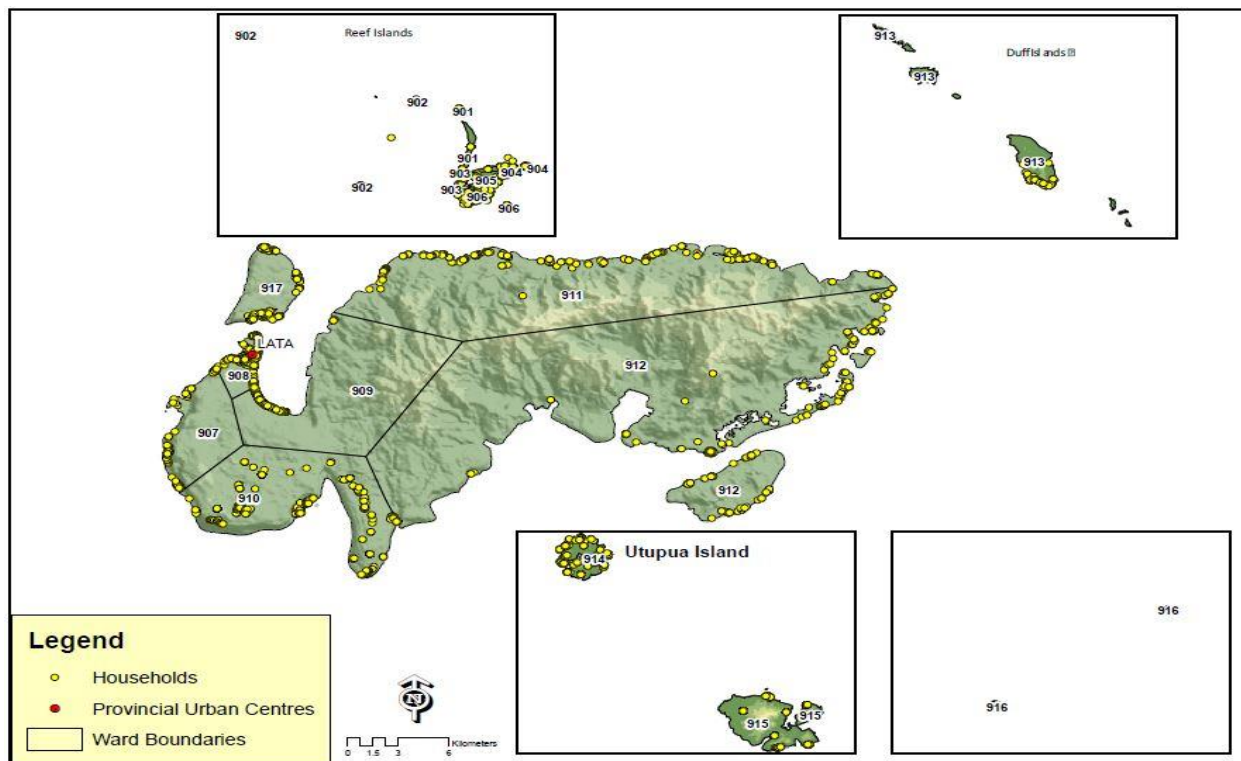
This report is based on data collected during the population census enumeration: 22 November 2009 was the census day. The main purposes of this report are to:

- provide a general overview of the 2009 census enumerations;
- generate interest, curiosity, and a desire for more detailed information which can be used for specific analysis and the generation of topical census monographs;
- advocate for the use of census data as a key source of statistical information for evidence based policy making; and
- enhance the decision-making process of policy-makers.

This volume concentrates on making the enormous wealth of information incorporated in the Basic Tables accessible to user. This is done by providing summaries, figures and commonly used indicators (see Summary of main Indicators), and by making population projections and analysing trends, especially trends with policy implications.

For further information please contact the Solomon Islands National Statistics Office.

### Map 1: Temotu Province



## 2. POPULATION PROFILE AND CHANGE

### 2.1 Population size and trend

In 2009, the total enumerated population of Temotu stood at 21,362. This is an increase of 2,450 persons compared to the 1999 population census (Table 1).

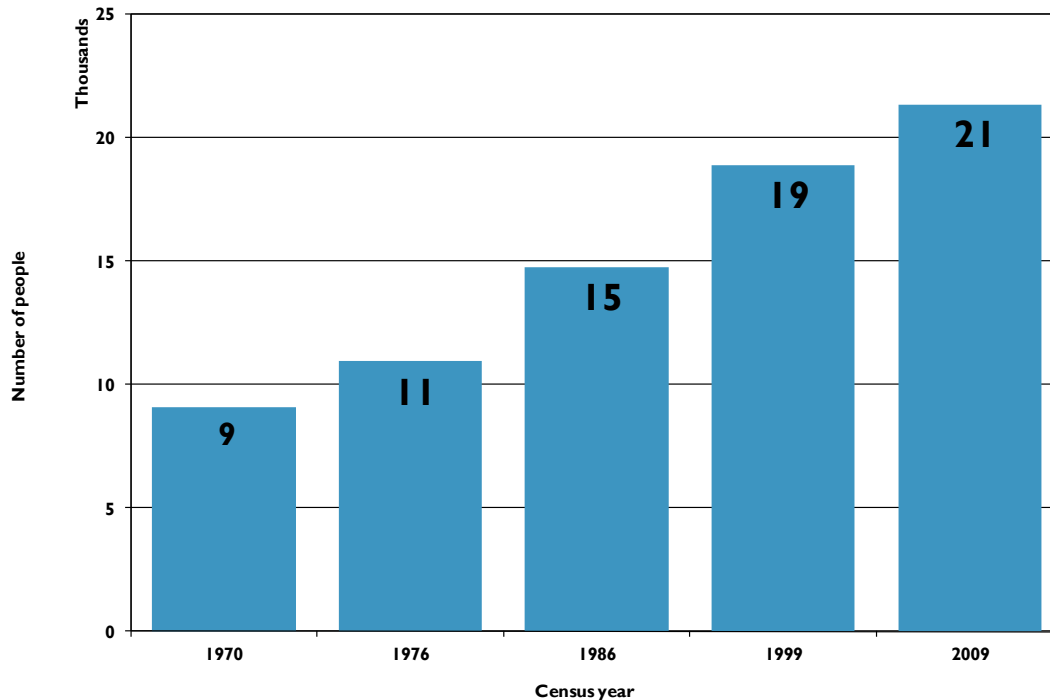
Figure 1 shows the population trend from 1970-2009. It can be seen that the population has continuously increased and it is now more than double the size it was in 1970.

Between the inter-censal periods 1986-1999 the population growth rate was 1.9 percent. This declined to 1.2 percent for the period 1999-2009 (Table 1 and Fig.2), and was much lower than the national average of 2.3% (Fig.4). However, as is shown in the main national census report, the census enumeration suffered approximately from an 8.3% undercount. Assuming that Temotu suffered from a similar undercount, the intercensal population growth rate of the period 1999-2009 was probably about 1.8%. Nevertheless, all statistical indicators presented in this report are based on the interviewed population of 21,362 people.

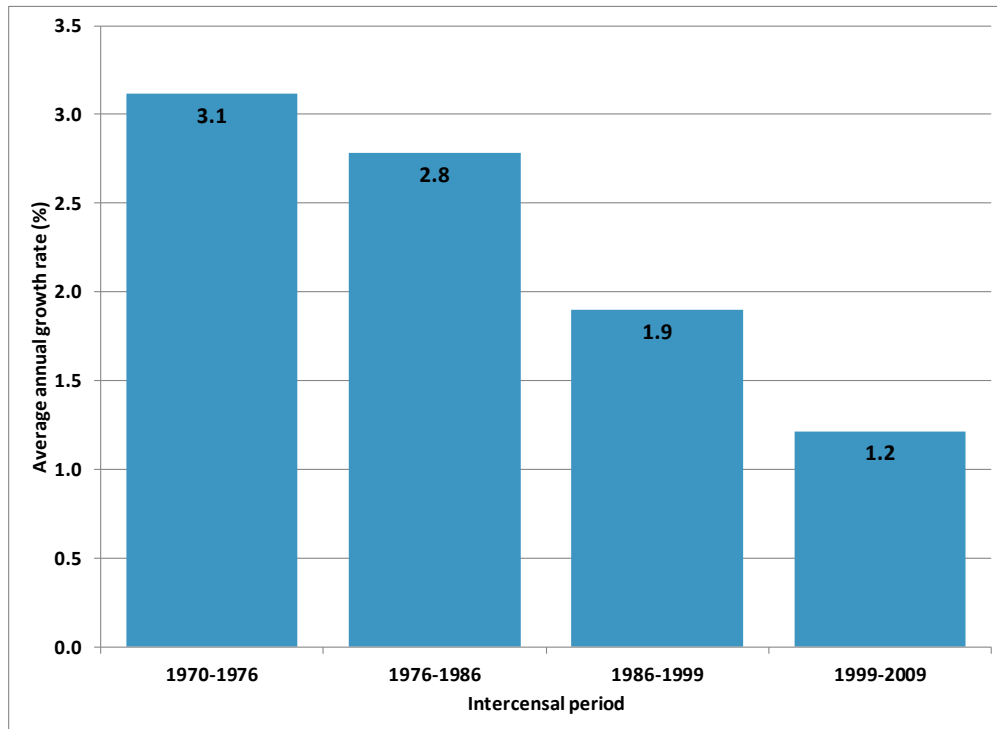
While the average population increase during the period 1986-1999 was 318 people per year, it was 245 people annually during the period 1999-2009 (Fig.3).

Temotu comprised of 4% of the total Solomon Islands population (Fig.5).

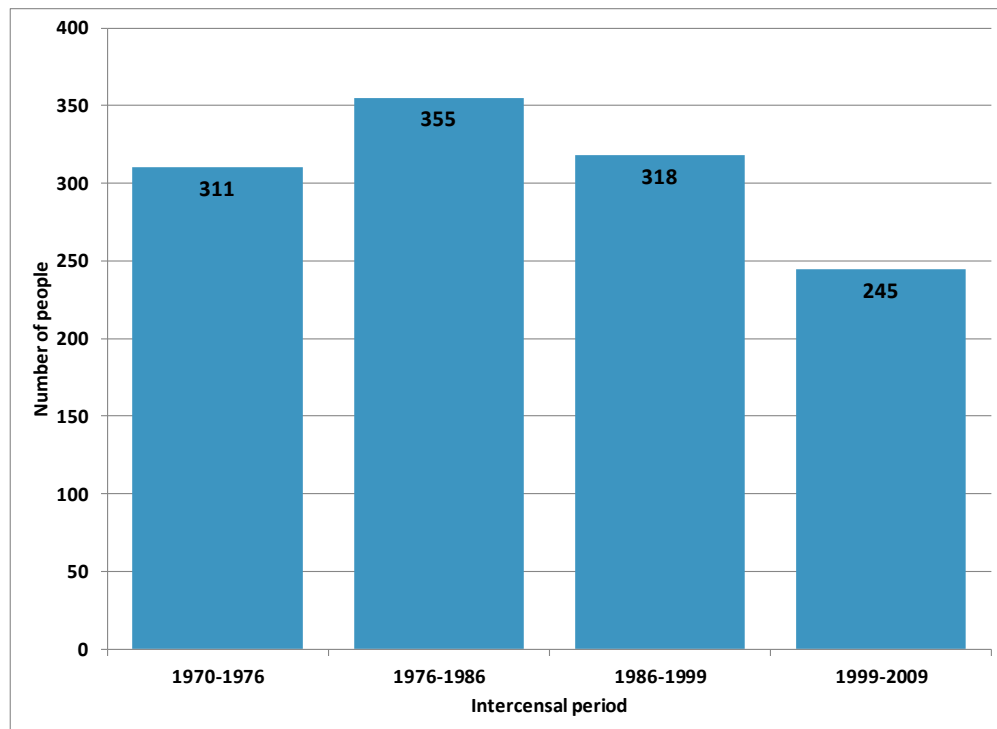
**Figure 1: Total population size, Temotu: 1970–2009**



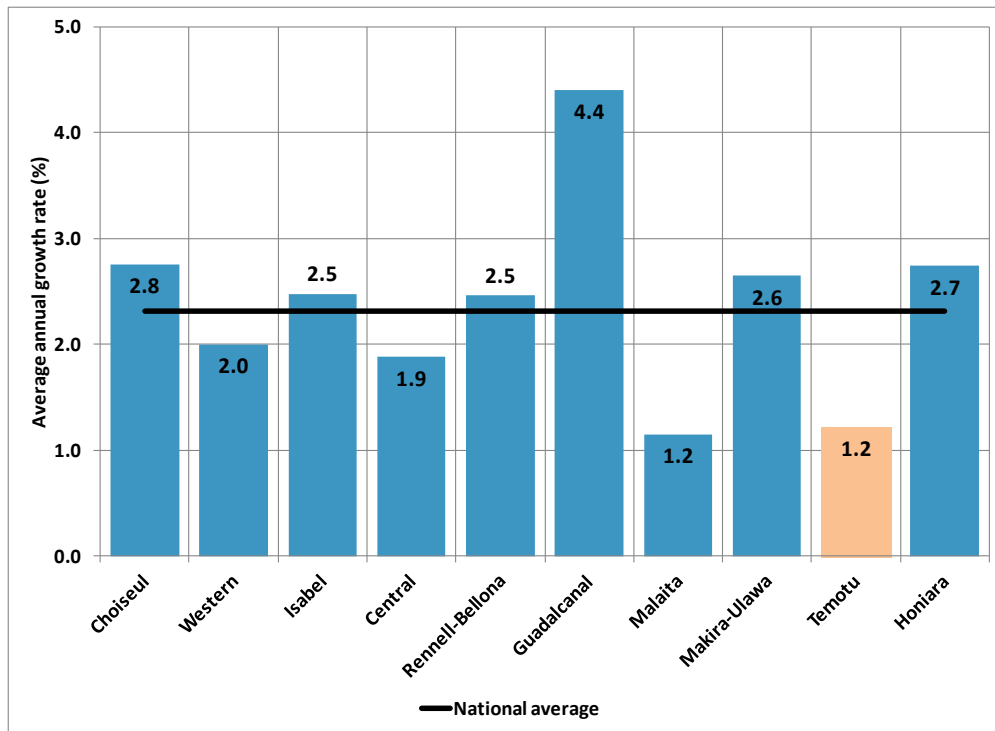
**Figure 2: Average annual population growth rate (%), Temotu: 1970–2009**



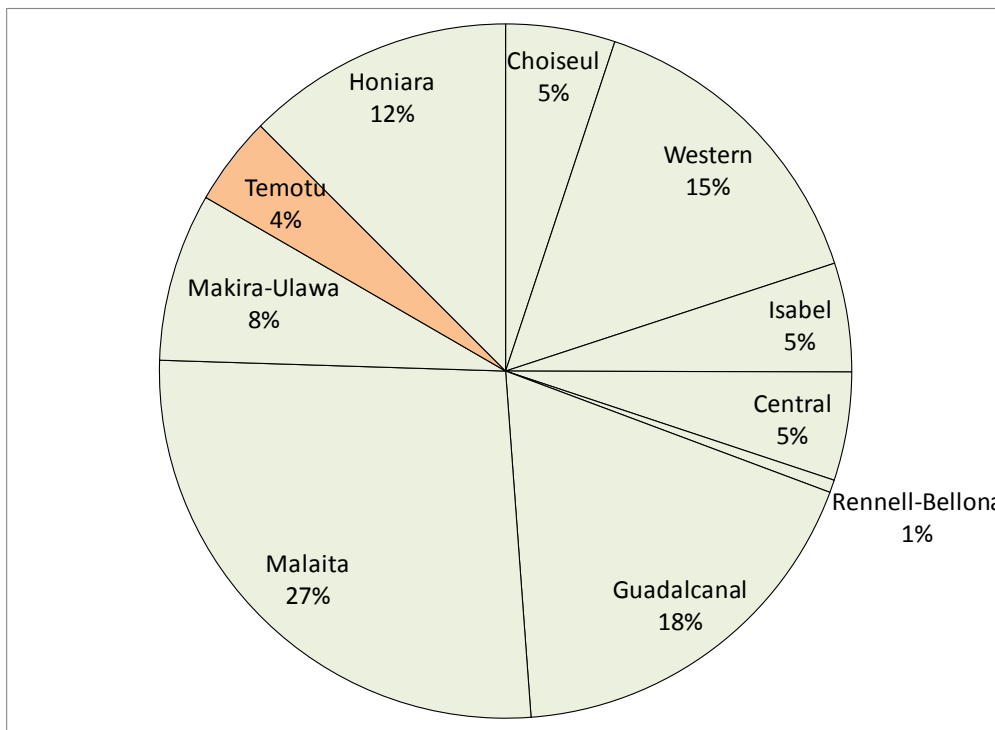
**Figure 3: Average annual population increase, Temotu: 1970–2009**



**Figure 4: Average annual population growth rate (%) by province, Solomon Islands: 1999-2009**



**Figure 5: Population distribution by province (%), Solomon Islands: 2009**



## 2.2 Population by wards and urban-rural distribution

The distribution of the population by ward shows very different developments (Table 1). During the intercensal period 1999-2009 there were wards that grew significantly faster - at least 50% faster - than the provincial average population growth rate of 1.2% (highlighted in green) such as Nipua/Nopoli, Luva Station, Utupua, Vanikoro and Neo. On the other hand there were also wards that had a significantly lower growth rate (highlighted in pink) or even negative growth rates (highlighted in blue) such as Fenualoa, Lipe/Temua, Manuopo, Nevenema and Tikopia which decreased in population size between 1999 and 2009. It can be suggested that the wards with very low or negative growth rates lost population through migration.

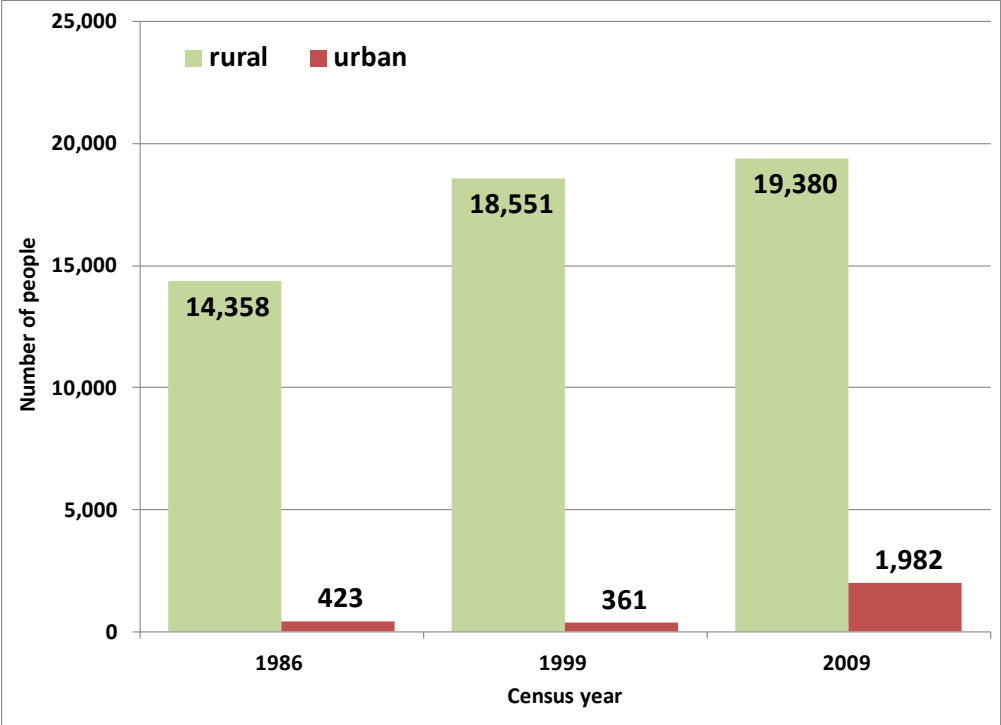
**Table 1: Population size by wards, Temotu: 1999 and 2009**

Province/Ward	Population size		Population change (number of people)	Average annual growth rate (1999-2009)
	1999	2009		
<b>Temotu province</b>	<b>18,912</b>	<b>21,362</b>	<b>2,450</b>	<b>1.2</b>
Fenualoa	1,333	1,305	-28	-0.2
Polynesian Outer Islands	297	353	56	1.7
Nipua/Nopoli	589	880	291	4.0
Lipe/Temua	1,077	793	-284	-3.1
Manuopo	1,067	1,030	-37	-0.4
Nenumpo	1,121	1,166	45	0.4
Nevenema	998	947	-51	-0.5
<b><i>Luva Station</i></b>	1,665	2,335	670	3.4
Graciosa Bay	1,089	1,264	175	1.5
Nea/Noole	1,479	1,770	291	1.8
North East Santa Cruz	1,665	1,843	178	1.0
Nanggu/Lord Howe	1,742	1,861	119	0.7
Duff Islands	439	511	72	1.5
Utupua	848	1,168	320	3.2
Vanikoro	884	1,293	409	3.8
Tikopia	1,346	1,285	-61	-0.5
Neo	1,273	1,558	285	2.0

Note: wards highlighted in pink show at least 50% lower growth rates than the provincial average  
wards highlighted in green show at least 50% higher growth rates than the provincial average  
wards highlighted in blue show negative growth rates - a population decrease between 1999 and 2009  
wards in ***bold/italic*** are urban (or at least partly urban)

Temotu’s urban population includes the township of Lata/Luova Station and its population increased from 361 people in 1999 to 1,982 in 2009 (Fig.6). With an average annual growth rate of 17% the urban population grew much faster than the provincial average growth. However, only just over 9% of the total Temotu population is classified as urban.

**Figure 6: Total Population size by urban and rural residence, Temotu: 1986–2009**



**Population density**

With a land area of 868 km<sup>2</sup>, the population density was 25 people per sq.km in 2009. This compares to an average population density of 17 people per sq.km for the Solomon Islands.

## 2.3 Population structure

A **population pyramid** shows the number of males and females in single years (Fig.7) or five-year age groups (Fig.8) starting with the youngest age group at the bottom, and increasing with age towards the top of the pyramid. The number of males is depicted to the left and the number of females to the right of the pyramid's centre.

The shaded area in Figure 8 shows the population count of the 1999 census, while the thickly outlined area shows the population count of the 2009 census.

Temotu's population pyramid has the distinct features of a classical pyramid: it has a wide base, meaning that a large percentage of people are in the younger age groups, with increasingly narrow bars towards the top of the pyramid, representing decreasing age groups at older ages. Furthermore, the pyramid has one distinct characteristic which is the narrow bars at roughly ages 20-30. It is evident that Temotu lost people of these age groups as they migrate to the capital Honiara or to other urban centres in search for employment, education and/or for other reasons.

In accordance with the overall population structure, as illustrated by the population pyramids, several indicators can be calculated such as the sex ratio, the median age and the age dependency ratio.

The enumerated 2009 population consisted of 10,466 males and 10,896 females. Females outnumbered males by 430 resulting in a **sex ratio** of 96, which means that there were only 96 males per 100 females (Fig.9). A sex ratio lower than 100 means there are more females than males and a sex ratio higher than 100 meaning more males than females.

Temotu's population has a relatively young age structure, with 40% of the population younger than 15 years of age; 52% are in the so called working age groups 15-59, and 8% were older than 60 years (App.1).

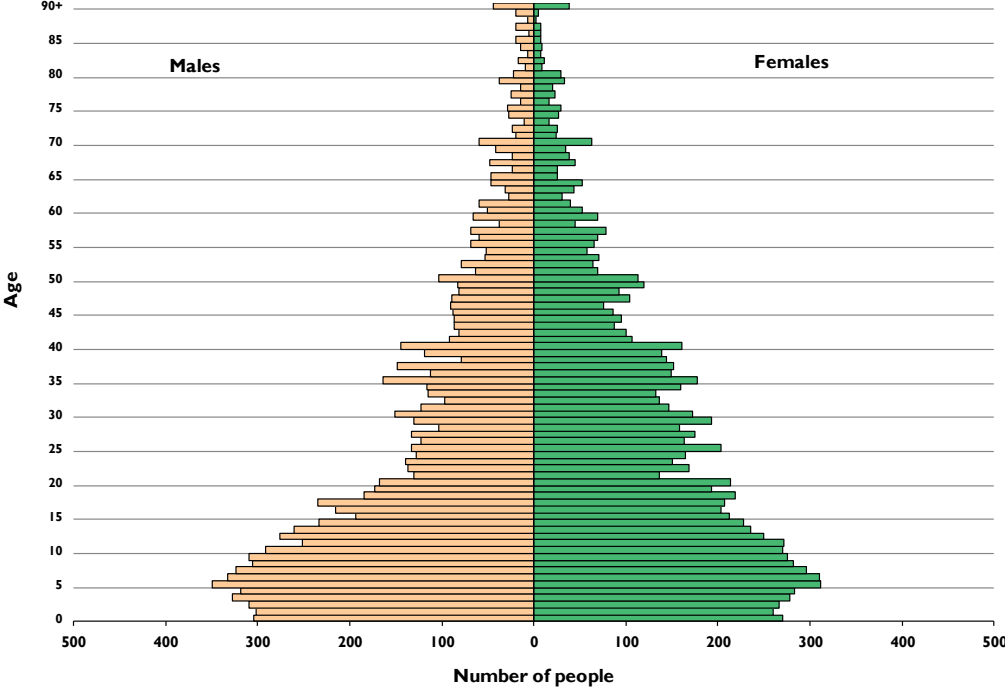
The age structure is also illustrated by the **median age** of 20.2 years (Fig.10), meaning that half of the population was younger and the other half older than 20.2 years. The median age in 1999 was only 18.8 years, indicating that the population structure was older in 2009 compared to 1999.

A common way to describe a population's age structure is via the **age dependency ratio**, which compares the dependent component of a country's population with its economically productive component. This is conventionally expressed as the ratio of young people (0–14 years) plus the old (60+ years), to the working age population (15–59 years) as shown in Table 5 and Figure 11.

In 2009, Temotu had a dependency ratio of 92, meaning that for every 100 people of working age, 92 people were in the age dependent category. The higher the dependency ratio, the higher

the number of people that needs to be cared for by the working age population. The dependency ratio has slightly decreased since the 1999 census when it was 93.

**Figure 7: Population pyramid by single years, Temotu: 2009**



**Figure 8: Population pyramid by 5-year age groups, Temotu: 1999 and 2009**

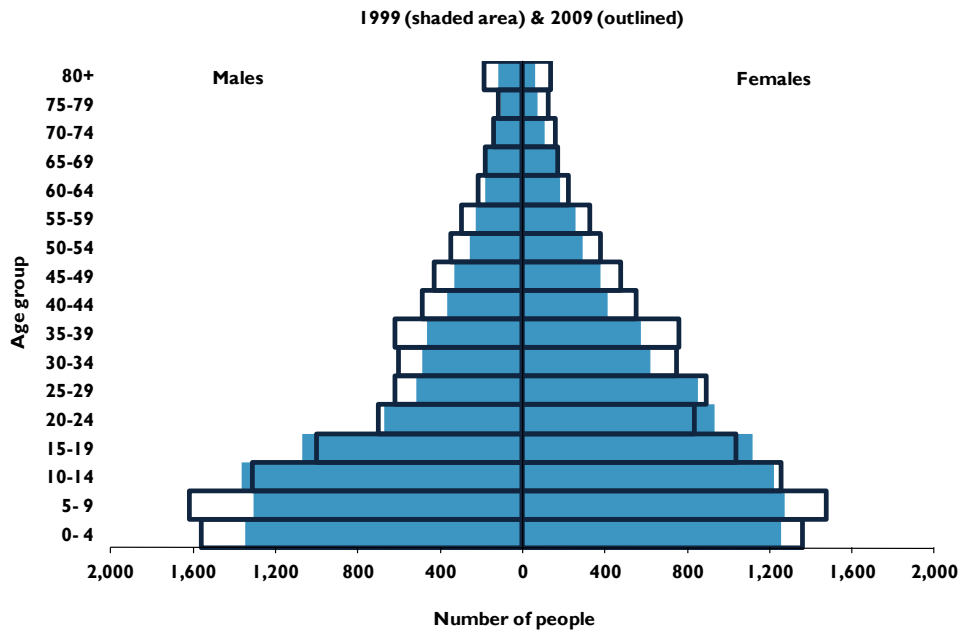


Figure 9: Sex ratios by province, Temotu: 2009

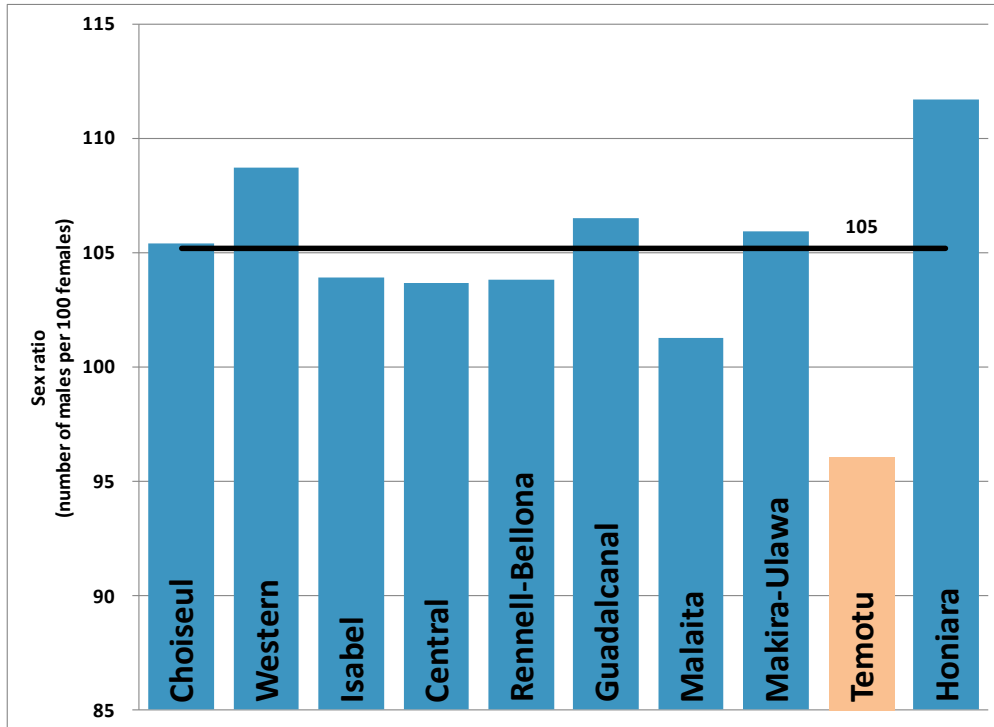


Figure 10: Population by median age and province, Temotu: 2009

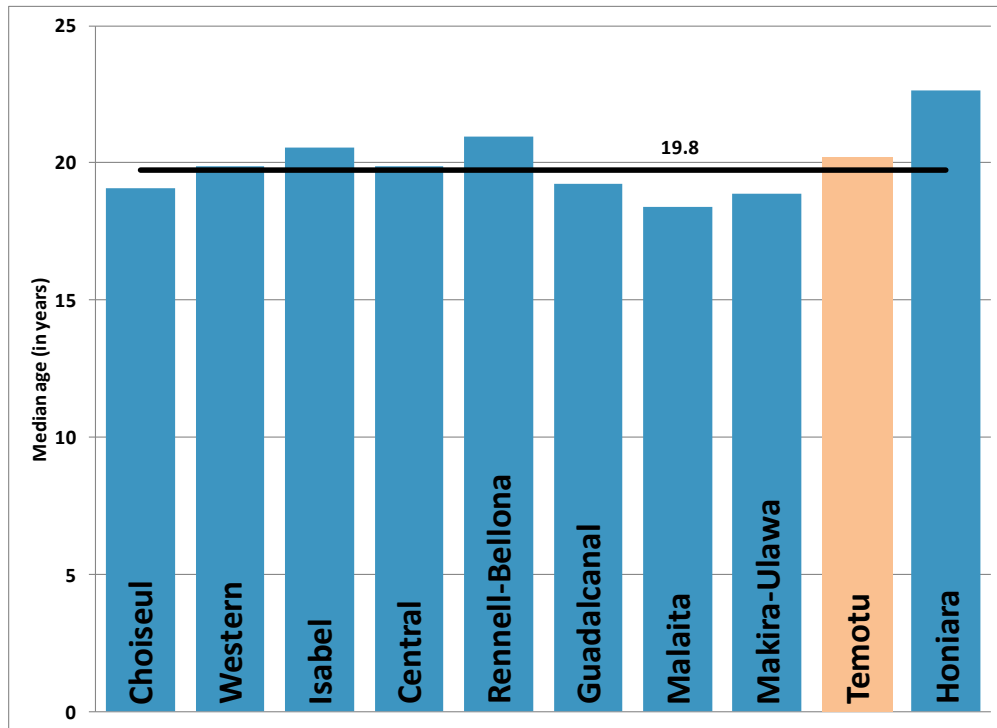
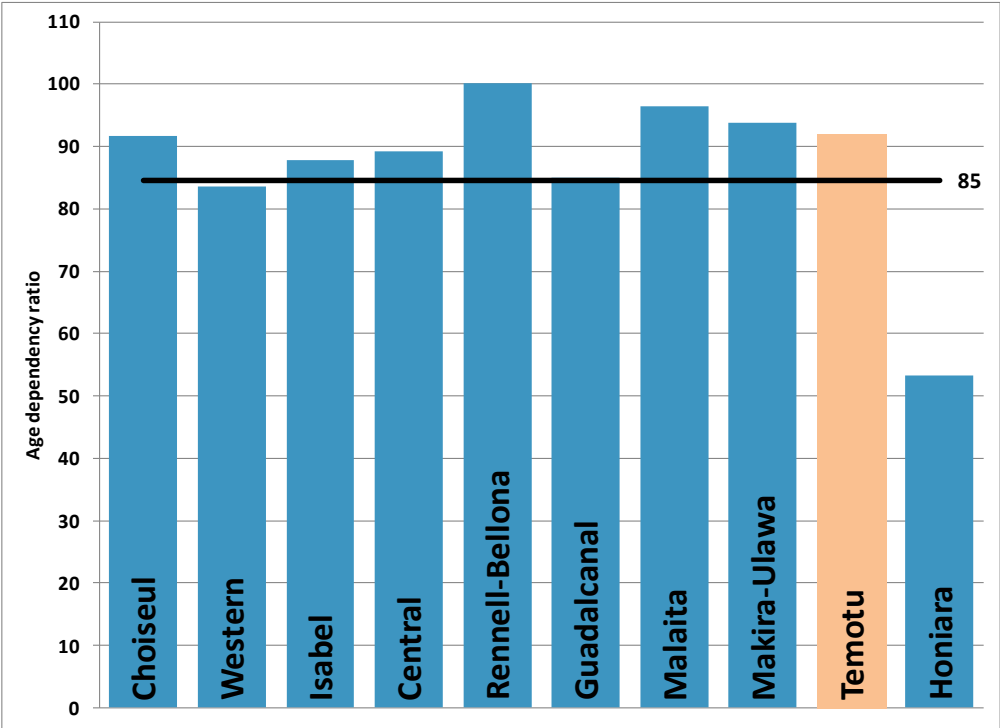


Figure 11: Population by age dependency ratio and province, Temotu: 2009



## 3. DEMOGRAPHIC COMPONENTS

### 3.1 Fertility

In order to determine the level and pattern of fertility in the Solomon Islands, women 15 years of age and older were asked the following questions:

- Whether a woman has ever given birth
- How many children they had born alive
- When was their last child born.

Based on the question whether a woman has ever given birth, it was found that approximately 5% of women remained **childless** at the end of their reproductive years.

The average number of children born alive to all women (average parity) increases with the age of women (Fig.12). While women aged 15–19 had only very few children, women aged 25–29 years had almost 2 children and women aged 45–49 had 4.7 children on average.

Figure 12 shows a comparison of the reported average number of children ever born of the last two censuses. A fertility decline is apparent as the average number of children of woman aged 25-49 years decreased. The average number of children born to women aged 45-49 years declined from 5.4 in 1999 to 4.7 in 2009.

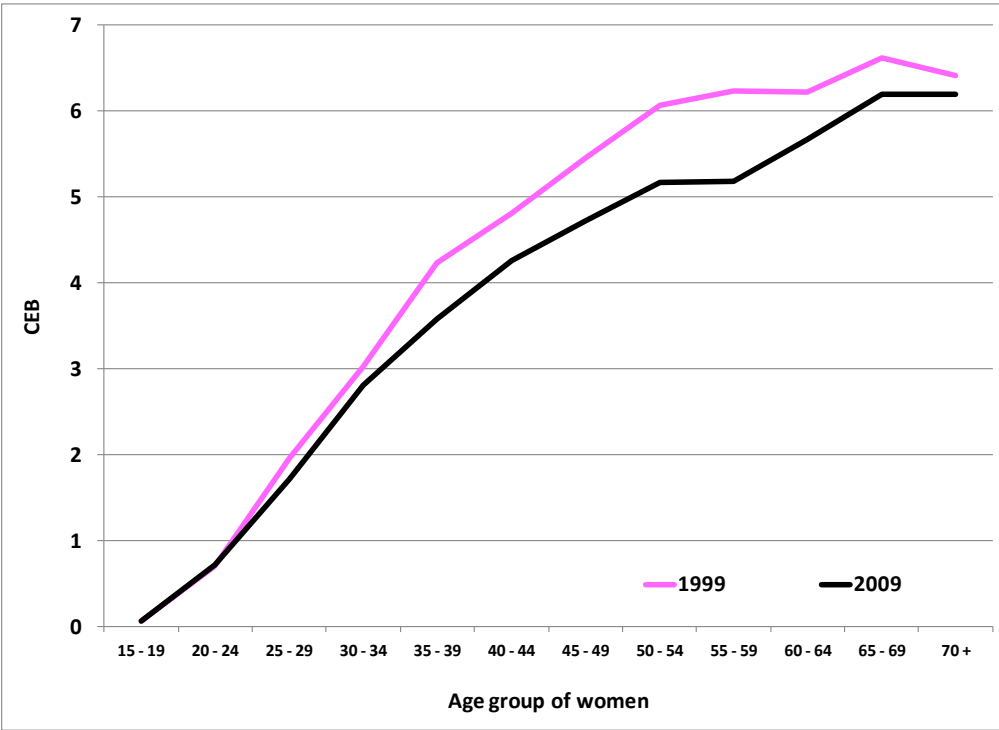
The demographic indicator most commonly used to describe a country's fertility situation is called the **total fertility rate (TFR)**. This measure is an indication of the average number of children a woman gives birth to during her reproductive life (from ages 15–49 years). It is calculated from the number of live births by age of women in a given year — the age-specific fertility rates (ASFRs).

Fertility estimates derived from the 2009 census data show that fertility levels decreased significantly from a TFR of 4.3 in 1999 to 3.8 in 2008 (Fig.13). However, the previous TFRs were estimated with the own-children method, which is suitable for measure a trend but it is not adequate to measure recent fertility. The reasons are explained in the main national census analytical report. More satisfactory to measure recent fertility are Brass-type methods. Table 2 shows the estimate of fertility using the Trussell variant of the original Brass method. The difference between the two methods is small, but it is important to select a robust and reliable method to estimate recent fertility. According to this new estimate fertility has slightly decreased in Temotu.

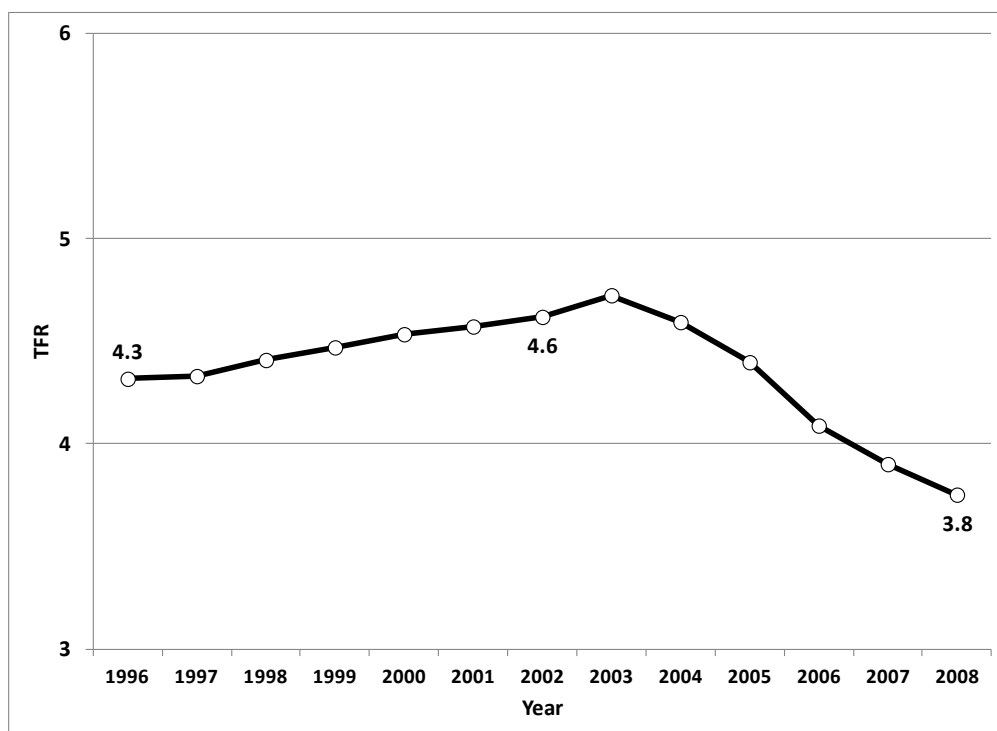
The structure of fertility has changed a little in Temotu. This is shown in Figure 14. The estimated fertility levels by age group of women shows that the fertility decline occurred in all women except among those 40-44 years. This may suggest just a seasonal trend or problems with the method utilized.

The number of births by age of women, and therefore the total number of births during the one-year period around the 2009 census can be calculated by multiplying the adjusted ASFR by the enumerated number of women by age group in the census, and summing the number of births by the age group of women (Table 2). The **mean age at childbearing (MAC)** was calculated at 29.3 years.

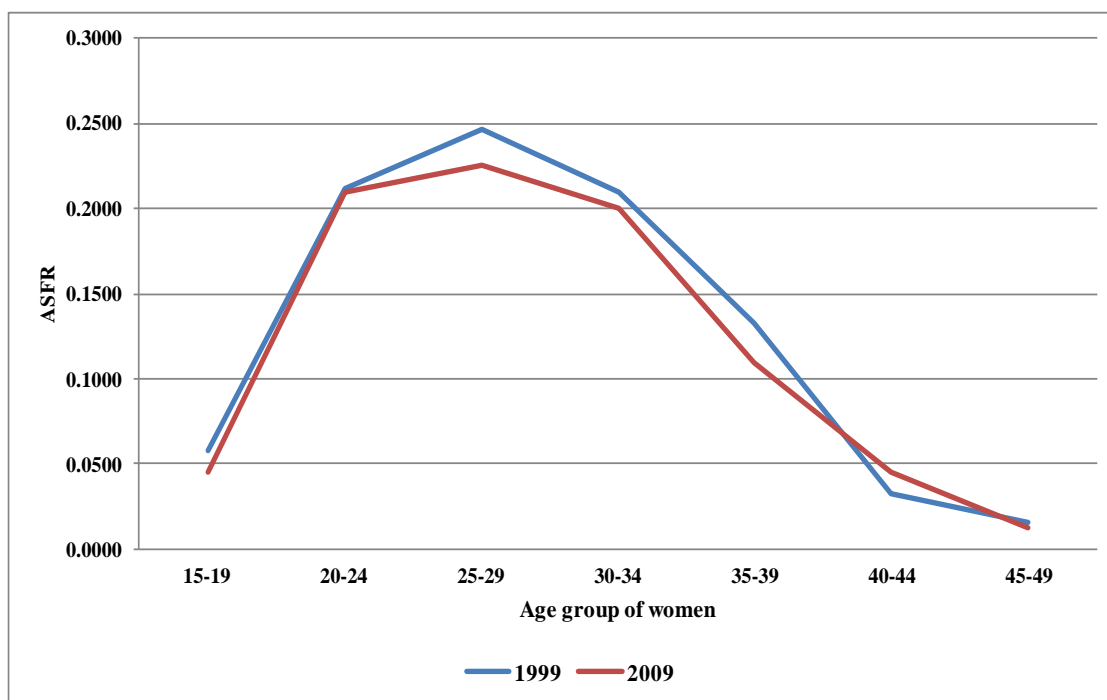
**Figure 12: Average number of children ever born alive, Temotu: 1999 and 2009**



**Figure 13: Total fertility rate (TFR), Temotu: 1996–2008**



**Figure 14: Age-specific fertility rates (ASFR), Temotu: 1999 and 2009**



**Table 2: Estimated age-specific fertility rate (ASFR), annual number of births, total fertility rate (TFR), and mean age at childbearing (MAC), Temotu: 2009**

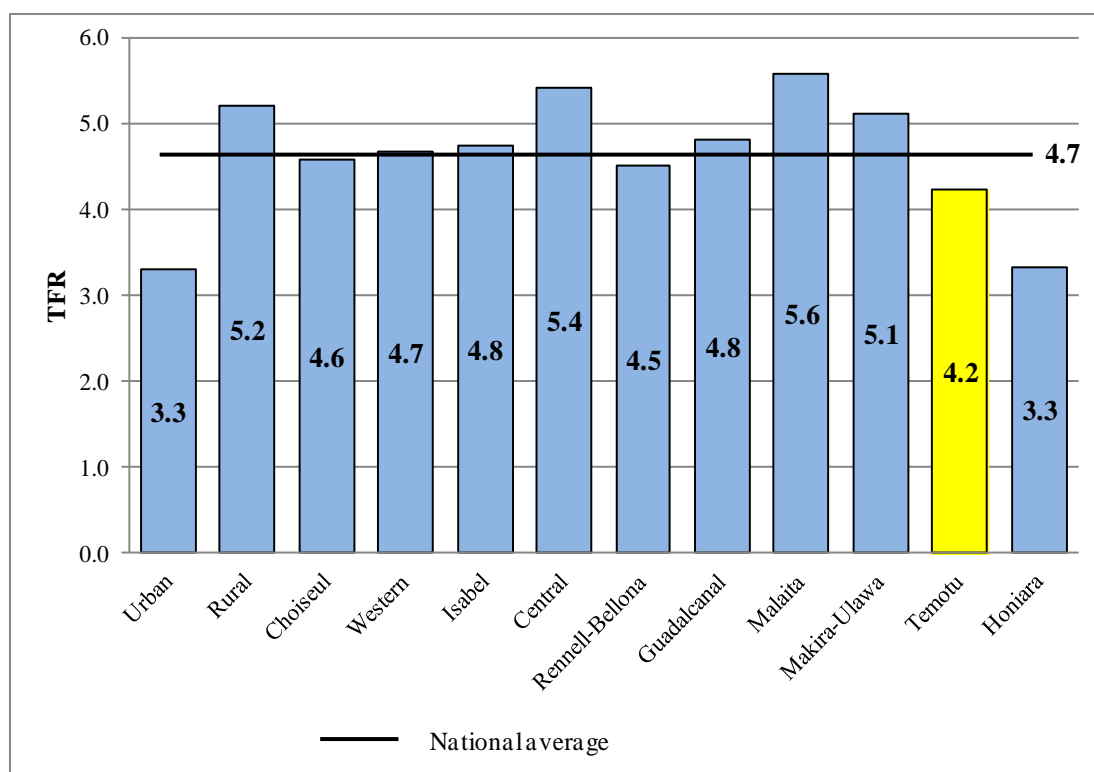
Age group of women	Number of women	Estimated ASFR <sup>1</sup>	Estimated number of births <sup>2</sup>
15-19	1035	0.0453	47
20-24	834	0.2094	175
25-29	893	0.2254	201
30-34	748	0.2001	150
35-39	761	0.1092	83
40-44	551	0.0455	25
45-49	477	0.0131	6
<b>Total</b>	<b>5,299</b>		<b>689</b>
<b>TFR</b>		<b>4.2</b>	
<b>MAC<sup>3</sup></b>			<b>29.3</b>

<sup>1</sup> Estimated with the Trussell technique

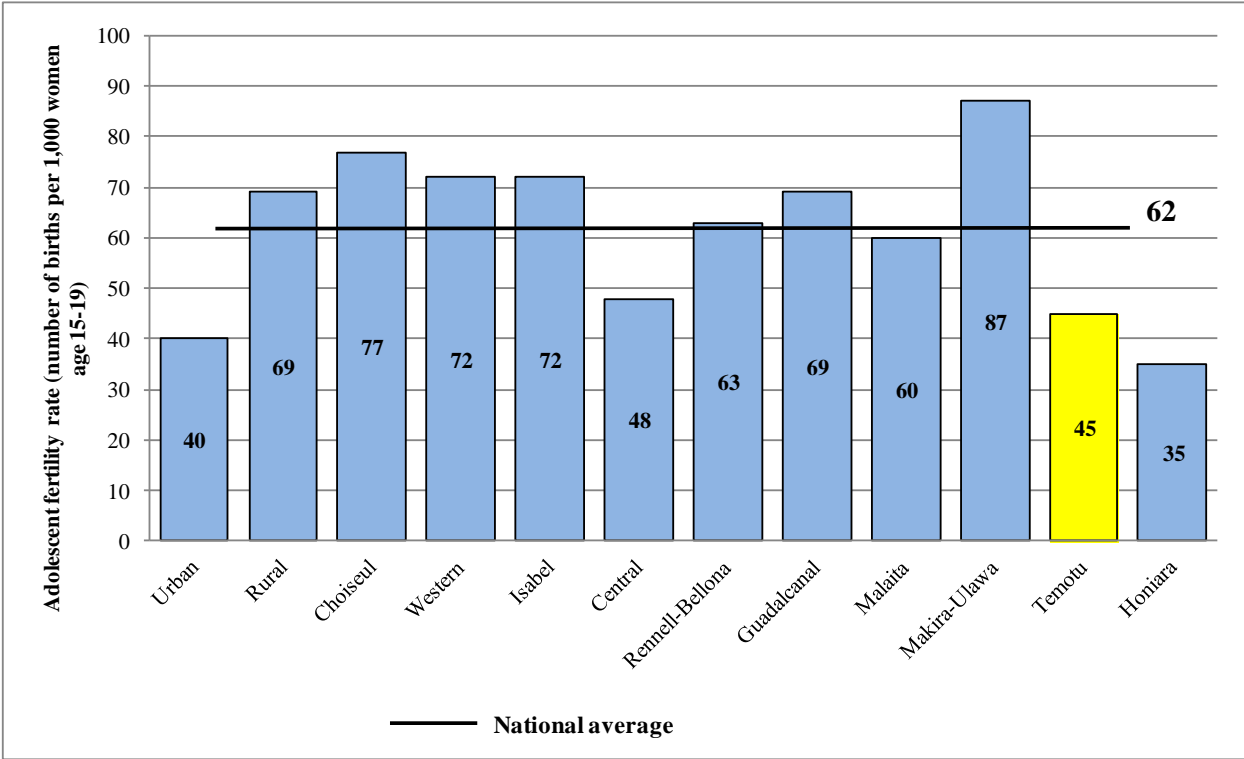
<sup>2</sup> ASFR x number of women

<sup>3</sup> Mean age at childbearing

**Figure 15: Total fertility rate (TFR) by province, Solomon Islands: 2007-2009**



**Figure 16: Adolescent fertility rate (number of births per 1,000 women aged 15-19 years), Solomon Islands: 2009**



## 3.2 Mortality

The questions relating to mortality in the 2009 census were:

- How many live births a woman has ever had, and how many of those born were still alive and/or had died;
- Whether a respondent's mother and father was still alive (orphanhood);
- Whether a respondent's marital status was "widowed" (widowhood);

### 3.2.1 Early age mortality

Infant and child survivorship can be estimated indirectly by examining answers of women aged between 15 and 50 years regarding numbers of children ever born and numbers of deceased children.

The proportion of surviving children decreases with the age of mothers (Fig.17). While 97.7% of all children that were ever born to women now aged 20–24 were still alive, only 95.3% of children born to women now aged 45–49 were still alive, and 88% of children born to women now aged 70 years and older remained alive.

A comparison of the 1999 and 2009 data show that a higher proportion of children survived in 2009 than in 1999 (Fig.17), and indication of continued improvements in the survival of children.

Overall, the proportion of surviving females was higher than that of males (Fig.18). While 95.1% of all female children ever born were still alive, only 94.6% of all male children had survived.

Based on the above data, the Infant Mortality Rate (IMR) in 2009 was estimated at 18 and 27 for males and females, respectively.

A comparison of provinces by derived IMRs shows that Temotu's infant mortality rate of males was considerably below the national male average, while that of females was significantly higher than the female national average (Fig.19).

Other child mortality indicators are listed in Table 3

**Table 3: Child mortality indicators, Temotu: 2009**

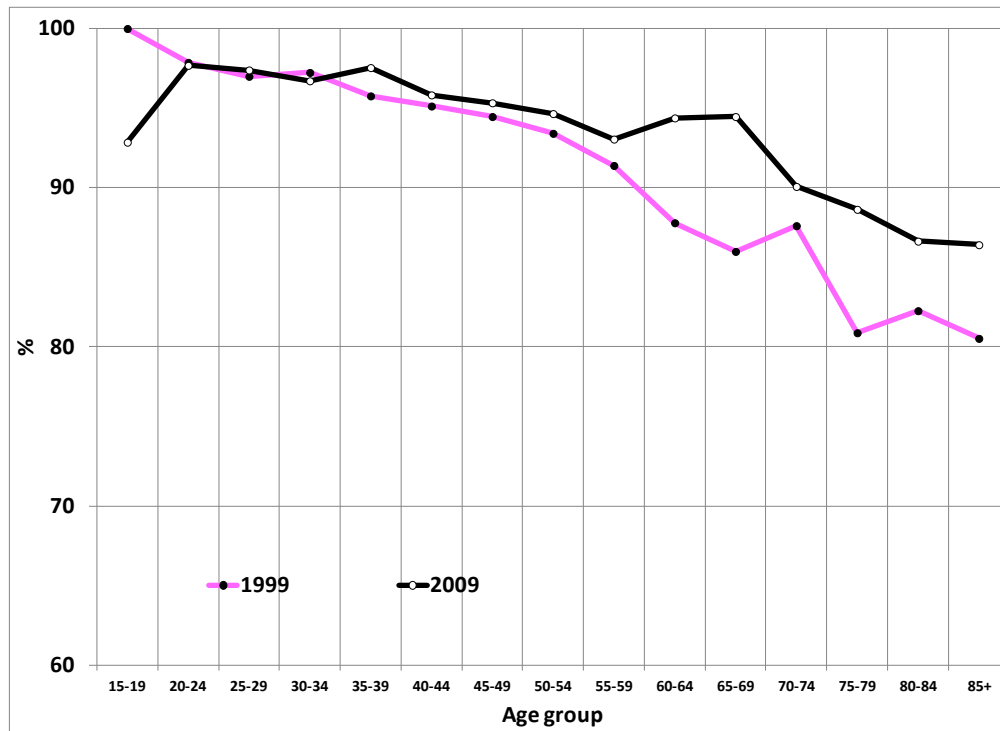
Indicator	2009		
	Total	Males	Females
Infant mortality rate (IMR) <sup>1</sup>	22	18	27
Child mortality rate (4q1) <sup>2</sup>	6	3	9
Under-5 mortality rate (q5) <sup>3</sup>	28	21	36

<sup>1</sup> = the number of deaths of children under one year of age per 1,000 live births

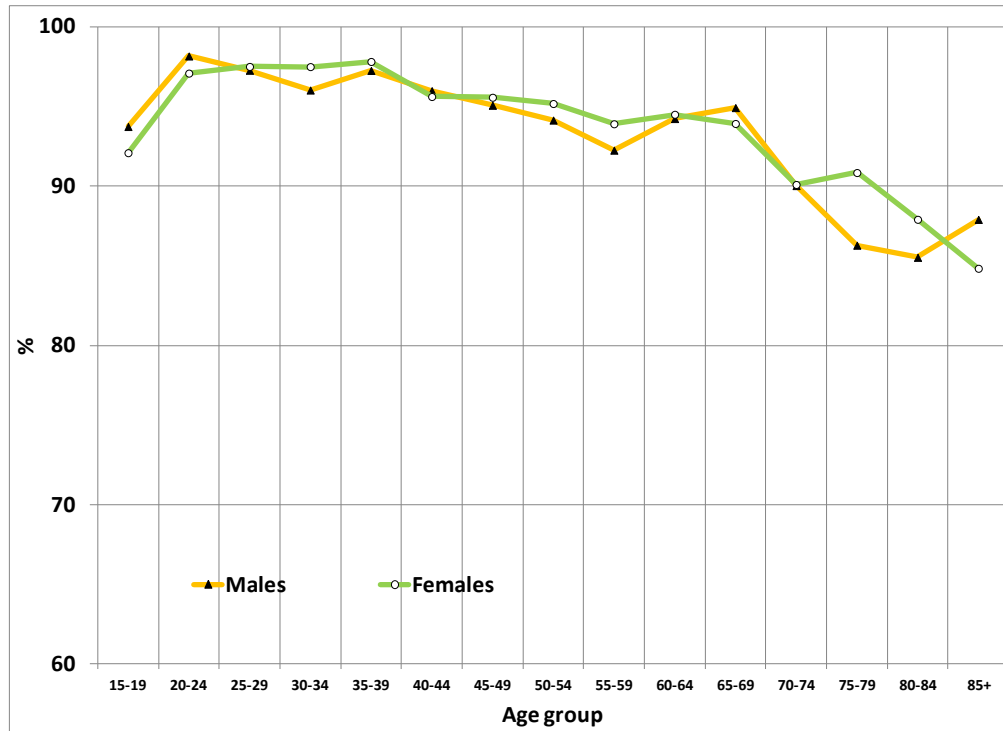
<sup>2</sup> = the probability of dying between age 1 and age 5 (per 1000)

<sup>3</sup> = the probability of dying between birth and age 5(per 1000)

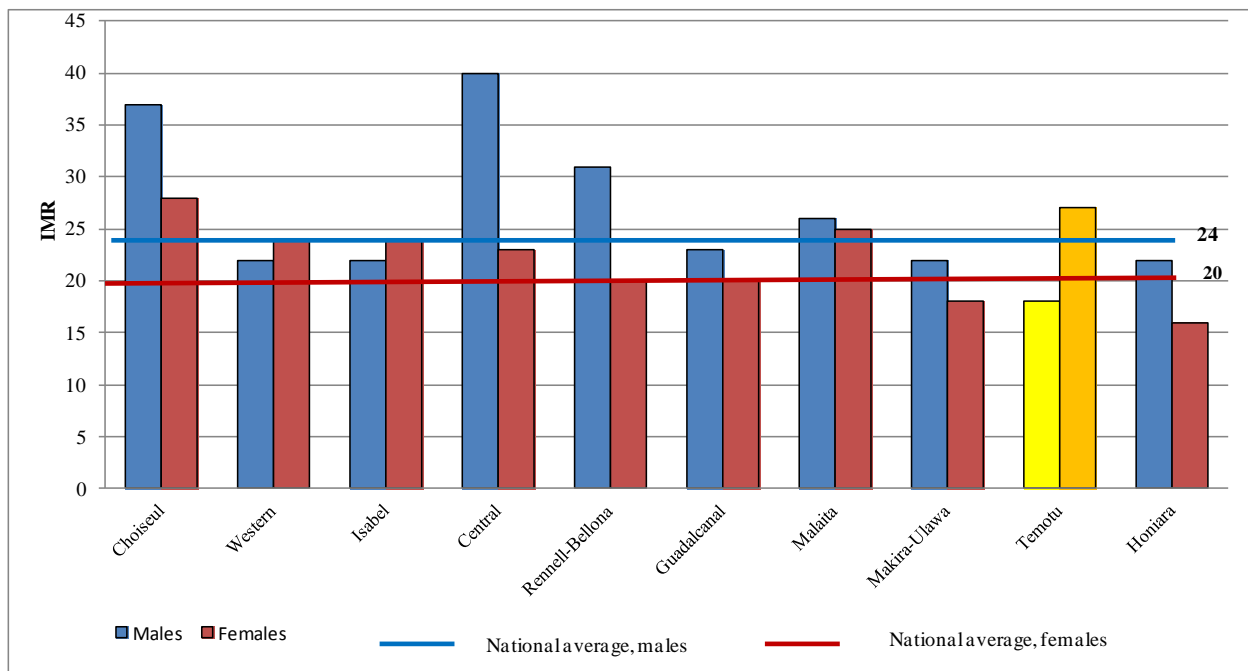
**Figure 17: Proportion of children ever born and still alive by age of mother, Temotu: 1999 and 2009**



**Figure 18: Proportion of children ever born and still alive by sex and by age of mother, Temotu: 2009**



**Figure 19: Infant mortality rate (IMR) by sex and by province, Solomon Islands: 2009**



### 3.2.2 Adult mortality

Adult mortality levels can be estimated from responses to the question

- whether a respondent's mother or father was still alive (orphanhood), and
- whether a respondent's marital status was "widowed" (widowhood).

#### Orphanhood

The census questionnaire included questions on whether respondents' mothers and fathers were still alive. The answers to these questions can yield indirect estimates of adult mortality.

From the total population of Temotu 70.6% responded that their father was still alive and 78.8% responded that their mother was still alive. The number and proportion of respondent's mother still alive is higher than that of fathers at any age of respondent (Fig.20).

#### Widowhood

The number and proportion of females widowed is higher than that of males, especially at older ages (Fig.21). There are 2 explanations for it:

1. Females usually live longer lives than males (her spouse), and
2. Males are usually older than females, because of their age difference at marriage.

The data on marital status (widowhood) provides interesting and valuable insights into mortality differentials between males and females, as the large difference in widowed males and females points to lower mortality rates (higher life expectancies) for females than males.

### 3.2.3 Complete life table

The derived infant mortality and the national mortality pattern were used to construct life tables for the male and female Temotu population (Tables 4 and 5). The estimated life expectancies at birth of 66.2 and 73.1 years for males and females, respectively, is the number of years a newborn baby can expect to live on average.

Figure 22 shows a comparison of life expectancies at birth by province, and it shows that Temotu's male population had higher than average male life expectancies, while females equalled the national female average.

Figure 20: Proportion of respondent's father or mother still alive, Temotu: 2009

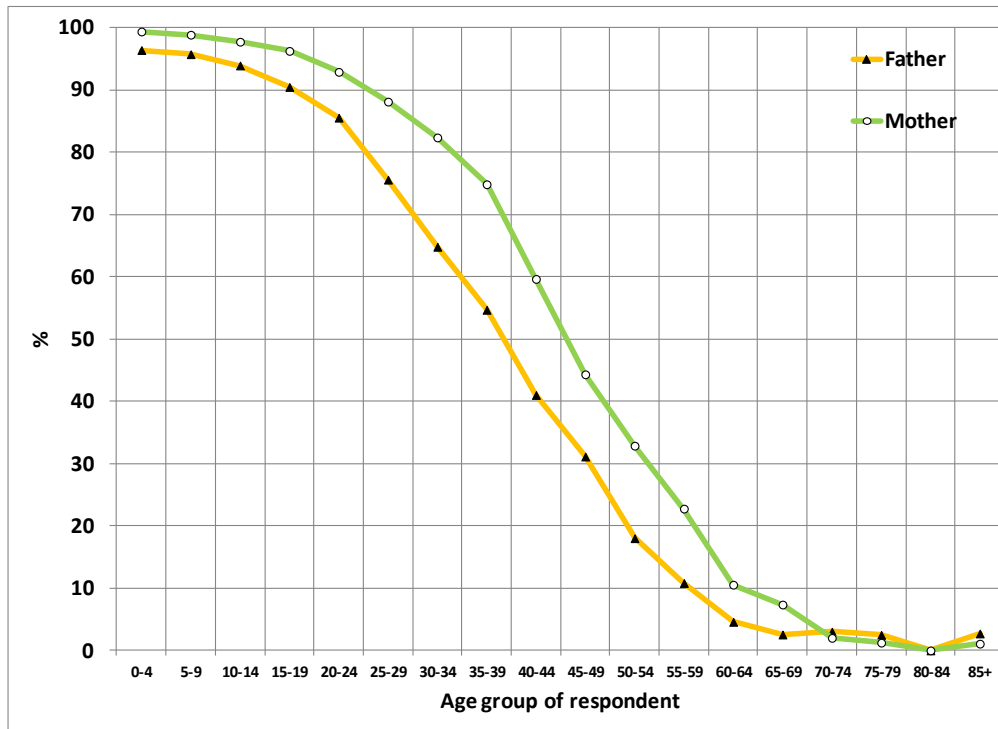
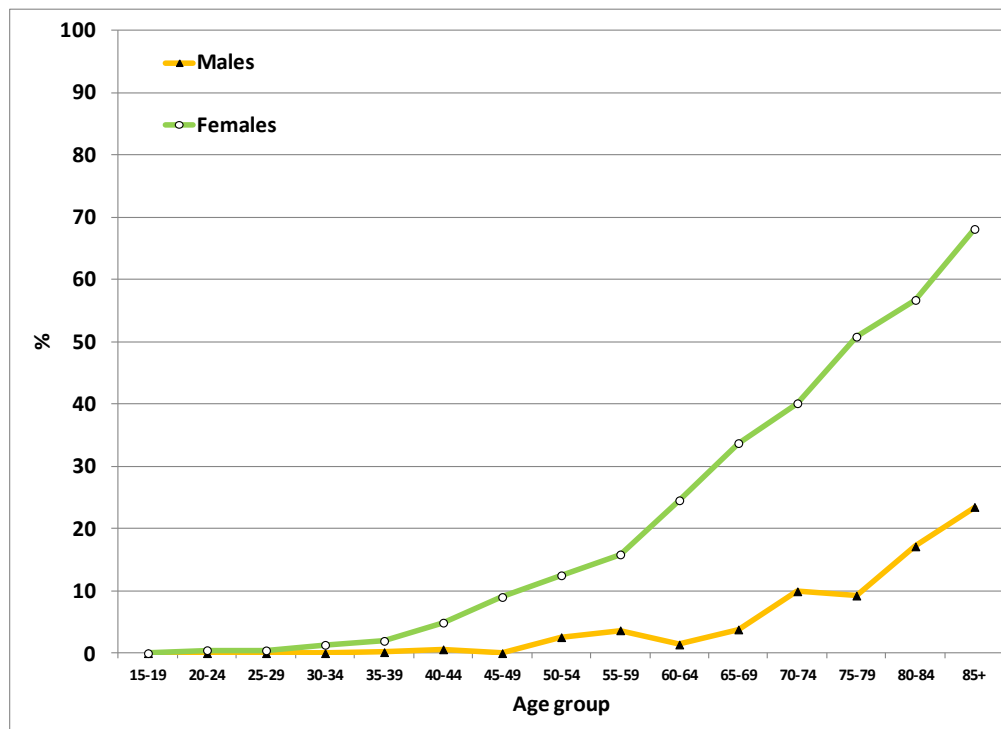


Figure 21: Proportion of population 15 years and older by sex and widowed, Temotu: 2009



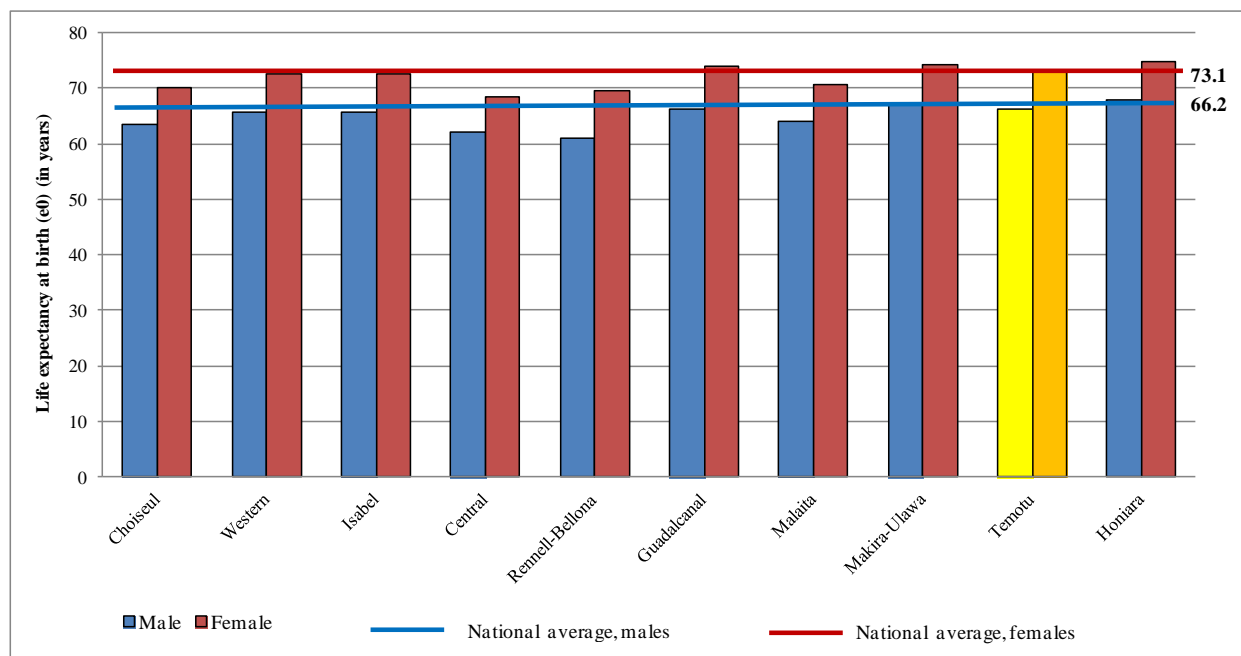
**Table 4: Abridged life table for males, Temotu: 2009**

Age	m(x,n)	q(x,n)	l(x)	d(x,n)	L(x,n)	S(x,n)	T(x)	e(x)
0	0.0245	0.0240	100,000	2,400	97,868	0.9728	6,619,898	<b>66.2</b>
1	0.0020	0.0080	97,600	781	388,511	0.9898	6,522,031	66.8
5	0.0022	0.0110	96,819	1,065	481,433	0.9907	6,133,520	63.4
10	0.0015	0.0075	95,754	718	476,976	0.9896	5,652,086	59.0
15	0.0029	0.0142	95,036	1,350	472,030	0.9841	5,175,111	54.5
20	0.0034	0.0170	93,687	1,593	464,510	0.9827	4,703,081	50.2
25	0.0035	0.0175	92,094	1,612	456,464	0.9819	4,238,571	46.0
30	0.0038	0.0189	90,482	1,710	448,191	0.9801	3,782,107	41.8
35	0.0043	0.0212	88,772	1,882	439,264	0.9767	3,333,916	37.6
40	0.0052	0.0259	86,890	2,250	429,010	0.9709	2,894,653	33.3
45	0.0067	0.0330	84,640	2,793	416,542	0.9600	2,465,643	29.1
50	0.0098	0.0480	81,847	3,929	399,881	0.9448	2,049,101	25.0
55	0.0131	0.0637	77,918	4,963	377,792	0.9216	1,649,220	21.2
60	0.0202	0.0965	72,955	7,040	348,156	0.8807	1,271,428	17.4
65	0.0314	0.1463	65,914	9,643	306,638	0.8195	923,272	14.0
70	0.0497	0.2218	56,271	12,481	251,290	0.7274	616,634	11.0
75	0.0800	0.3340	43,790	14,626	182,794	0.4997	365,344	8.3
80	0.1598	...	29,164	29,164	182,550	...	182,550	6.3

**Table 5: Abridged life table for females, Temotu: 2009**

Age	m(x,n)	q(x,n)	l(x)	d(x,n)	L(x,n)	S(x,n)	T(x)	e(x)
0	0.0204	0.0200	100,000	2,000	98,220	0.9785	7,305,041	<b>73.1</b>
1	0.0010	0.0040	98,000	392	391,017	0.9961	7,206,821	73.5
5	0.0006	0.0030	97,608	293	487,308	0.9973	6,815,804	69.8
10	0.0005	0.0024	97,315	234	485,992	0.9964	6,328,496	65.0
15	0.0011	0.0054	97,082	524	484,225	0.9933	5,842,504	60.2
20	0.0016	0.0078	96,557	753	480,962	0.9921	5,358,279	55.5
25	0.0016	0.0079	95,804	757	477,146	0.9917	4,877,317	50.9
30	0.0018	0.0088	95,047	836	473,186	0.9906	4,400,172	46.3
35	0.0020	0.0101	94,211	952	468,750	0.9886	3,926,986	41.7
40	0.0026	0.0130	93,259	1,212	463,407	0.9848	3,458,236	37.1
45	0.0036	0.0180	92,047	1,657	456,371	0.9765	2,994,830	32.5
50	0.0061	0.0299	90,390	2,703	445,629	0.9650	2,538,459	28.1
55	0.0083	0.0409	87,688	3,586	430,024	0.9475	2,092,830	23.9
60	0.0138	0.0669	84,101	5,626	407,446	0.9146	1,662,806	19.8
65	0.0226	0.1073	78,475	8,420	372,635	0.8651	1,255,359	16.0
70	0.0366	0.1683	70,054	11,790	322,369	0.7862	882,724	12.6
75	0.0618	0.2687	58,264	15,656	253,448	0.5477	560,355	9.6
80	0.1388	...	42,609	42,609	306,908	...	306,908	7.2

**Figure 22: Life expectancy at birth (e0) by sex and by province, Solomon Islands: 2009**



## 4. SOCIAL CHARACTERISTICS

### 4.1 Marital status

During the 2009 census, 54% of males and 51% of females aged 15 and older were legally married and another 8% and 7% of males and females were living in a de facto relationship (Fig.23). The proportion never married (single), were 35% of males and 31% of females. A higher proportion of females (8%) were widowed than males (2%).

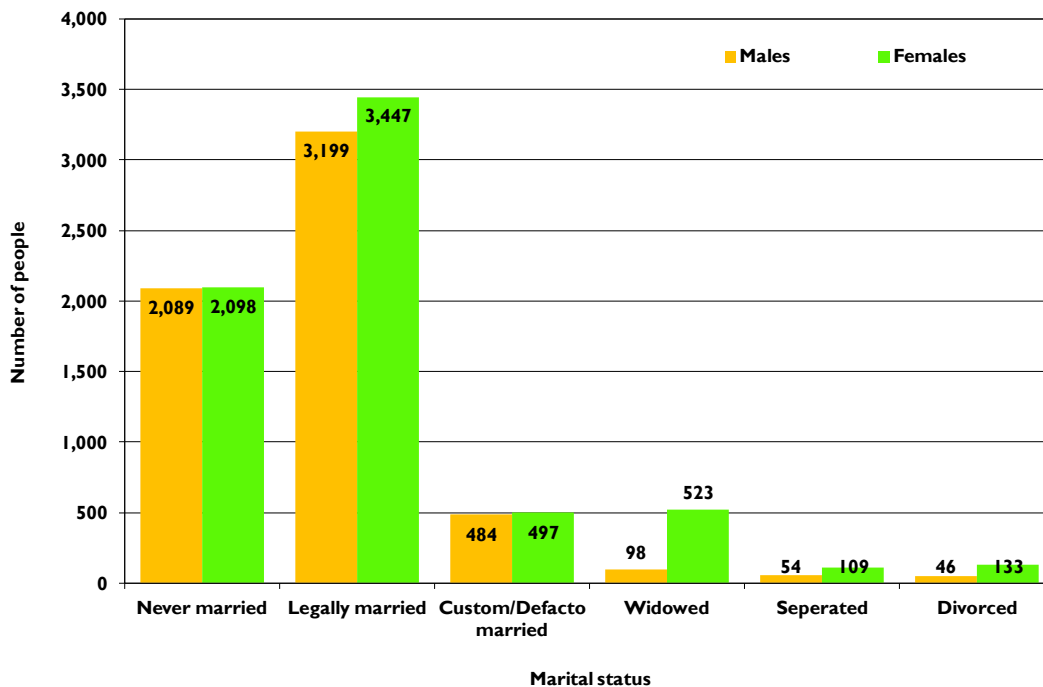
The age at marriage is an important proximate determinant of fertility. Women who marry at an early age often have more children than those marrying later.

The higher proportion of young married women compared with men of the same age indicates that women generally marry at younger ages than men (Fig.24). The **average age at marriage** (Singulate mean age at marriage, SMAM) was 27.7 and 24.1 years for males and females, respectively, and was calculated based on the proportion of those never married/single by age. This represents an average **age difference at marriage** of 3.6 years between males and females.

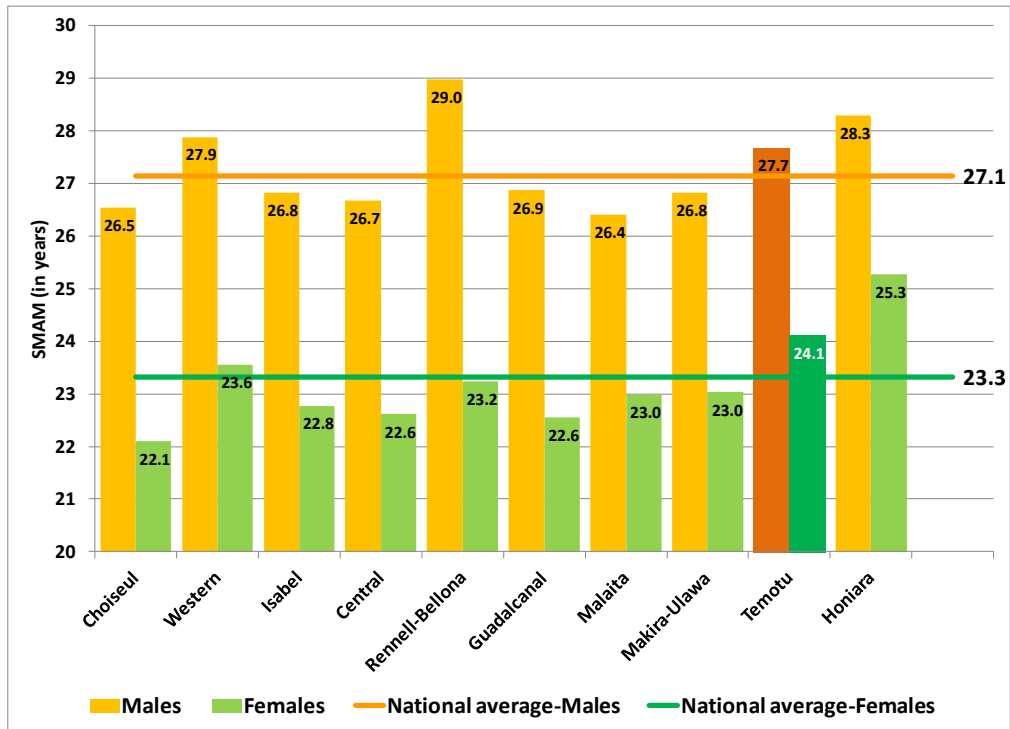
Compared to the national average, Temotu's males and females marry at an older age (Fig.24).

While only 1% of males were married at ages 15-19, it was about 8% of females (Fig.25). At age 20-24 43% of all women were already married compared with 15% of males.

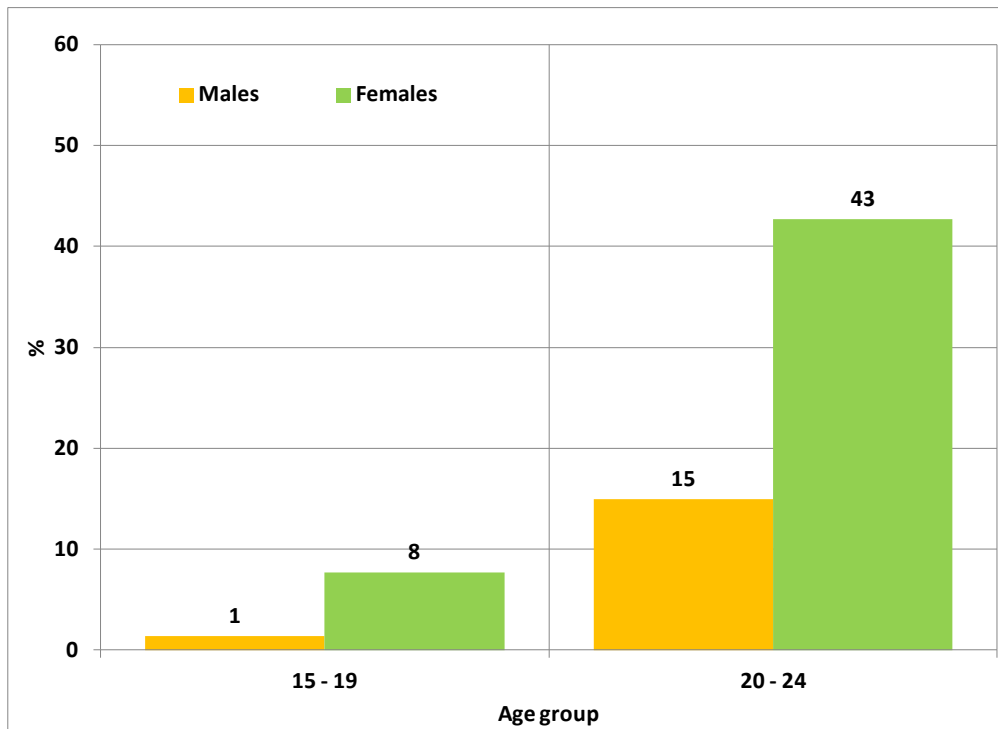
**Figure 23: Population aged 15 and older by marital status, Temotu: 2009**



**Figure 24: Average age at marriage (SMAM) by sex and province, Solomon Islands: 2009**



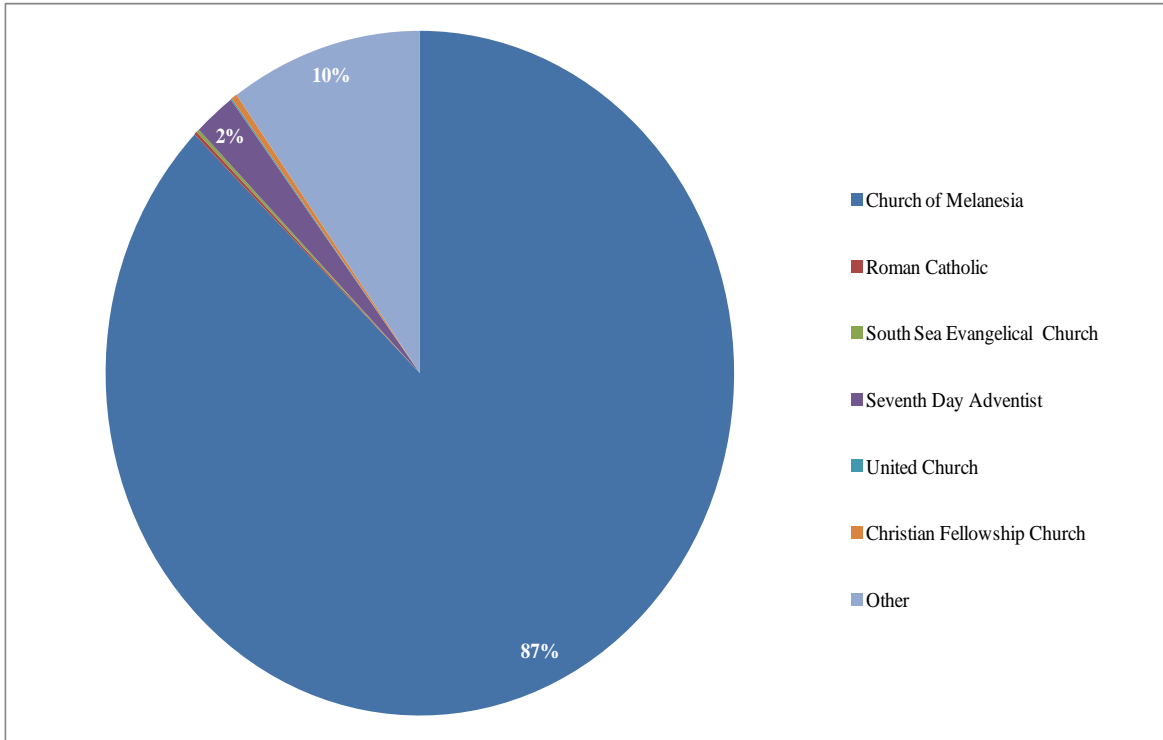
**Figure 25: Population married at young ages by sex (%), Temotu: 2009**



## 4.2 Religion

With 87% of the population affiliated with the Church of Melanesia, it was the dominant religious denomination in Temotu (Fig.26). The next largest group was the Seventh Day Adventists with a share of 2% of all denominations. All other denominations had together about 10% affiliation.

**Figure 26: Population by religious affiliation, Temotu: 2009**

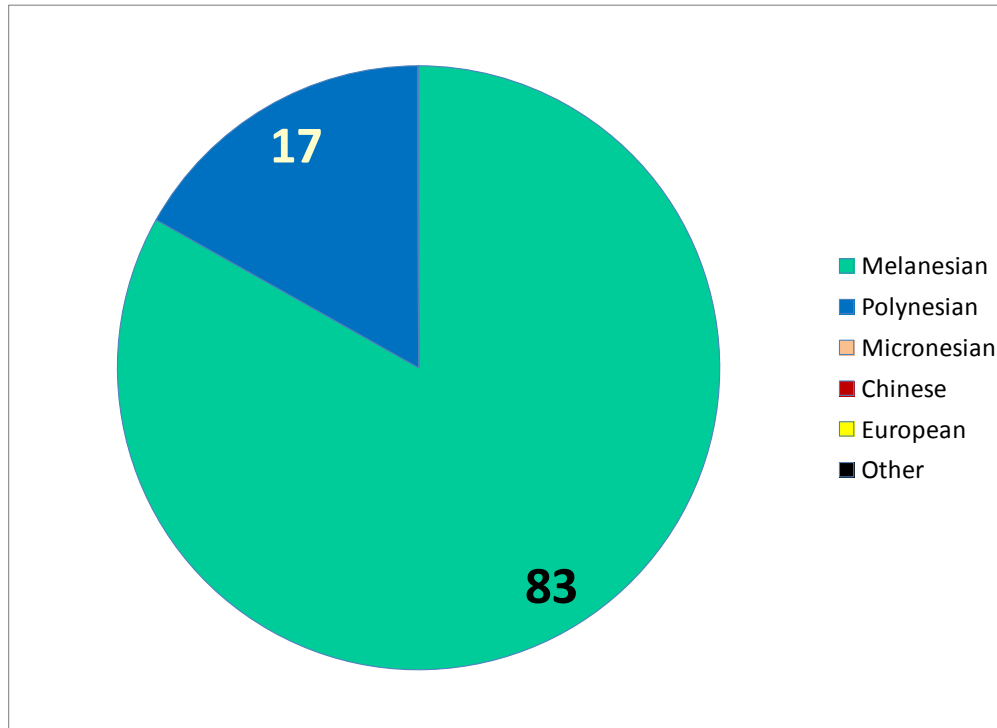


### 4.3 Ethnic origin

Based on information on the number of people by ethnic origin, Temotu's population composition consisted of 83% Melanesians, and 17% were of Polynesian decent (Fig.27).

All other ethnic groups such as Micronesians, Chinese or European had a share of less than 1 % of the population.

**Figure 27: Population by ethnic origin (%), Temotu: 2009**



### 4.4 Disability

The Solomon Islands is a signatory to a United Nations convention to uphold the rights of people with disabilities; and is therefore obliged to:

*“Promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities and to promote respect for their inherent dignity.”*

The question on disabilities included in the 2009 Census was whether a person had any difficulties or health problems in seeing, hearing, walking, and/or remember or concentrating – regardless of the severity of the difficulties experienced. It also asked whether a person cannot see, hear, walk or remember or concentrate at all – in other words, whether a person is blind, deaf, lame or senile and/or amnesic.

The number of people reported to be senile and/or amnesic was 151, another 160 people could not walk at all (lameness), 79 people were deaf, and 71 people were blind (please note that a person can have more than one disability).

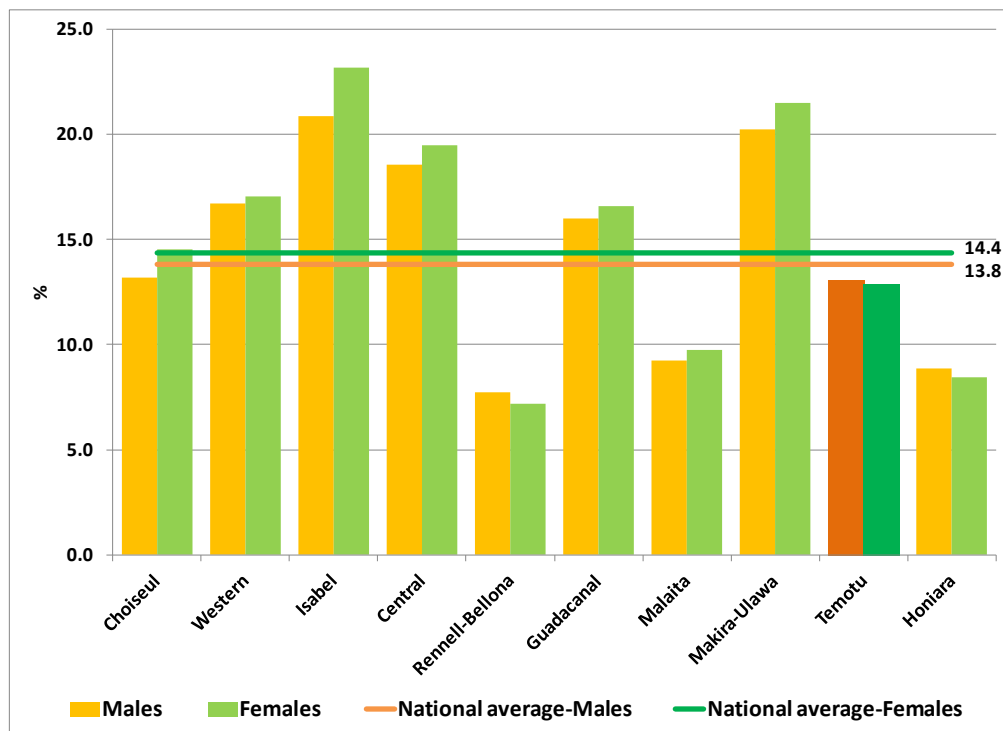
**Table 6: Number of people with a severe disability**

Type of disability	Total	Males	Females
Blindness	71	36	35
Deafness	79	39	40
Lameness	160	76	84
Senile and/or amnesic	151	71	80

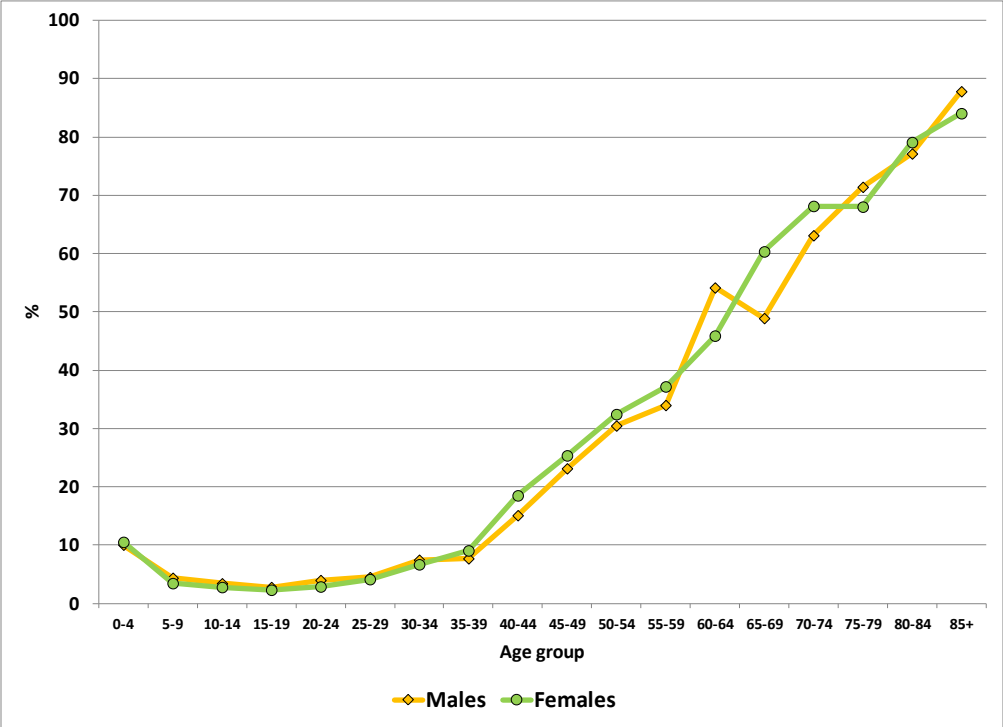
Overall, about 13% of the total population reported a disability regardless of the severity of the disability, and the proportion of males with a disability was slightly higher than that of females (Fig.28). The proportion of Temotu’s population reporting a disability was lower than the national average.

As can be expected, the proportion of the population with a disability increased with age (Fig.29).

**Figure 28: Proportion of the population by sex and province reporting a disability regardless of the severity of the disability, Solomon Islands: 2009**



**Figure 29: Proportion of the population by age and sex reporting a disability regardless of the severity of the disability, Temotu: 2009**



## 4.5 Educational characteristics

### 4.5.1 School enrollment

At the time of the census, 6,495 people of the total enumerated population 5 years and older were enrolled in schools; 3,367 males and 3,128 females. The distribution of those attending a school by school level is shown in Table 7. More than half (56%) of all students were enrolled in primary schools, 16% in secondary schools and 20% in Preschools. Less than 1% of all students attended a tertiary institution, and another 1% a vocational institution. ‘Other’ institutions include apprenticeships, or specialized trades schools.

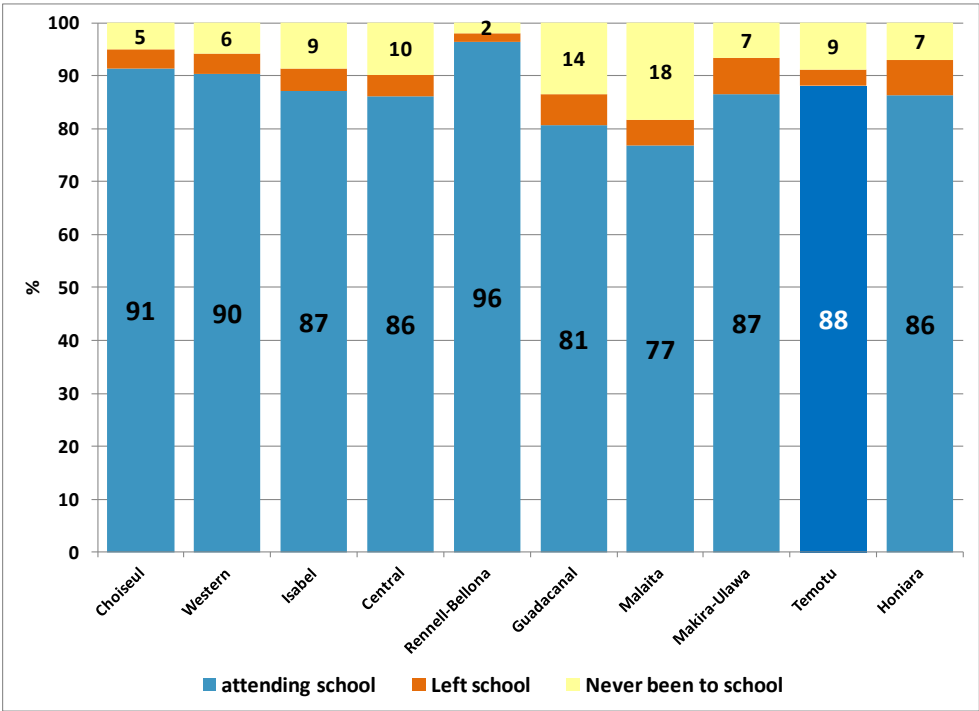
**Table 7: Population 5 years and older by sex and enrolled in school by school level attending, Temotu: 2009**

<b>Educational level</b>	<b>Total</b>	<b>Males</b>	<b>Females</b>
<b>Preschool</b>	<b>1,289</b>	<b>646</b>	<b>643</b>
<b>Primary</b>	<b>3,646</b>	<b>1,927</b>	<b>1,719</b>
Standard 1	774	422	352
Standard 2	711	372	339
Standard 3	673	353	320
Standard 4	568	302	266
Standard 5	469	239	230
Standard 6	451	239	212
<b>Secondary</b>	<b>1,067</b>	<b>565</b>	<b>502</b>
Form 1	388	206	182
Form 2	293	152	141
Form 3	190	97	93
Form 4	117	60	57
Form 5	68	42	26
Form 6/7	11	8	3
<b>Tertiary</b>	<b>6</b>	<b>3</b>	<b>3</b>
<b>Vocational</b>	<b>82</b>	<b>37</b>	<b>45</b>
<b>Other</b>	<b>405</b>	<b>189</b>	<b>216</b>
<b>Total</b>	<b>6,495</b>	<b>3,367</b>	<b>3,128</b>

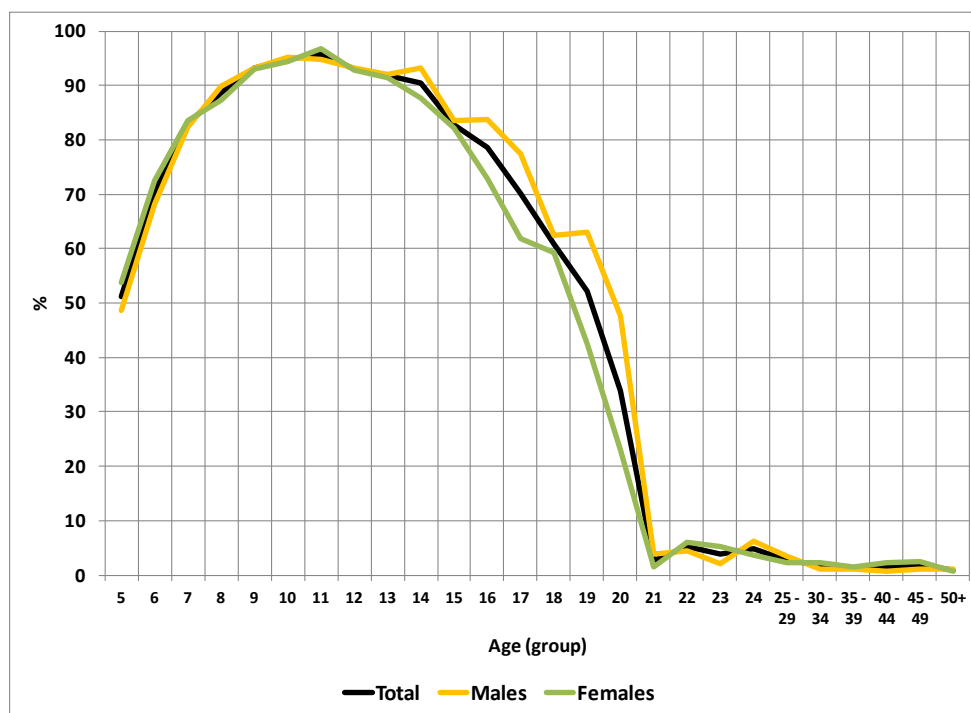
With respect to the population aged 6-15 years, 88% of males and females were enrolled in school. Three percent of the population aged 6-15 had already left school, and 9% had never been in school. Enrolment rates in Temotu were higher than in most other provinces (Fig.30).

However, school enrolment rates vary significantly by age; a relatively large proportion of the 5, 6 and even 7-year olds were not in school, and enrolment rates drop quickly after the age of 14. The highest enrolment rates can be found among the 9-12 year olds (Fig.31).

**Figure 30: Proportion of the population aged 6-15 years by sex and school attendance status (%), Solomon Islands: 2009**



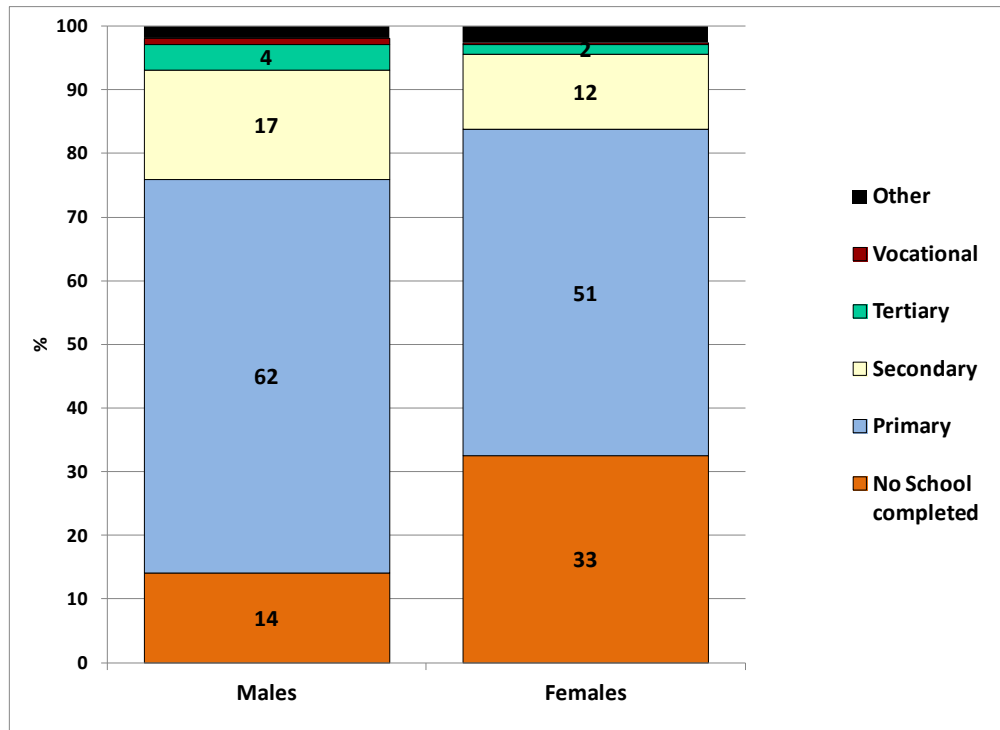
**Figure 31: Proportion of the population 5 years and older by age and sex enrolled in school (%), Temotu: 2009**



### 4.5.2 Educational attainment

Based on data on the highest level of education completed, 17% of males and 12% of females 12 years and older responded that they had attended secondary education (Form 3-7); 62% and 51% of males and females completed only primary level, and 14% of males and 33% of females had no schooling completed (no schooling, preschool, or only some primary). Four per cent of males and 2% of females had tertiary education (Fig.32).

**Figure 32: Population 12 years and older by sex and highest level of education completed (%), Temotu: 2009**



### 4.5.3 Literacy and language ability

#### Literacy

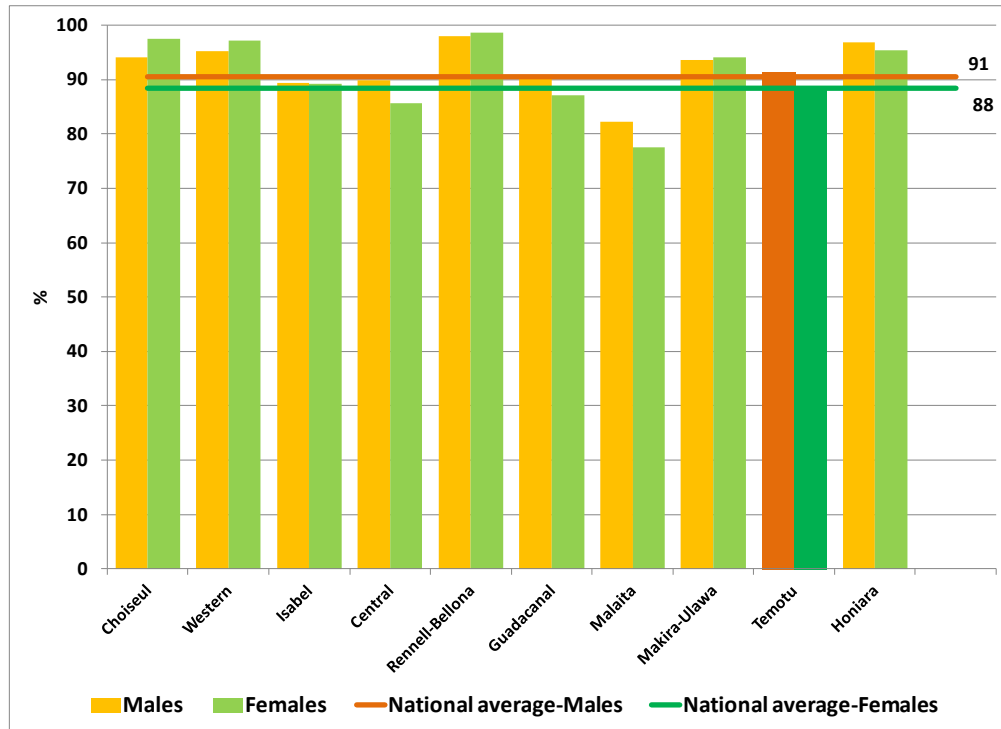
The literacy rate in a population is one of the most important indicators of development. Literacy - defined as the ability to read and write – refers to the skill that enables people to access, understand and communicate information in today’s society. The 2009 census included a question in order to capture the literacy rate by asking the question to all persons 5 years and older: “*Can you read and write a simple sentence in one or more of the following languages: English, Pidgin, Local language, or Other language?*”. The way the question was phrased captures a basic skill of reading and writing, and not a more fluent literacy. A disadvantage of a question like this is that the obtained measure refers to self-reported literacy, which is likely to be biased as some illiterate people may be embarrassed to admit that they cannot read and write. Based on the responses to the above question, the literacy rate for males and females aged 15-24 years was 91.4% and 88.4% (Fig.33), and was equal to the national average.

The age group with the highest rate of literacy was the 15-19 year old population, with higher than 90% literacy (Fig.34). It is somewhat surprising that the literacy rate of the 10-14 year old

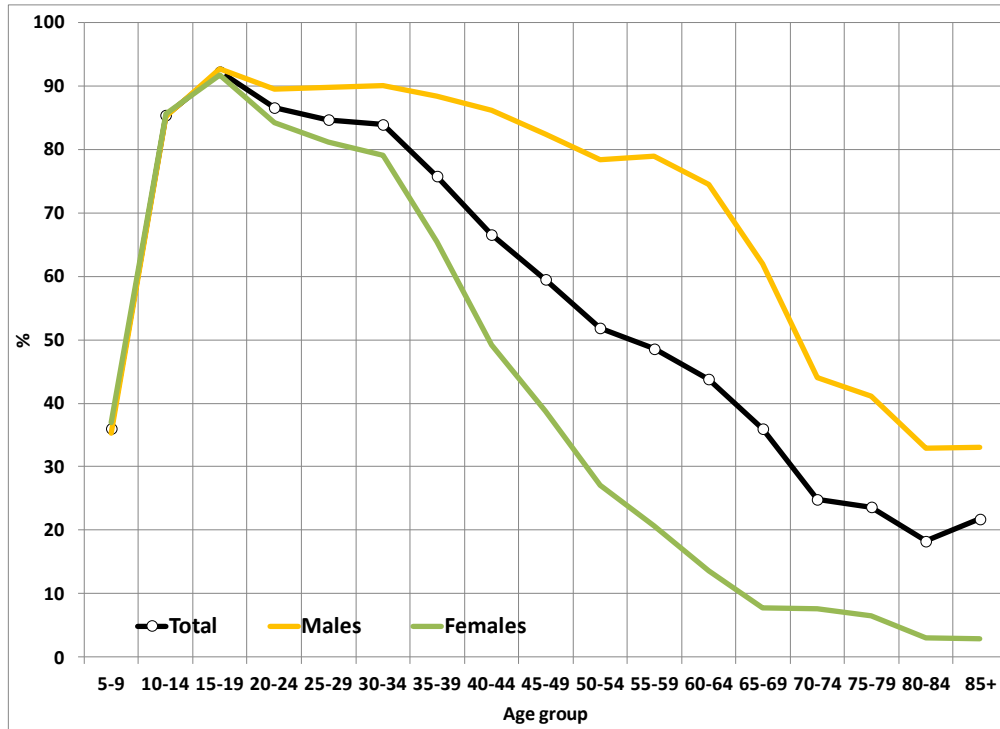
school age population was relatively low as one would expect that they all should be able to read and write a simple sentence. From the age of 35 literacy rates gradually declined with increasing age of the population.

From age 20 literacy rates were much higher for males than females.

**Figure 33: Literacy rate of the population aged 15-24 years by sex and province (%), Solomon Islands: 2009**



**Figure 34: Literacy rate of the population 5 years and older by age and sex (%), Temotu: 2009**



### Language ability

Literacy in terms of language abilities is shown in Table 8. Please note that a respondent could record speaking more than one language if applicable.

English was most widely spoken by 66% of the population 5 years and older; it was followed by Pidgin with 54%, and a Local language (36%). An additional 13% of the population spoke ‘other’ languages. In most cases this category refers to other local languages if a person spoke more than one local language.

**Table 8: Number of people 5 years and older by type of language spoken, Temotu: 2009**

Language	Number of people speakig language			As % of population 5 years and older		
	Total	Males	Females	Total	Males	Females
English	12,200	6,543	5,657	66	73	59
Pidgin	9,915	5,360	4,555	54	60	48
Local language	6,634	3,667	2,967	36	41	31
Other language	2,349	1,281	1,068	13	14	11

## 4.6 Labor market activity

The 2009 census included a question on labour market activity. Respondent aged 12 and over were asked whether they worked during the last week. Work was defined as any activity concerned with providing the necessities of life. It did not matter whether or not the person had a job or was paid for what they did.

A person who “*works for pay*” is someone who worked for wages, salary, commission, or had a contract, or was operating a business. The person was either a government or private employee, an employer, or was self-employed, including persons who “produced goods for sale” performing a variety of tasks such as farming, gardening, fishing or producing handicrafts mainly for sale.

A person who “*produced goods for own consumption*”, performed a variety of tasks such as farming, gardening, fishing or producing handicrafts for their own consumption and are subsequently described as *subsistence workers*.

A person that did “*voluntary work*” or “*unpaid family work*” is someone who worked but did not receive a wage, salary, commission, and did not have a contract.

Based on the above, data collected have been assigned to the three categories of:

- **employed** (those that “work for pay” or “produced goods mainly for sale” or “produced goods mainly for own consumption”, and those doing “voluntary work”, or “unpaid family work”);
- **unemployed** (see definition below);
- **not in the labour force** (those not employed or unemployed).

The total **labor force** included all persons *employed* and *unemployed*, and consisted of 9,687 people (4,390 males and 5,297 females) is defined as those being employers or self employed, employees, those that did unpaid work, subsistence work and the unemployed (Fig.35 and App.2).

In terms of **employment sector**, from all employees 64% were employed by government and 36% by private enterprises.

The **labour force participation rate (LFPR)** is the number of people in the labour force by a given age and sex, divided by the corresponding total population with the same characteristics, multiplied by 100.

The LFPR was higher for males (65.1) than for females (70.4), and it was very low for the population 12-19 years. The LFPR was the highest for people aged 25-59, and rapidly dropped

from age 60 onwards. In comparison to the other provinces the LFPR was much higher than most provinces (Figs.36-37).

The **paid employed** people are defined as those who “work for pay” and “work to support the household by producing goods mainly for sale”. The total number of paid employed people consisted of 2,101 people, 1,431 males and 670 females.

The **employment–population ratio (EPR)** is the number of people employed in cash work by a given age and sex, divided by the corresponding total population with the same characteristics, multiplied by 100.

The EPR was higher for males (21.2) than for females (8.9), and it was very low for the population 12-19 years. The EPR was the highest for people aged 25-64, and gradually decreased from then onwards. The EPR was much lower than the national average (Figs.38-39).

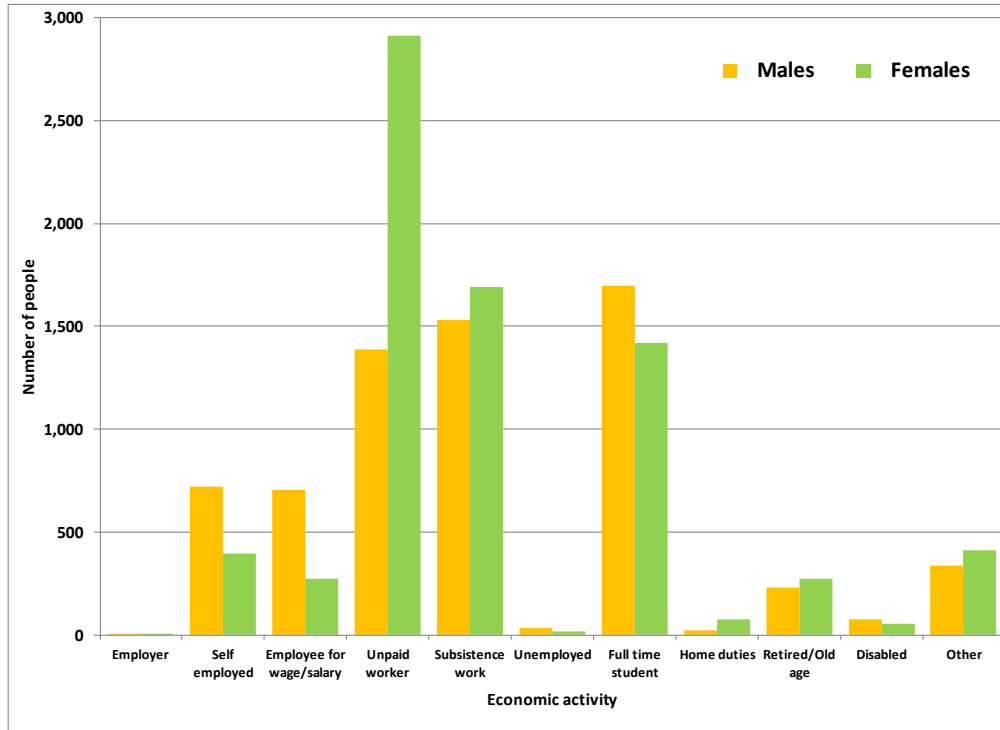
The **non-labor force** of 4,573 people is defined as those being full time students, those engaged in home duties , the retired, the disabled , and all those who did not work and were not unemployed (did not look for and were not available for work) for various reasons (App.2).

The **unemployment rate** is the number of people unemployed by a given age and sex, divided by the population in the labor force with the same characteristics, multiplied by 100. People classified as unemployed:

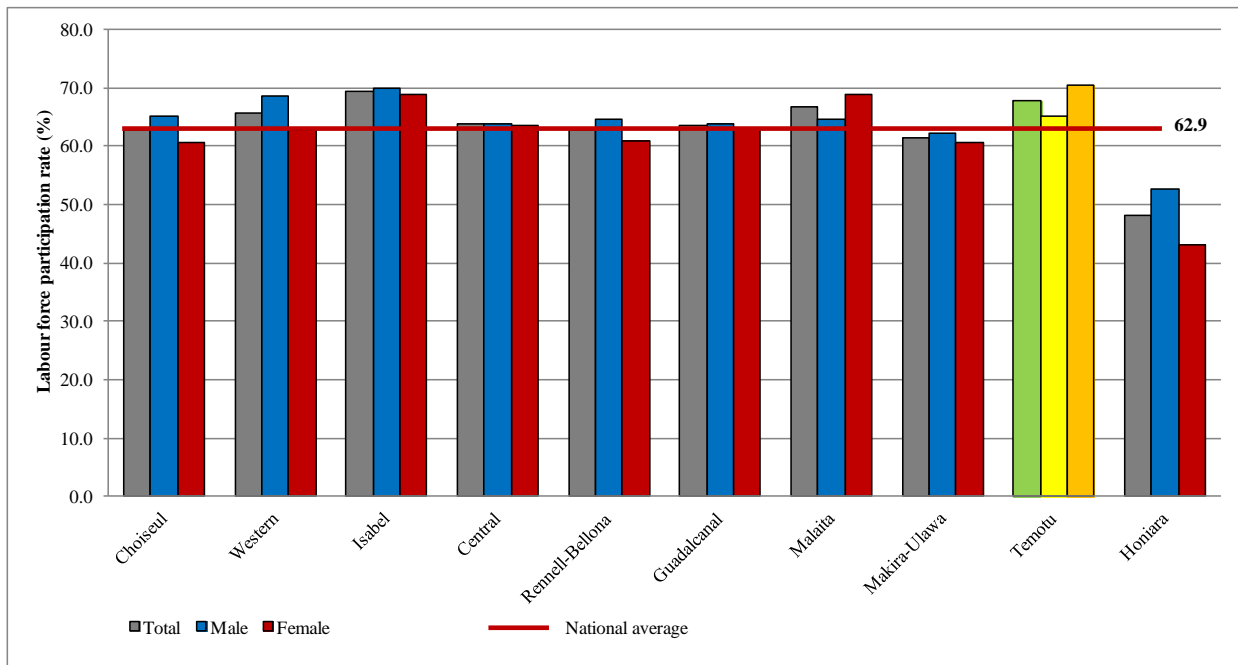
- did not work in the week prior to the census (other than those who had a job but were not at work during the reference week), but
- spent some time looking for work, and
- were available to work if a job was offered to them.

The unemployment rate was slightly higher for males (0.9%) than for females (0.4%), and it was the highest for the youth population aged 15-24 years (Figs.40-41).

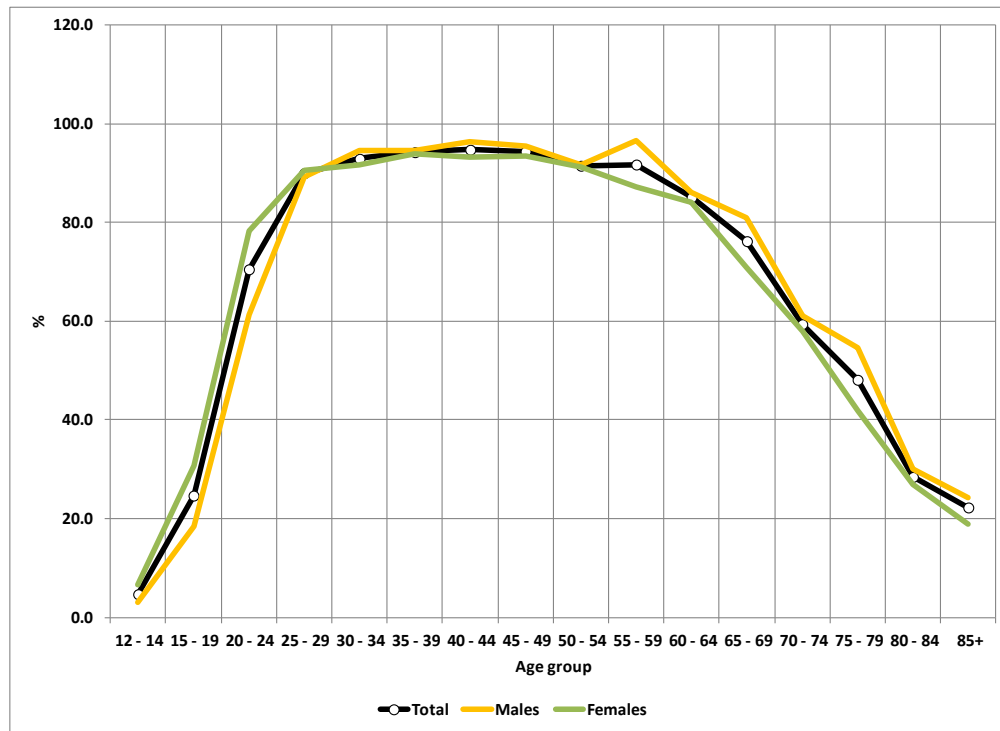
**Figure 35: Population 12 years and older by sex and labor market activity, Temotu: 2009**



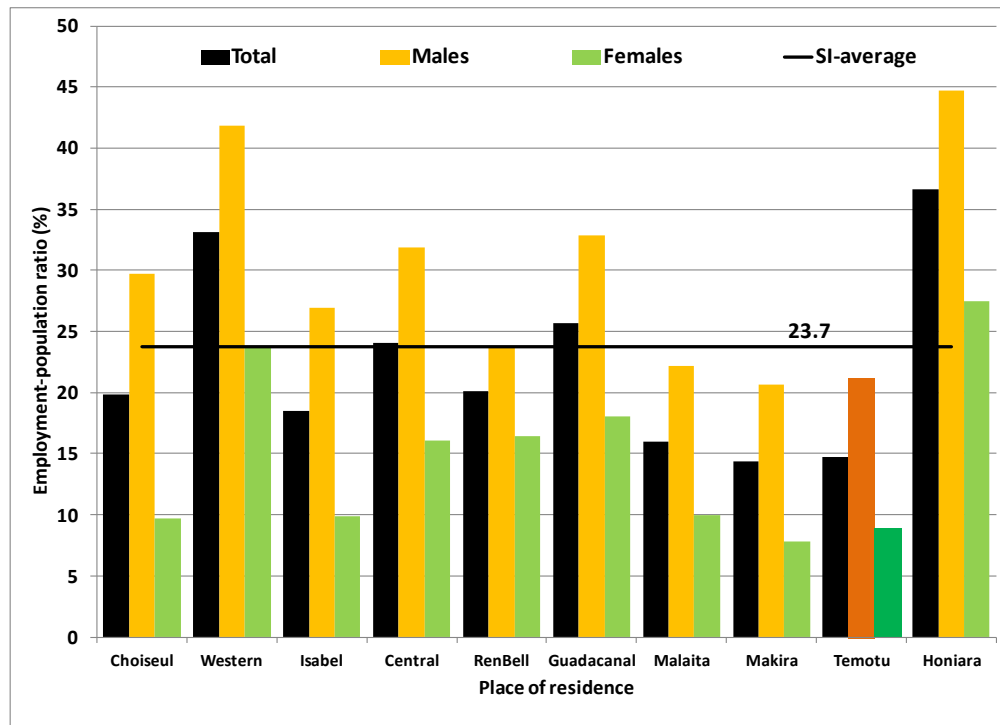
**Figure 36: Population 12 years and older by sex, labor force participation rate and province, Solomon Islands: 2009**



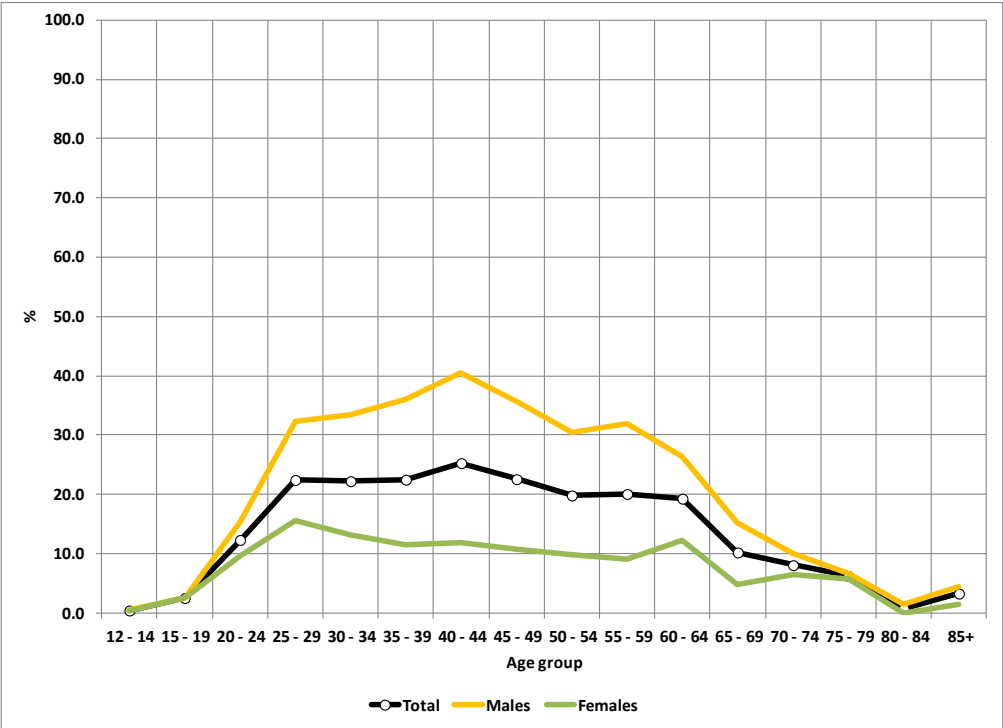
**Figure 37: Population 12 years and older by age and sex and labor force participation rate, Temotu: 2009**



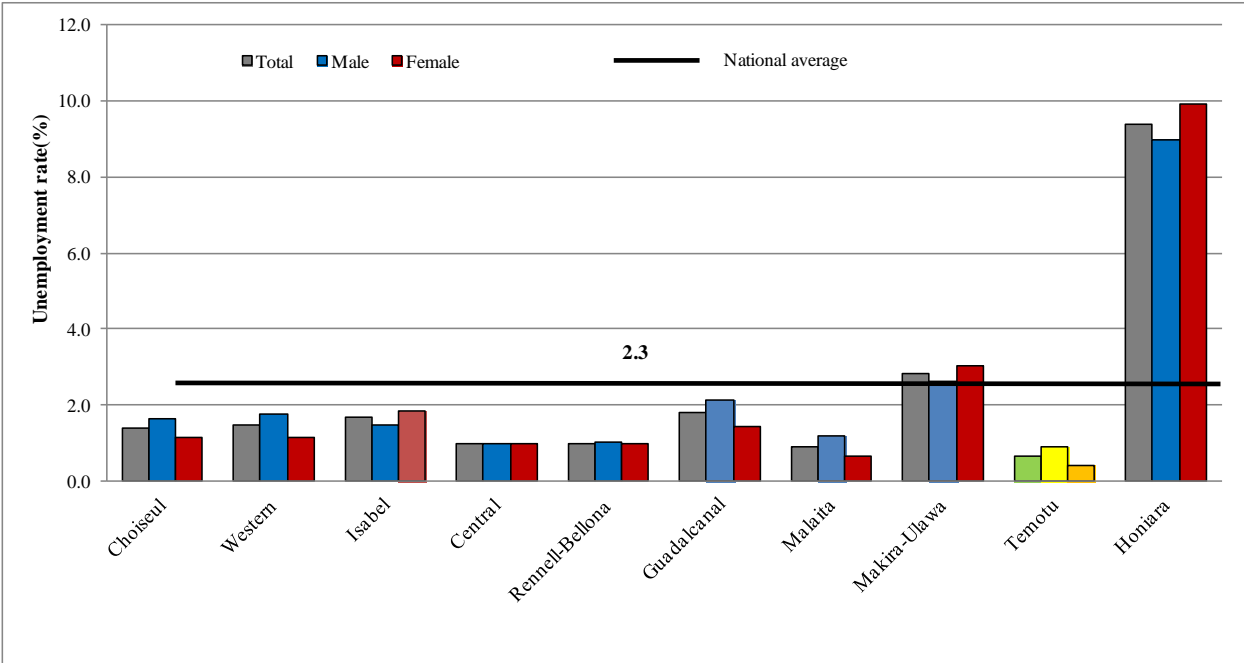
**Figure 38: Population 12 years and older by sex, employment-population ratio and province, Solomon Islands: 2009**



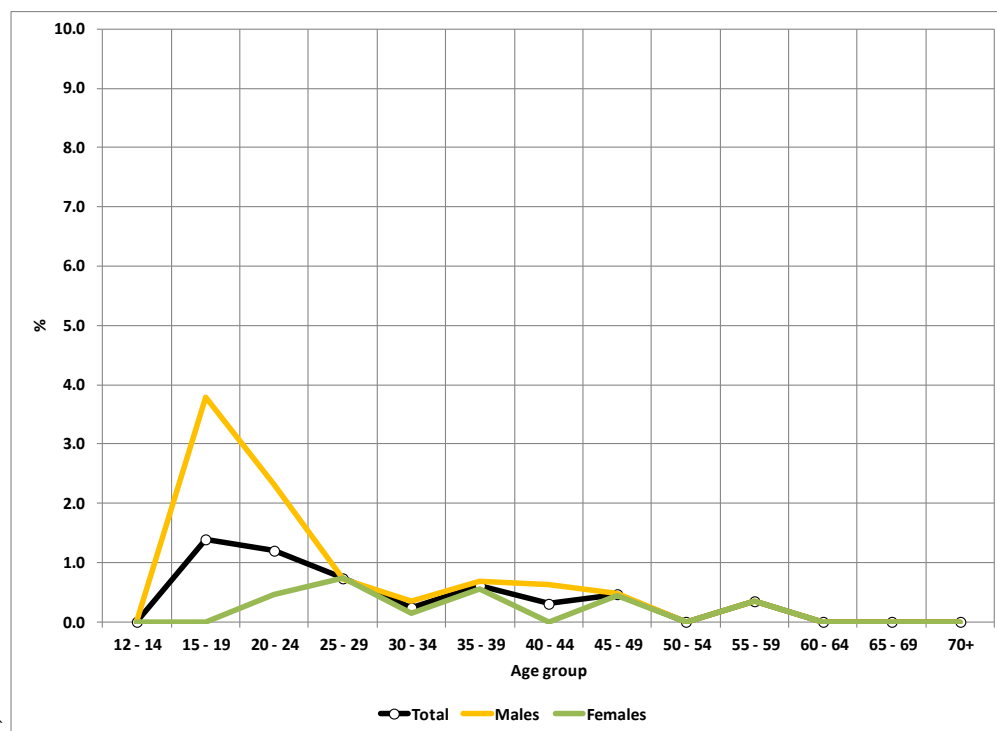
**Figure 39: Population 12 years and older by age and sex and employment-population ratio, Temotu: 2009**



**Figure 40: Population 12 years and older by sex, unemployment rate and province, Solomon Islands: 2009**



**Figure 41: Population 12 years and older by age and sex and unemployment rate, Temotu: 2009**



## 5. HOUSEHOLD AND HOUSING

### 5.1 Number and size of households

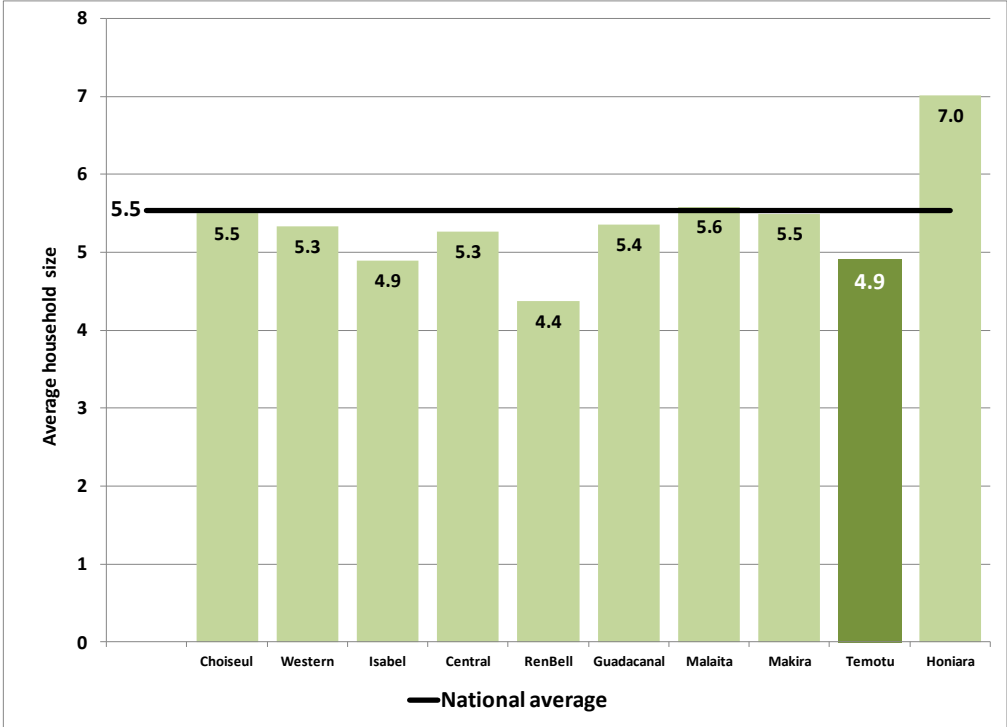
In 2009, 4,331 households were counted; 4,303 private households and 28 non-private dwellings (institutions). The number of private households in 1999 was 3,335.

The overall average household size, the number of people per household, decreased from 5.5 to 4.9 people per household between 1999 and 2009. The average household size by ward is shown in Table 9, and a comparison by province is shown in Figure 42.

**Table 9: Number of private households, number of people living in private households, and average household size, Temotu: 2009**

Province/Ward	Number of private households	Number of people in private households			Average household size, 2009
		Total	Males	Females	
<b>Temotu province</b>	<b>4,303</b>	<b>21,104</b>	<b>10,310</b>	<b>10,794</b>	<b>4.9</b>
Fenualoa	279	1,301	617	684	4.7
Polynesian Outer Islands	90	353	165	188	3.9
Nipua/Nopoli	173	880	422	458	5.1
Lipe/Temua	158	793	367	426	5.0
Manuopo	209	1,028	495	533	4.9
Nenumpo	250	1,166	553	613	4.7
Nevenema	212	947	460	487	4.5
Luva Station	421	2,215	1,083	1,132	5.3
Graciosa Bay	254	1,197	592	605	4.7
Nea/Noole	382	1,746	850	896	4.6
North East Santa Cruz	349	1,811	918	893	5.2
Nanggu/Lord Howe	339	1,852	949	903	5.5
Duff Islands	126	511	262	249	4.1
Utupua	232	1,168	586	582	5.0
Vanikoro	266	1,293	625	668	4.9
Tikopia	262	1,285	604	681	4.9
Neo	301	1,558	762	796	5.2

**Figure 42: Average household size (number of people per household) by province, Solomon Islands: 2009**



## 5.2 Household characteristics

In 2009, 58% of the **main source of household income** was from the sale of fish, crops or handicrafts. Another 14% of the main household income was from wages or salaries, 4% from own business activities, 3% from receiving remittances, and 17% of household's main source of income was from other sources. Four percent of all households recorded that they had no income (Fig.43).

About 15% of all households received **remittances** during the 12 months before the census. Eight percent of all households received less than SI\$500, 3% received between SI\$500 and SI\$999, and 2% received between SI\$1,000-1,499 and another 1% received more than SI\$1,500 (Fig.44).

In 2009, only 3% of households were not involved in **growing any crops**. Most households (68%) grew crops for the purpose of own consumption (subsistence) as well as sale, and 29% grew crops solely for own consumption. Less than 1% of households grew crops for the sole purpose of selling it (Fig.45). From those households that were involved in growing crops, most grew vegetables and food crops (88%), followed by betel nut (67%), coconut/copra (42%), one in three households grew tobacco, and 30% produced timber (Fig.46).

Overall 83% of all households in Temotu raised **livestock**; 70% raised pigs and 59% raised poultry. Only a very small number of households raised goats or horses. The total count of livestock in Temotu is shown in Table 10.

**Table 10: Total number of livestock, Temotu: 2009**

Cows	Pigs	Goats	Horses	Poultry
2,924	9,356	1,098	80	22,491

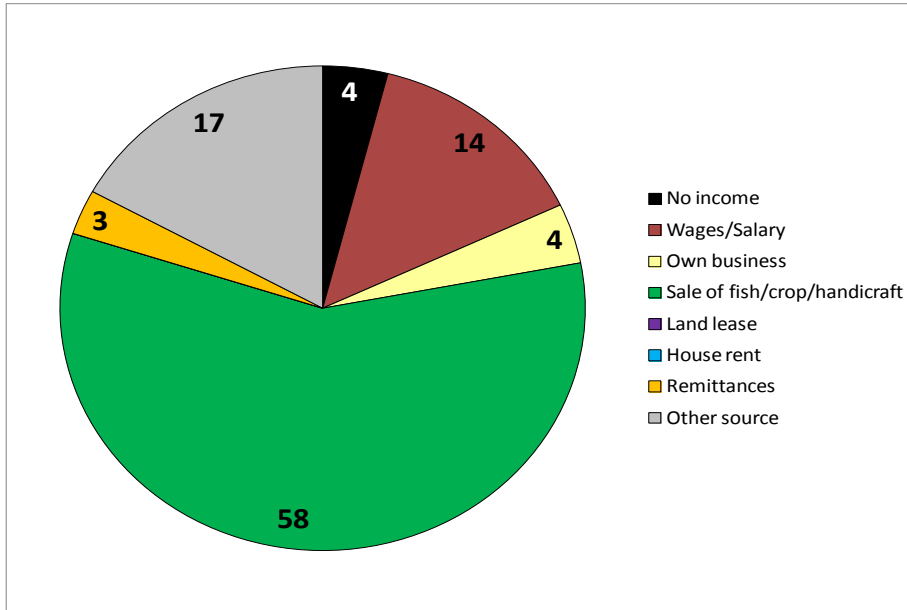
The following section provides a summary on the number/proportion of households involved in **fishing activities**, and whether it was mainly for own consumption (subsistence), for sale, or both. The census question did not distinguish between fresh water and marine fishing activities.

The data show that 85% of all households were engaged in fishing activities; 39% did this for own consumption only (subsistence), and 46% fished for personal consumption and the sale of their catch. Less than 1% of households fished for the sole purpose of selling their catch (Fig.47).

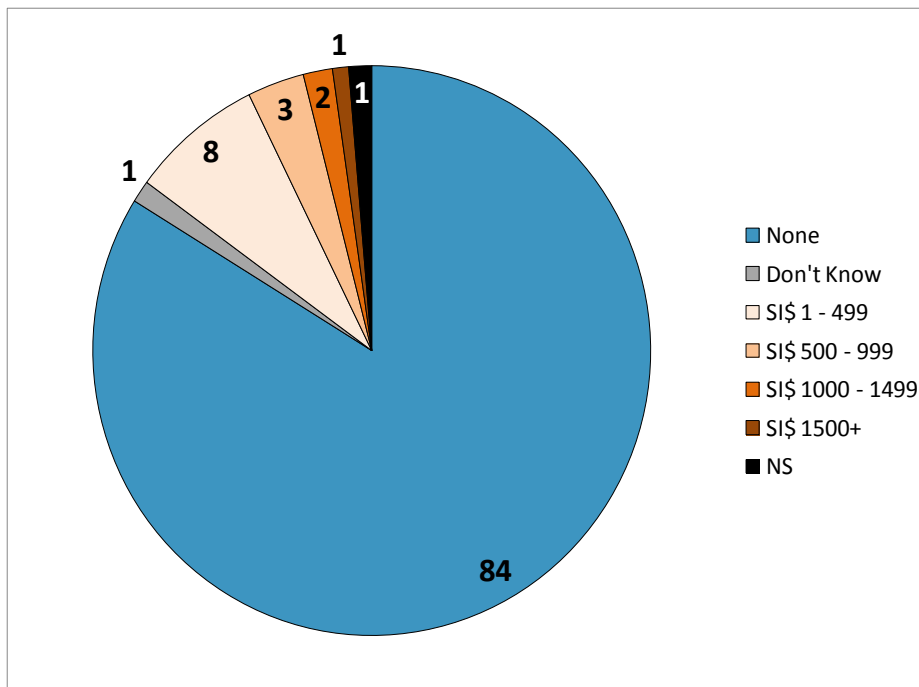
Please note that it is not possible to extract the number or volume of fish or shellfish consumed from the 2009 census data. Rather it is the number and proportion of households involved with **fish consumption**, and the type of fish that is consumed (bought or caught) that was collected.

The majority of households that consumed fish, caught or bought reef fish (92%), another 56% consumed tuna, 43% bought or caught shellfish, 10% freshwater fish, and another 25% consumed other types of fish or shellfish (Fig.48).

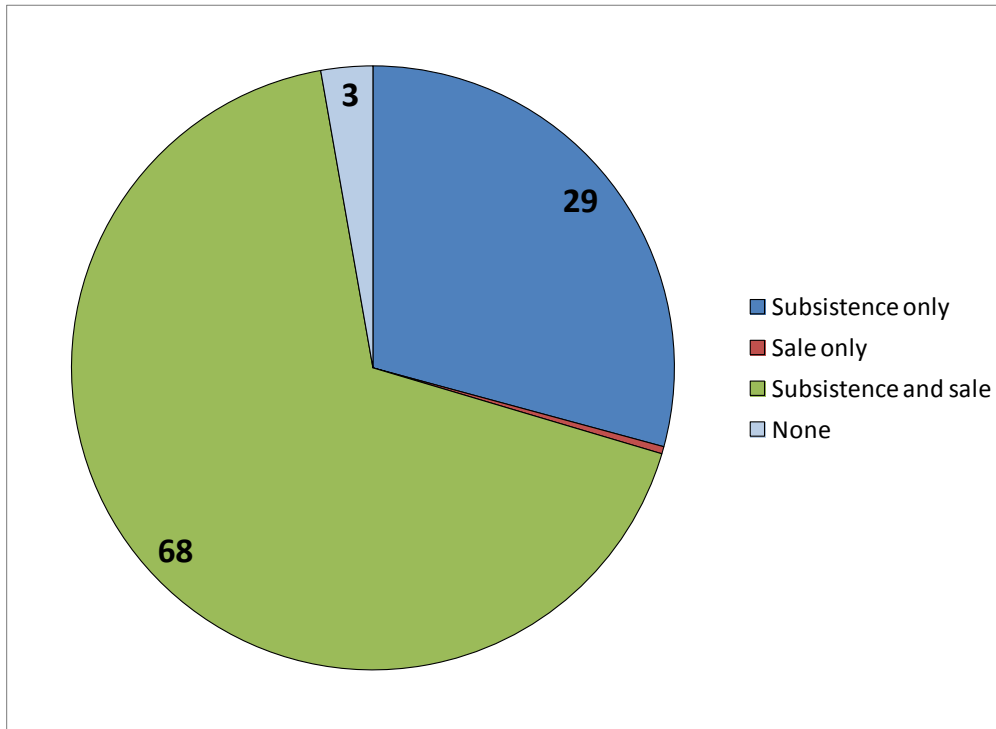
**Figure 43: Private households by main source of household income (%), Temotu: 2009**



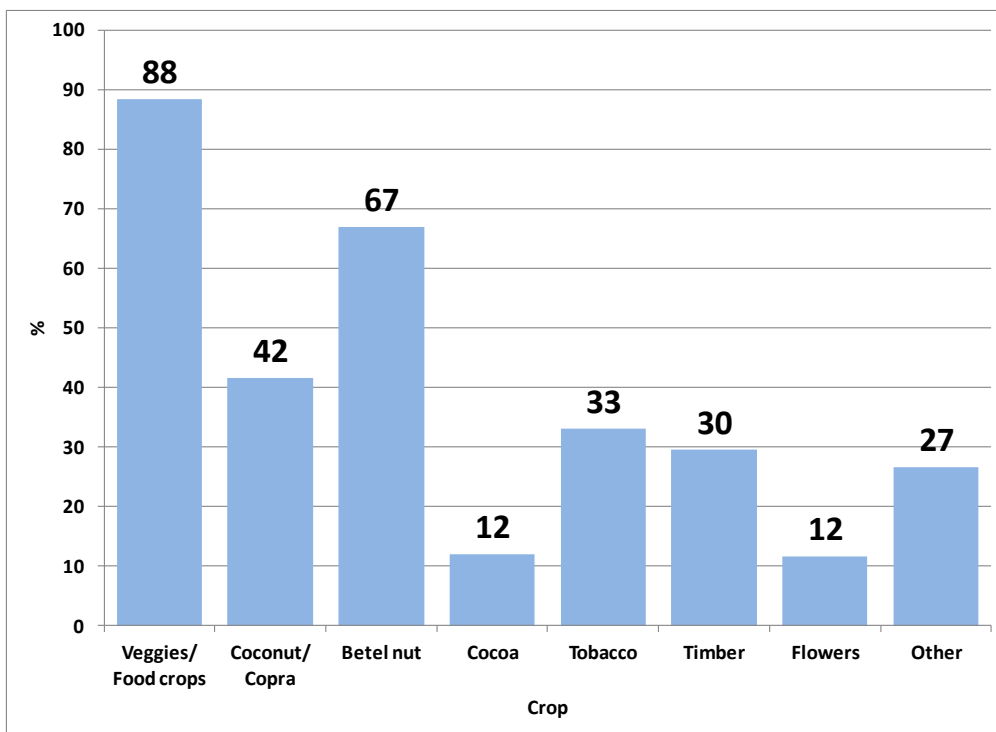
**Figure 44: Proportion of households by amount of annual remittances received in SI\$ (%), Temotu: 2009**



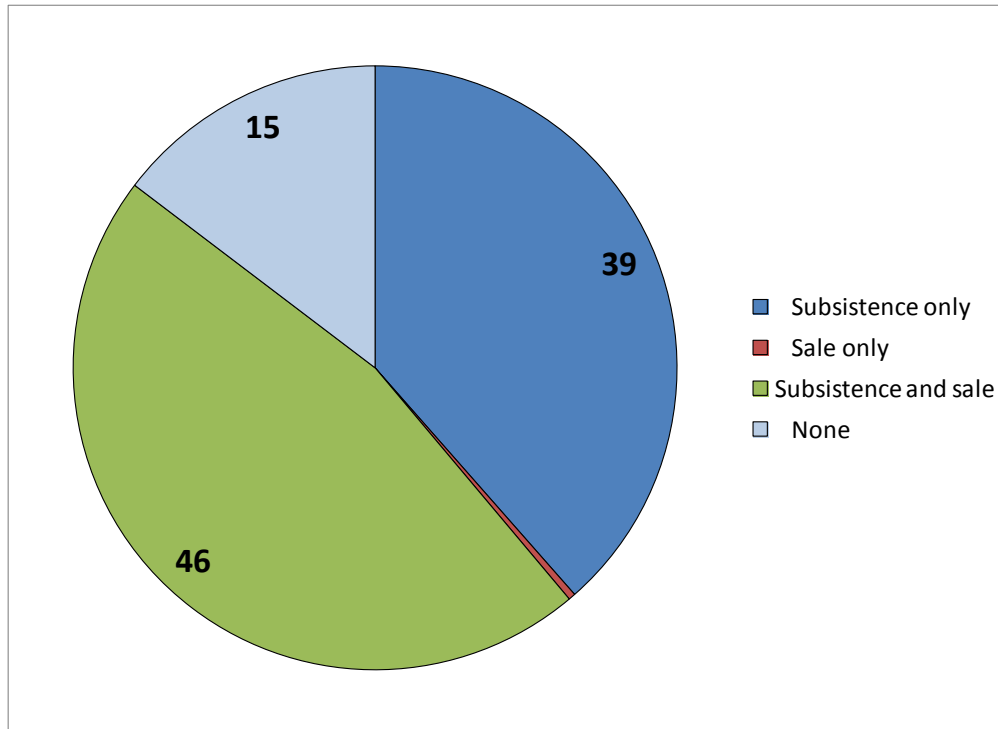
**Figure 45: Proportion of private households growing crops by purpose of growing crops, Temotu: 2009**



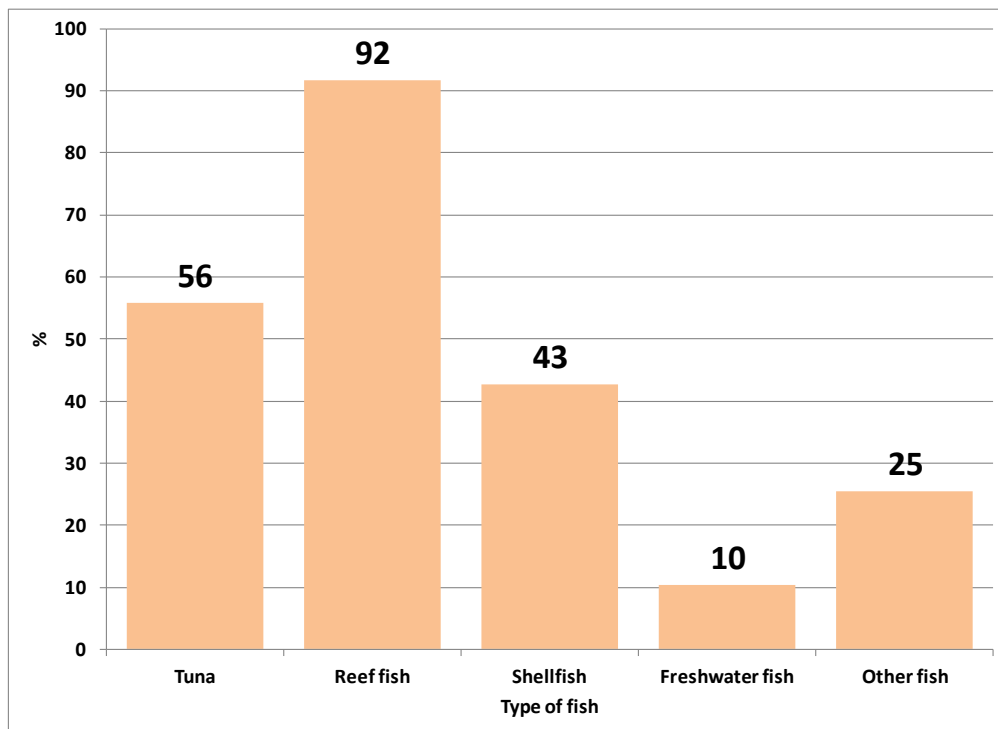
**Figure 46: Proportion of private households by type of crops grown, Temotu: 2009**



**Figure 47: Proportion of private households involved in fishing by purpose of fishing, Temotu: 2009**



**Figure 48: Proportion of households by type of fish or shellfish consumed (bought or caught), Temotu: 2009**



## 5.3 Housing

### 5.3.1 Water, sanitation, and energy

The general access of the population to water, sanitation, electricity and other basic amenities are an important measure of the country's development. Improving the quality and sustainability of electricity and water supply and of sanitation are very essential for social and economic growth, and employment creation.

The distribution of dwellings by main source of **drinking water** is displayed in Figure 49. It shows that 38% of dwellings were connected to a communal standpipe, followed by 24% who used a communal tank, and an additional 10% used a household tank. Eight percent used a river or stream as their source of drinking water, and another 8% used a well; 6% an unprotected well, and 2% a protected well.

The main **source of energy for lighting** was a kerosene lamp used by 80% of all households, 12% received their energy from using solar panels, and a mere 3% of all households were connected to the electricity main grid (Fig.50).

More than 90% of all households did not have access to a **toilet facility**, meaning neither a flush toilet, or water sealed toilet, or a pit latrine. A water sealed toilet was used by 4% of all households, and a flush toilet was used by 3% (Fig.51).

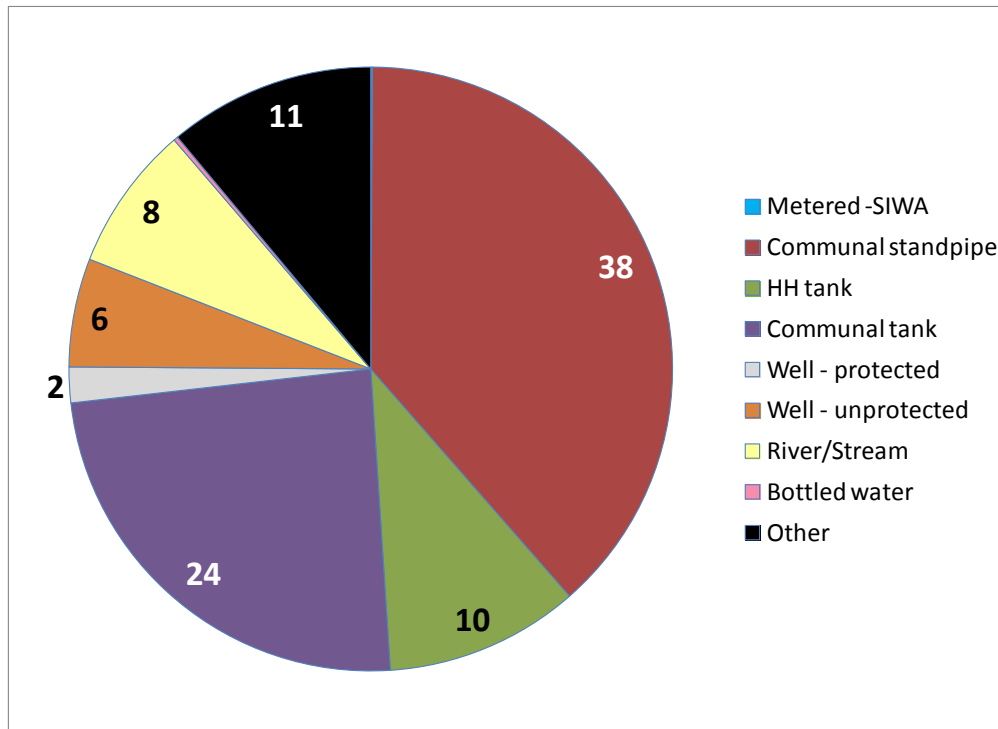
The sea was used by 57% of all households as their main means for **waste disposal**, followed by using the backyard (22%). Fourteen percent burned their rubbish (Fig.52).

### 5.3.2 Amenities and capital goods

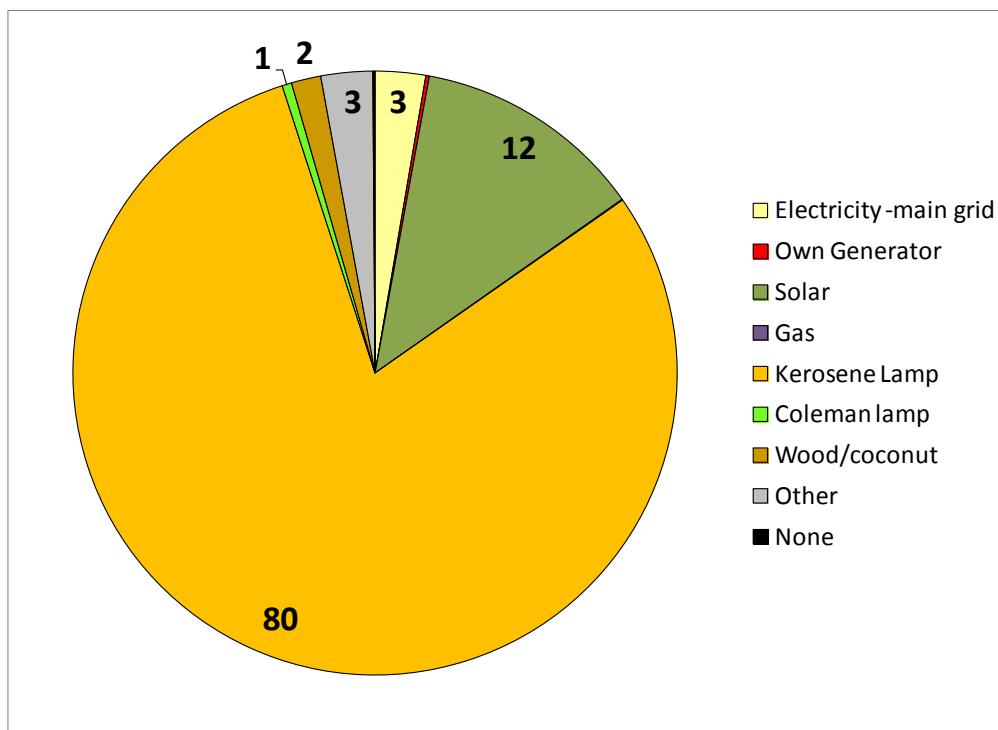
Figure 53 shows the proportion of households by availability of various **household items**. The respective items have to be in working order, and exclude any items that were broken, borrowed or rented. The graph therefore shows the percentage of households that own at least one item that is in working order.

**Insecticide treated bednets** were available to 80% of all households, a **canoe** was owned by 48%, a **radio** was available to 18% of all households, and only 14% owned a **mobile phone**.

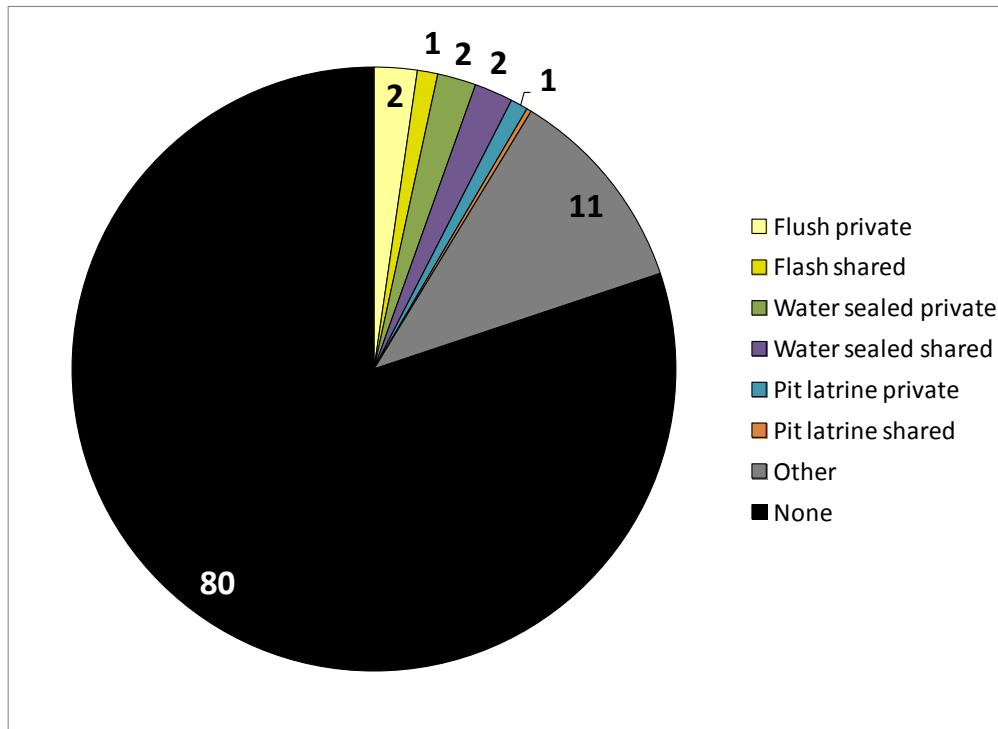
**Figure 49: Private households by main source of drinking water (%), Temotu: 2009**



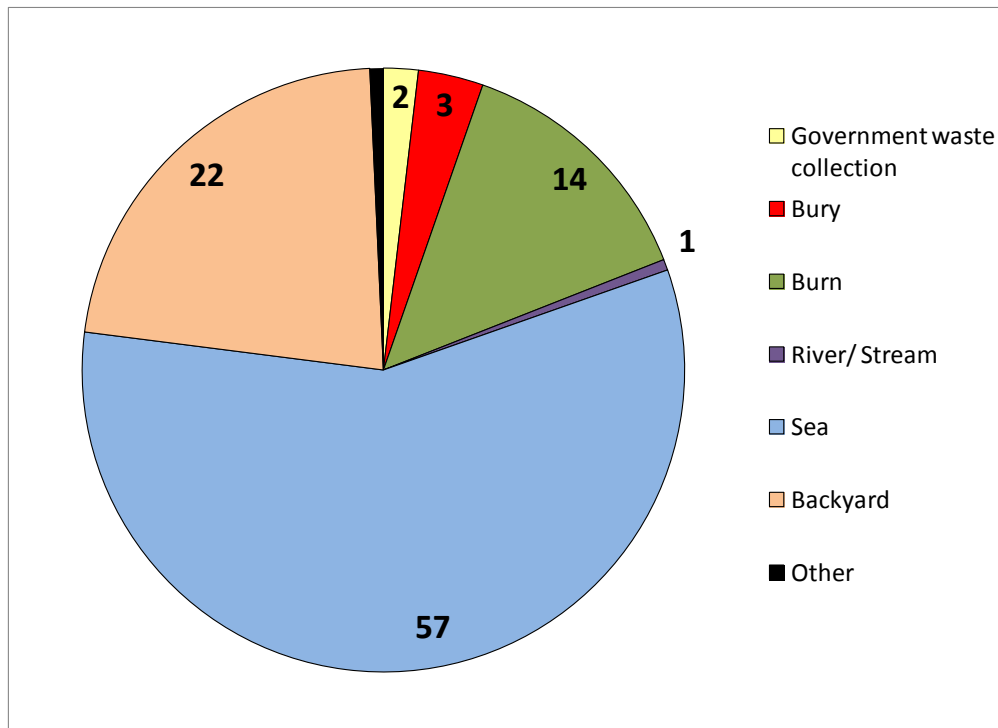
**Figure 50: Private households by main source of lighting (%), Temotu: 2009**



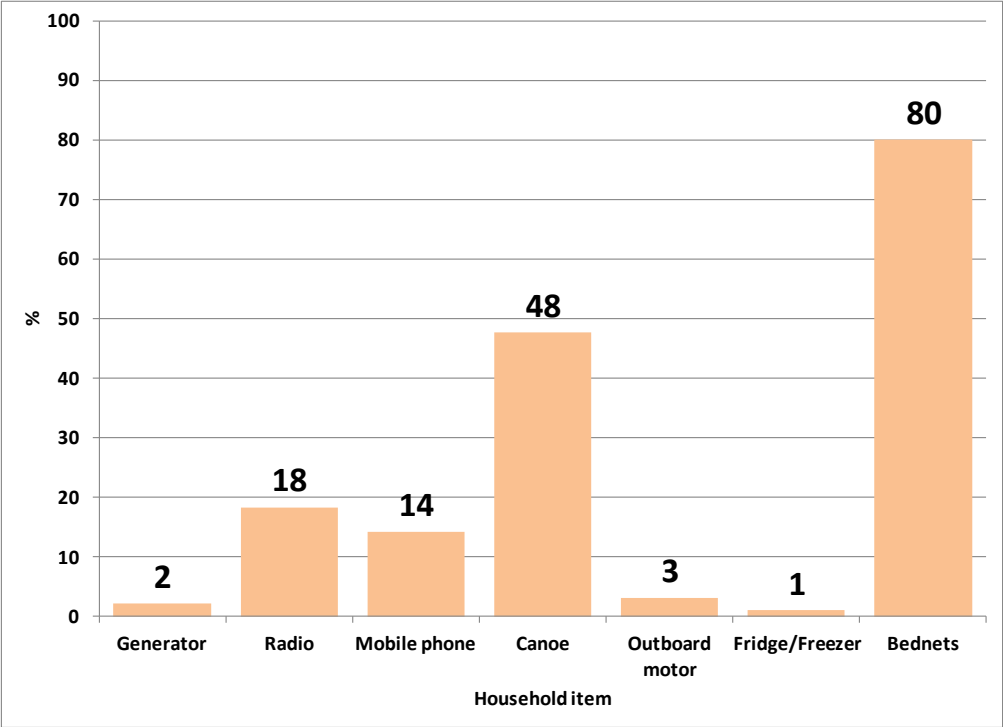
**Figure 51: Private households by main type of toilet facility (%), Temotu: 2009**



**Figure 52: Private households by main mode of waste disposal (%), Temotu: 2009**



**Figure 53: Private households by availability of various household items (%), Temotu: 2009**



## 6. POPULATION PROJECTIONS

### 6.1 Method and assumptions

The population projections presented here are an extract from the 2009 Solomon Islands National Census report-Volume 2, and a detailed description about projection methodology and assumptions can be found there.

The projections are based on the 2009 census age and sex distribution, adjusted to mid-year 2009. The population is further adjusted for suspected under enumeration of 8.3% which includes particularly the age groups 15-29 of males, children younger than 10 years, and a general undercount of females.

Furthermore, information on recent levels and patterns of fertility, mortality, and migration based on the 2009 census results was used.

The *cohort-component method* was applied to compute the projections presented in this report. This procedure simulates population changes as a result of changes in the levels of fertility, mortality and migration. Based on past information and current levels, assumptions are made about future trends of these levels. The assumed rates are applied to the age and sex structure of the population in a simulation that takes into account:

- **Mortality**: the rate at which people die is related to their sex and age,
- **Fertility**: women have children related to their age, and
- **Migration**: some people arrive and others leave the province.

In general the assumptions made are as follows.

Fertility: The current estimated level of fertility (TFR) decreases gradually to a TFR of 1.9. This level will be reached based on the past fertility trend.

Mortality: It is thought that under normal circumstances (meaning in the absence of catastrophes such as wars, epidemics and major natural disasters), the general health situation and mortality levels will continuously improve throughout the projection period. Therefore it is assumed that the current estimated level of life expectancy at birth ( $e_0$ ) as described in section 3.2 will gradually increase according to the United Nations working models of mortality improvement.

Migration: The level of migration was estimated as the difference between the current provincial population growth rate and its natural growth rate. Making assumptions about future migration developments is difficult if not impossible to make, because many of the social and economic parameters shaping migration patterns depend on countries'/provincials' overall social,

economic, political, and environmental developments. All of these factors fluctuate widely and are hard to predict. Therefore, it is assumed that the current estimated level will stay constant throughout the projection period.

## 6.2 Projection results

Figures 54 and 55 illustrate the impact of the assumptions made on the future size and age structure of the provincial population.

The black line in Figure 54 shows the enumerated population of the last 5 population censuses from 1970 to 2009. The red line shows the projected population size based on the assumptions made as described above.

The population will increase from its 2009 level of 23 thousand people to 25 thousand people in 2015. It will then gradually further increase to 35 thousand in the year 2050.

The population size is estimated to be almost 24 thousand people in mid-year 2012.

**Figure 54: Past and projected population size, Temotu: 1970-2050**

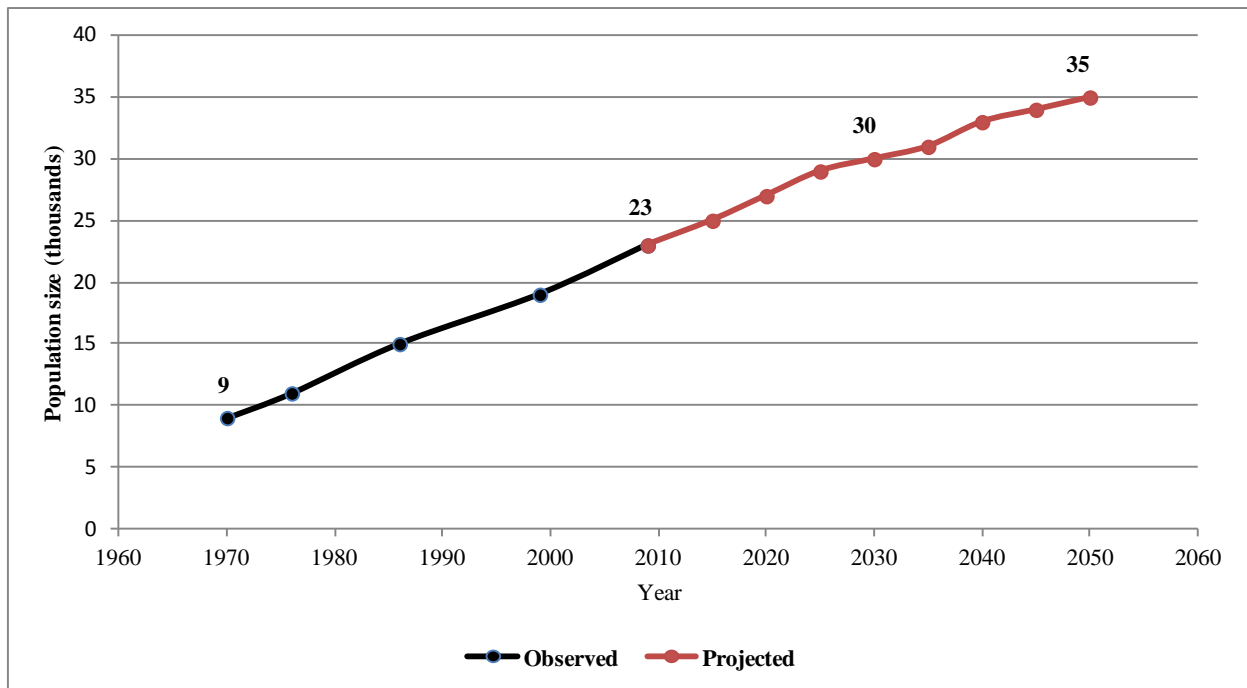
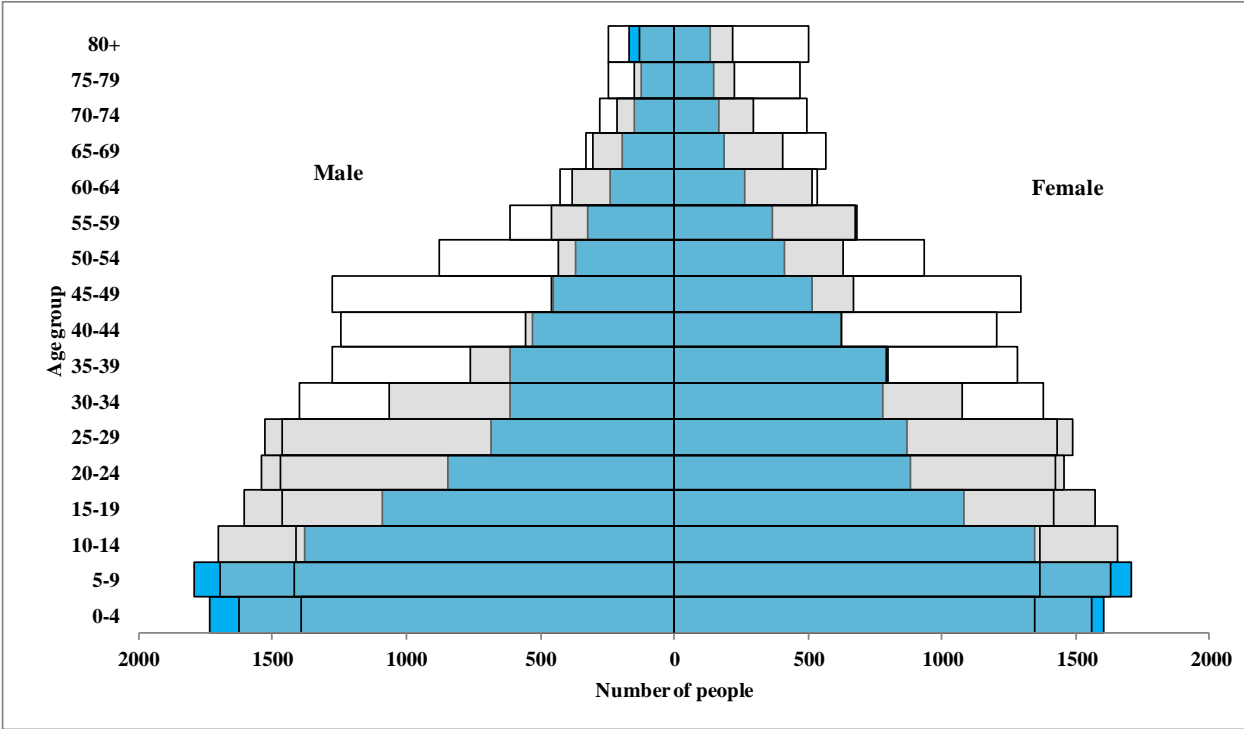


Figure 55 show the population pyramids of the years 2012 (in blue), 2030 (in grey), and 2050 (outlined). The future population structures are deviating more and more from that of a classical pyramid shape (see Fig.7). The younger age groups will ‘straighten’ while the older age groups are widening. The ‘straightening’ – or in some cases they even narrow - is a result of the anticipated decreasing fertility rates. The widening of the older age groups is the result of the young population of today growing older over time.

All in all, the populations will be ageing, with a lower proportion of young people, and higher proportions of older people.

**Figure 55: Population pyramid, Temotu: 2010, 2030, and 2050**



Blue =2010; Gray = 2030, and Outlined =2050

## GLOSSARY

<b>Indicator</b>	<b>Definition</b>
Adult mortality (45q15)	Probability of death between the ages of 15 years and 60 years
Age-dependency ratio	Number of people in the “dependent” age category (population <15 plus population 60+) per 100 in the “economically productive ages” 15–59 years
Average age at (first) marriage (SMAM)	Approximation of average age at marriage, based on proportion of population never married (single)
Balance equation	Population growth = births – deaths + net migration
Births — estimated number for 2009	Estimated age-specific fertility rates (ASFR) multiplied by enumerated number of women by age in 2009
Child-woman ratio (CWR)	Number of children under age 5 per 1,000 women aged 15-49
Child mortality rate (1q5)	The probability of dying between age 1 and age 5
Crude birth rate (CBR)	Estimated number of births per 1,000 population (7,335/234,023 X 1,000)
Crude death rate (CDR)	Estimated number of deaths per 1,000 population (1,260/234,023 X 1,000)
Crude net migration rate	Rate of growth minus rate of natural increase
Deaths — estimated number for 2009	Estimated age-specific death rates [m(x)] by sex (from life multiplied by enumerated population by age and sex in 2009)
Employment–population ratio	Proportion of employed people in cash work (by a given age and sex), as part of the corresponding total number of people of the same age and sex
General fertility rate	Annual number of births per 1,000 women of childbearing age (15-49)
Infant mortality rate (IMR)	Number of infant deaths (children younger than 1 year) per 1,000 births

Institutions	Boarding schools, prisons, hospitals, hotels/hostels/guesthouses
Intercensal period	Time period between two censuses
Labour force	People employed (cash work plus subsistence work) and unemployed (excludes those not seeking employment)
Labour force participation rate	Proportion of people in the labour force (by a given age and sex), as part of the corresponding total number of people of the same age and sex
Language ability	see Literacy rate
Life expectancy at birth	Number of years a newborn baby can expect to live on average
Life expectancy at age 20	Number of additional years a 20 year old can expect to live on average
LTR, lifetime risk of maternal death	The chance of a woman dying from maternal causes over the course of her 35-year reproductive life span = 35 x maternal mortality rate
Literacy rate	Proportion of the population aged 15 years and older or 15-24 years, who are able to read and write a simple sentence in any language
Maternal mortality rate	Number of maternal deaths per 1,000 women
Maternal mortality ratio	Number of maternal deaths per 100,000 live births
Mean age at childbearing	Average age of women when giving birth
Median age	The age at which exactly half the population is older and half is younger
Parity (average)	Average number of children per woman
PMFD, proportion of deaths due to maternal causes	Ratio between numbers of reported female deaths and maternal deaths.
Rate of growth (%)	Average annual growth rate during 1999–2009 $\ln(\text{TotPop2009}/\text{TotPop1999})/10 \times 100$

Rate of natural increase	Crude birth rate (CBR) minus crude death rate (CDR)
Sex ratio	Number of males per 100 females
Teenage fertility rate	Number of births by women aged 15–19 per 1,000
Total fertility rate (TFR)	Average number of children per woman
Under 5 mortality (q5)	The probability of dying between birth and age 5

## APPENDICES

### Appendix 1: Population by age and sex, Temotu: 1999 and 2009

1999				2009			
Age	Males	Females	Total	Age	Males	Females	Total
<b>Population by 5-year age groups and sex</b>							
0-4	1,350	1,256	2,606	0-4	1,562	1,358	2,920
5-9	1,306	1,273	2,579	5-9	1,621	1,475	3,096
10-14	1,367	1,223	2,590	10-14	1,313	1,256	2,569
15-19	1,069	1,119	2,188	15-19	1,002	1,035	2,037
20-24	675	932	1,607	20-24	702	834	1,536
25-29	515	850	1,365	25-29	623	893	1,516
30-34	485	621	1,106	30-34	602	748	1,350
35-39	462	575	1,037	35-39	623	761	1,384
40-44	368	410	778	40-44	490	551	1,041
45-49	334	378	712	45-49	432	477	909
50-54	258	290	548	50-54	351	376	727
55-59	226	257	483	55-59	300	328	628
60-64	182	179	361	60-64	216	220	436
65-69	184	164	348	65-69	184	169	353
70-74	139	106	245	70-74	141	157	298
75-79	109	72	181	75-79	119	122	241
80+	117	61	178	80+	185	136	321
<b>Total</b>	<b>9,146</b>	<b>9,766</b>	<b>18,912</b>	<b>Total</b>	<b>10,466</b>	<b>10,896</b>	<b>21,362</b>
<b>Population by broad age groups (in numbers)</b>							
<b>0-14</b>	4,023	3,752	7,775	<b>0-14</b>	4,496	4,089	8,585
<b>15-24</b>	1,744	2,051	3,795	<b>15-24</b>	1,704	1,869	3,573
<b>25-59</b>	2,648	3,381	6,029	<b>25-59</b>	3,421	4,134	7,555
<b>25-64</b>	2,830	3,560	6,390	<b>25-64</b>	3,637	4,354	7,991
<b>60+</b>	731	582	1,313	<b>60+</b>	845	804	1,649
<b>65+</b>	549	403	952	<b>65+</b>	629	584	1,213
<b>Population by broad age groups (in percentages)</b>							
<b>0-14</b>	44	38	41	<b>0-14</b>	43	38	40
<b>15-24</b>	19	21	20	<b>15-24</b>	16	17	17
<b>25-59</b>	29	35	32	<b>25-59</b>	33	38	35
<b>25-64</b>	31	36	34	<b>25-64</b>	35	40	37
<b>60+</b>	8	6	7	<b>60+</b>	8	7	8
<b>65+</b>	6	4	5	<b>65+</b>	6	5	6
<b>Age dependency ratio</b>							
<b>15-59</b>	<b>93</b>			<b>15-59</b>	<b>92</b>		
<b>15-64</b>	<b>86</b>			<b>15-64</b>	<b>85</b>		
<b>Sex ratio (males per 100 females)</b>							
<b>94</b>				<b>96</b>			
<b>Median age (years)</b>							
<b>Total</b>	<b>17.6</b>	<b>20.1</b>	<b>18.8</b>	<b>Total</b>	<b>18.7</b>	<b>21.9</b>	<b>20.2</b>
<b>Population change 1999-2009</b>							
<b>Total difference</b>					Males	Females	<b>Total</b>
					1,320	1,130	<b>2,450</b>
<b>Average annual change (in numbers)</b>					132	113	<b>245</b>
<b>Percentage difference (%)</b>					14.4	11.6	<b>13.0</b>
<b>Average annual growth rate (%)</b>					1.3	1.1	<b>1.2</b>

**Appendix 2: Population 12 years and older by sex and labor force status, Temotu: 2009**

<b>Labor market activity</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>
<b>Labour force</b>			
Employer	10	8	2
Self-employed *	1,113	718	395
Employee for wage/salary	978	705	273
Unpaid worker	4,302	1,388	2,914
Subsistence work **	3,222	2,613	1,691
Unemployed	62	40	18
<b>Total</b>	<b>9,677</b>	<b>5,464</b>	<b>5,291</b>
<b>Non Labour Force</b>			
Full time student	3,116	1,699	1,417
Home duties	93	19	74
Retired/Old age	504	232	272
Disabled	128	73	55
Other	732	327	405
<b>Total</b>	<b>4,573</b>	<b>2,350</b>	<b>2,223</b>
<b>Total</b>	<b>14,250</b>	<b>7,814</b>	<b>7,514</b>

\*Also include those who produce goods for sale

\*\*Include those who produce goods for own consumption