



Pacific Community Communauté du Pacifique

VANUATU 2020 NATIONAL POPULATION AND HOUSING CENSUS

ANALYTICAL REPORT VOLUME 2





VANUATU 2020 NATIONAL POPULATION AND HOUSING CENSUS

ANALYTICAL REPORT VOLUME 2

Vanuatu Bureau of Statistics and the Pacific Community Ralph Hakkert and Scott Pontifex



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ABBREVIATIONS

- AC Area Council
- API Annual parasite index
- ASDR Age-specific death rate
- ASFR Age-specific fertility rate
- CBR Crude birth ratio
- CDR Crude death ratio
- ECCE Early childhood care and education
- EPR Employment-population ratio
- GFR General fertility rate
- GER Gross enrolment ratio
- GGB Generalised growth balance
- HH Household
- ICPD International Conference on Population and Development
- IMR Infant mortality rate
- LFPR Labour force participation rate
- MAC Mean age at childbearing
- MoET Ministry of Education and Training
- SEG Synthetic extinct generations
- SMAM Singulate mean age at marriage
- TC Tropical cyclone
- TFR Total fertility rate

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SUMMARY OF MAIN INDICATORS

Indicator	Vanuatu	Urban	Rural	Torba	Sanma	Penama	Malampa	Shefa	Tafea
Total population	300,019	66,753	233,266	11,330	60,884	35,607	42,499	103,987	45,714
Males	151,597	33,606	117,991	5,711	31,218	18,033	21,495	52,215	22,862
Females	148,422	33,147	115,275	5,619	29,602	17,574	21,004	51,772	22,851
Population living in private HHs	293,963	65,867	228,095	11,215	59,652	34,123	41,506	102,569	44,899
Males	148,354	32,998	115,356	5645	30,573	17,283	20,969	51,686	22,468
Females	145,609	32,870	112,739	5,570	29,079	16,840	20,537	51,152	22,431
Population 15+ years living in private HHs	179,302	44,065	135,237	6,610	36,190	19,755	25,011	66,894	24,941
Males	88,907	21,726	67,181	3,306	18,213	9,841	12,502	32,985	12,060
Females	90,395	22,339	68,056	3,305	17,877	9,914	12,509	33,909	12,881
Average annual population growth 2009–2020	2.3	1.4	2.6	1.8	2.6	1.3	1.3	2.6	3.1
Population density (per km ²)	24	1,376	19	13	30	30	15	89	28
Urbanisation		1,570	12	15	50	50	15		20
Urban population	66,753	_	_	_	17,719	-	_	49,034	-
Percentage urban	22.2	_	_	_	29.1	_	_	47.2	_
Annual urban growth (%)	1.4		_	_	2.7	_	_	1.0	_
Households (HH)	1.1				2.1			1.0	
Number of private HHs	63,365	14,702	48,663	2,392	12,890	7,863	9,715	22,266	8,239
Average HH size	4.6	4.5	4.7	4.7	4.6	4.3	4.3	4.6	5.4
Population structure	4.0	т.Ј	т./	т./	0	т.Ј	т.Ј		5.7
Number of children (< 15)	115,767	21,849	93,918	4,644	23,944	14,587	16,728	35,785	20,078
Youth population (15–24)	54,721	12,956	41,765	1,890	11,292	6,481	7,087	19,434	8,537
Population (25–59)	110,206	28,353	81,854	4,061	22,071	12,004	15,175	42,498	14,401
Older population (60+)	19,325	3,595	15,729	735	3,577	2,535	3,509	6,270	2,698
	19,525	23	15,729	19	20	2,555		23	
Median age	75	23 56	81	84	79	84	20 82	23 64	17 92
Dependency ratio (15–64) Sex ratio					105				92 100
	102	101	102	102	105	103	102	101	100
Singulate mean age at marriage (SMAM)	25.5	26.7	25.1	23.9	24.4	25.4	25.5	26.6	24.4
Men	25.5	26.7	25.1		24.4	25.4	25.5	26.6	24.4
Women	22.1	23.8	21.5	21.0	21.0	21.6	21.7	23.4	21.2
Labour force									
Employed population (including subsistence and unpaid work)	78,729	21,567	57,162	2,524	20,209	8,301	11,772	30,797	5,127
Males	43,099	12,109	30,990	1,392	11,265	4,475	6,220	16,941	2,807
Females	35,630	9,458	26,172	1,132	8,944	3,826	5,552	13,856	2,320
Subsistence workers	16,317	407	15,910	782	5,709	3,293	3,734	1,325	1,473
Males	8,323	177	8,146	406	2,883	1,770	1,891	647	728
Females	7,993	230	7,763	376	2,825	1,524	1,844	678	746
Unemployed	5,049	2,286	2,763	138	792	318	266	2,680	855
Males	2,647	1,196	1,451	66	384	165	158	1,429	445
Females	2,402	1,090	1,312	72	409	152	108	1,252	410
Labour force participation rate	46.7	54.1	44.3	40.3	58.0	43.6	48.1	50.0	24.0
Males	51.5	61.2	48.3	44.1	64.0	47.1	51.0	55.7	27.0
Females	42.1	47.2	40.4	36.4	52.3	40.1	45.2	44.6	21.2
Employment–population ratio	43.9	48.9	42.3	38.2	55.8	42.0	47.1	46.0	20.6
Males	48.5	55.7	46.1	42.1	61.9	45.5	49.8	51.4	23.3

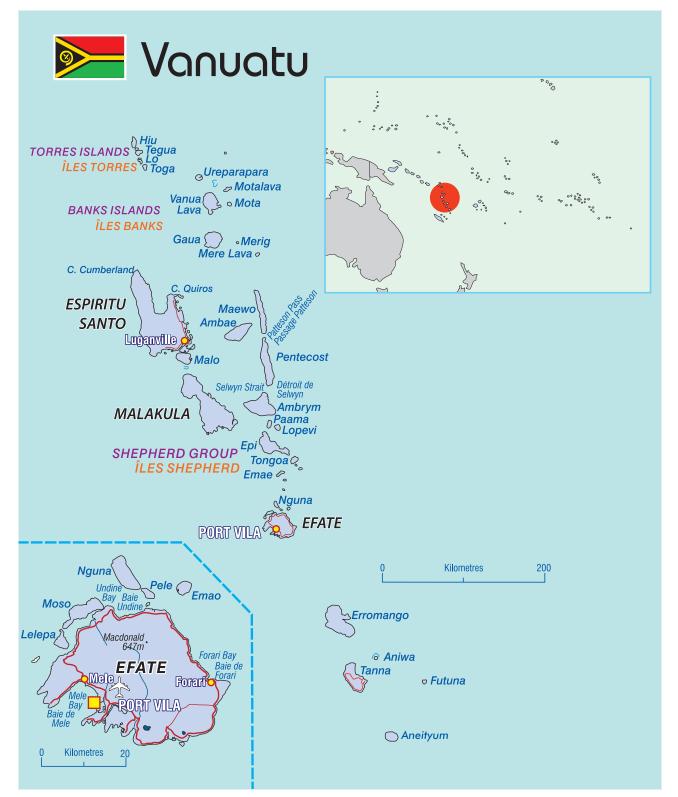
Indicator	Vanuatu	Urban	Rural	Torba	Sanma	Penama	Malampa	Shefa	Tafea
Females	39.4	42.3	38.5	34.3	50.0	38.6	44.4	40.9	18.0
Unemployment rate (%)	6.0	9.6	4.6	5.2	3.8	3.7	2.2	8.0	14.3
Males	5.8	9.0	4.5	4.5	3.3	3.6	2.5	7.8	13.7
Females	6.3	10.3	4.8	6.0	4.4	3.8	1.9	8.3	15.0
Education			I			1	1		
School attendance rates aged 6–13 (%)	85.6	90.6	84.5	77.3	87.1	83.5	88.8	90.1	76.7
Males	85.1	90.0	84.0	77.8	87.0	82.9	88.3	89.6	75.4
Females	86.1	91.2	85.0	76.8	87.2	84.1	89.3	90.6	78.0
Percentage of population aged 15+ with:									
No education (never attended school)	21.7	19.7	22.4	20.7	18.7	21.8	17.3	17.8	41.2
Males	20.8	19.4	21.3	19.0	18.2	19.8	16.5	17.6	39.4
Females	22.6	19.9	23.4	22.4	19.2	23.7	18.2	18.0	42.8
Primary education	46.2	30.5	51.2	58.5	49.3	55.4	58.5	38.6	38.9
Males	46.7	30.1	52.0	60.6	50.2	56.8	58.6	38.2	40.0
Females	45.7	31.0	50.5	56.3	48.4	53.9	58.5	39.0	37.8
Secondary education	26.9	38.5	23.1	18.7	27.8	21.0	21.2	34.3	18.0
Males	26.4	37.6	22.8	17.6	26.7	21.1	21.4	33.6	18.1
Females	27.4	39.5	23.4	19.8	29.0	20.9	21.1	35.1	17.8
Tertiary education	1.9	4.8	1.0	0.5	1.3	0.4	0.5	4.0	0.6
Males	2.3	5.7	1.2	0.6	1.6	0.5	0.6	4.6	0.8
Females	1.6	4.0	0.8	0.3	0.9	0.3	0.4	3.3	0.4
Vocational/Professional	3.0	6.3	1.9	1.1	2.5	1.0	2.0	5.1	1.1
Males	3.5	7.1	2.3	1.6	2.9	1.3	2.6	5.8	1.4
Females	2.5	5.5	1.5	0.6	2.1	0.8	1.4	4.5	0.7
Literacy rate (15+)	92.2	98.7	90.1	86.8	93.1	89.4	96.4	98.2	74.5
Males	93.1	98.8	91.2	87.6	93.5	90.7	97.0	98.3	77.4
Females	91.4	98.6	89.0	86.0	92.5	88.1	95.7	98.0	71.9
Literacy rate (15–24)	95.3	99.2	94.0	90.9	96.7	92.5	98.3	98.8	85.4
Males	94.8	99.0	93.5	89.6	96.3	92.0	98.4	98.4	84.4
Females	95.7	99.4	94.4	92.1	97.1	92.9	98.3	99.1	86.4
Literacy in English	76.9	89.5	72.8	73.9	76.1	67.2	74.0	89.1	56.4
Literacy in French	40.0	48.4	37.2	27.1	39.1	33.8	38.7	46.6	32.9
Literacy in Bislama	90.1	96.6	88.0	85.1	91.4	86.8	94.6	96.6	70.4
Literacy in Indigenous language	70.9	78.0	68.6	58.0	69.7	73.9	60.2	82.4	53.8
Literacy in other language	1.1	1.2	1.1	4.5	0.9	1.1	0.5	1.4	0.5
Internet use (% of population aged 5+)	26.2	48.3	19.7	14.3	25.0	14.3	19.1	41.3	11.0
Males	28.3	49.4	22.1	17.1	27.4	18.4	22.2	42.2	12.7
Females	24.1	47.2	17.2	11.5	22.5	10.2	16.0	40.3	9.4
Disability									
Percentage with severe or total visual disability	1.47	1.36	1.50	2.08	1.80	1.95	1.69	1.14	1.06
Males	1.62	1.55	1.64	2.24	1.92	2.22	1.97	1.23	1.22
Females	1.31	1.16	1.36	1.93	1.69	1.69	1.41	1.04	0.90
Severe or total hearing disability	0.93	0.68	1.01	1.62	1.09	1.09	1.14	0.69	0.81
Males	0.93	0.74	0.98	1.68	1.06	1.00	1.07	0.76	0.75
Females	0.94	0.61	1.04	1.53	1.13	1.18	1.22	0.63	0.88
Severe or total moving disability	1.58	1.15	1.70	2.38	1.84	1.82	1.98	1.19	1.36
Males	1.45	1.07	1.56	2.16	1.75	1.55	1.74	1.14	1.21

Indicator	Vanuatu	Urban	Rural	Torba	Sanma	Penama	Malampa	Shefa	Tafea	
Females	1.71	1.24	1.84	2.57	1.95	2.09	2.22	1.24	1.51	
Severe or total senility and/or amnesia	0.82	0.51	0.91	1.48	0.87	1.05	0.93	0.59	0.84	
Males	0.77	0.53	0.84	1.27	0.90	0.79	0.87	0.60	0.76	
Females	0.87	0.49	0.98	1.69	0.85	1.30	1.00	0.58	0.91	
Fertility										
Total fertility rate (TFR)	3.7	3.2	3.8	4.3	3.8	4.0	3.3	3.2	4.5	
Teenage fertility rate (15–19)	48.8	34.7	53.2	66.9	57.9	62.9	41.6	41.0	49.2	
Average number of children ever born to women (45–49)	3.8	3.4	3.9	4.1	3.9	4.0	3.5	3.4	4.5	
General fertility rate (GFR)	117	104	122	135	126	127	101	105	141	
Child–woman ratio (CWR)	570	446	612	546	619	659	589	479	693	
Mean age at childbearing	28.6	28.7	28.5	28.3	28.1	28.3	28.4	28.5	29.7	
Annual number of births 2020	8,292	1,883	6,409	347	1,810	937	934	2,826	1,438	
Crude birth rate (CBR)	28.2	28.6	28.1	30.9	30.3	27.5	22.5	27.6	32.0	
Mortality										
Proportion of children ever born still alive (%)	96.3	97.4	96.1	94.7	97.0	96.0	94.5	97.4	95.7	
Males	96.1	97.3	95.8	94.8	96.8	95.6	93.9	97.3	95.5	
Females	96.6	97.5	96.4	94.7	97.1	96.5	95.1	97.5	95.9	
Proportion of population aged 60+ who are widowed (%)	20.1	19.1	20.3	24.6	20.4	21.2	19.0	19.8	19.4	
Males	11.1	10.9	11.2	12.3	11.8	10.6	10.8	11.6	9.5	
Females	28.9	27.9	29.2	36.5	29.9	30.4	27.1	28.3	28.0	
Proportion of population orphaned (%)										
Fathers dead	24.6	25.8	24.3	24.4	23.3	26.3	26.1	25.4	22.1	
Mothers dead	19.2	19.0	19.2	19.2	18.4	19.7	21.5	19.6	16.9	
Infant mortality rate (IMR)	16	13	16	16	11	18	25	13	19	
Males	17	14	18	14	13	19	27	14	20	
Females	14	13	15	19	9	16	24	11	19	
Child mortality (4q1)	3	2	3	3	2	3	5	2	3	
Males	2	3	3	2	2	3	5	2	3	
Females	3	2	3	4	2	3	5	2	4	
Under-five mortality (5q0)	18	15	19	19	13	21	30	15	22	
Males	19	16	20	15	15	22	32	16	23	
Females	17	15	18	23	11	19	29	13	22	
Estimated annual deaths	2,327	587	1,741	53	446	320	330	875		
Crude death rate (CDR)	7.8	8.8	7.5	4.7	7.3	9.0	7.8	8.4	6.7	
Migration							1	I		
Annual net migrants (5 years)				1	228	-1,000	-740	1,880	-369	
Annual net migration rate (%)				0.00	0.08	-0.58	-0.36	0.38	-0.17	

Note: Unlike the convention adopted in volume 1, volume 2 refers to Sanma and Shefa provinces as a whole, including both urban and rural areas.

All proportional indicators (with the exception of the child–woman ratio) were computed relative to the population living in private HHs, not the total population.

MAP OF VANUATU



1. INTRODUCTION

This report provides an analysis of the Vanuatu 2020 census data. Where information is available, it also provides comparisons with data from earlier censuses.

1.1. Geographic setting

Vanuatu consists of six provinces, Torba, Sanma, Penama, Malampa, Shefa and Tafea. The country is spread over an area of 612,300 km² in the South Pacific and has a total land area of 12,281 km². It stretches from Hiu Island up north to the Matthew and Hunter Islands down south and includes 83 main islands, of which about 63 are permanently inhabited. Port Vila, the capital, is located on the island of Efate in Shefa province. Efate is the most populated island, although Santo Island (Sanma province) is the biggest in terms of land area. Port Vila is 1,288 km due south east of Honiara, Solomon Islands; 1,071 km west of Suva, Fiji; and 2,394 km east of Cairns, Australia (see map).

1.2. Background

This report is a collaborative effort between the Vanuatu Bureau of Statistics (VBS) and the Statistics for Development Division (SDD) of the Pacific Community (SPC).

The report is based on data collected during the population census enumeration, with 16 November 2020 being census day. The main purpose of this report is to:

- provide a general overview of the vast amount of detailed information that is available from the 2020 census enumeration;
- generate interest, curiosity and a desire for more detailed information, especially by Vanuatu decision-makers and the general public; and
- enhance the decision-making process used by policy-makers.

Data users are encouraged to contact either the VBS or SPC for further information.

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2. POPULATION SIZE, TREND, DISTRIBUTION, STRUCTURE AND URBANISATION

2.1. Population size and trend

The size, growth, and trend of the Vanuatu population are important considerations in planning processes. Urban areas and areas of high population density need to be understood in order to analyse the population data in terms of its demographic dynamics.

The total enumerated population of Vanuatu was 300,019 in November 2020. This is an increase of 65,966 people since the 2009 population census. Figures 1–3 show the population trend from 1967 to 2020.

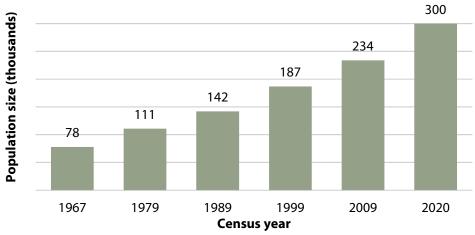
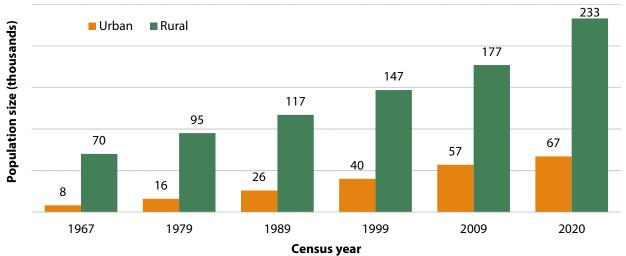


Figure 1. Total population size, Vanuatu: 1967–2020

It can be seen from Figure 1 that Vanuatu's population has increased continuously, almost quadrupling in size from 78,000 in 1967 to 300,000 in 2020.

Urban and rural areas, and the six provinces, all show an increase in population size (Figs 2 and 3), although growth rates vary. Shefa and Sanma provinces, where the urban centres of Port Vila and Luganville are located, had the fastest increases.





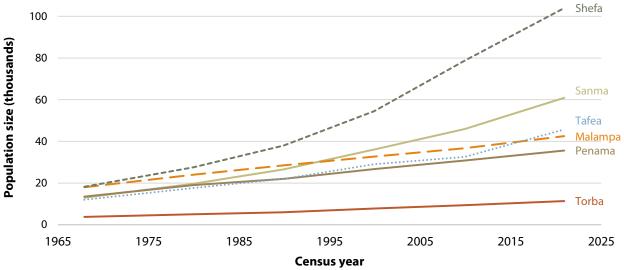


Figure 3. Population size by province, Vanuatu: 1967–2020

Fertility, mortality and migration are the three demographic processes that continuously affect population composition. A closed population (a population not affected by migration) changes only through natural processes, that is, births and deaths. However, population growth is usually also shaped by migration.

During the intercensal period 1999–2009, the population growth rate was 2.3%. The same average growth rate was maintained in the period 2009–2020, as shown in Table 1. Although the growth rate was constant, the population continued to increase faster (Figs 4 and 5). This was because the average annual absolute population increase during the period 1999–2009 was 4,729 people with a 2.3% growth rate; it then increased by 6,000 people annually during the period 2009–2020 because of the larger base population.

While the overall growth rate of Vanuatu's population between 2009 and 2020 was the same as during the previous intercensal period, the rate increased in some provinces (Sanma, Malampa and Tafea) but decreased in others. Tafea had the largest growth rate (3.1%), whereas Penama and Malampa (1.3%) had the smallest (Table 1). Provincial growth trends changed considerably after Tropical Cyclone Pam (TC Pam) in 2015.

Data from the 2016 mini-census shows that between 2009–2016, annual provincial growth rates were reasonably close to the rates in the 1999–2009 period: 1.2% for Torba, 2.4% for Sanma, 0.8% for Penama, 1.6% for Malampa, 3.1% for Shefa and 1.9% for Tafea. However, in the period between 2016 and 2020, the growth rates for Torba, Penama and, in particular, Tafea accelerated considerably to 2.8%, 2.3% and 5.4%, respectively, while the annual growth rates of Malampa and Shefa fell to 0.9% and 1.6%, respectively. TC Pam hit Tafea province particularly hard. During the reconstruction that followed, a concerted effort was made to improve the existing infrastructure, particularly on the island of Tanna. As a result, Tanna's population grew by an annual rate of 6.0% between 2016 and 2020.

With a 2.3% growth rate, the population of Vanuatu would double in 31 years. *Doubling time* is an indication of future population size, assuming that the current population growth rate remains constant over time. In such a case, the population would reach 600,000 people in the year 2050. The populations of Penama and Malampa would take much longer to double, that is 53 and 52 years, respectively. Tafea would have the shortest doubling time of just 22 years.

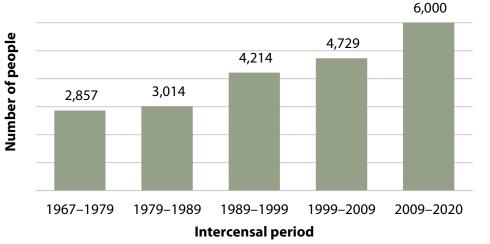
					Doubling time						
Region	Total population		n size	Annual number		Percer	ntages	Average annual growth (%)		yea	
	1999	2009	2020	1999– 2009	2009– 2020	1999– 2009	2009– 2020	1999– 2009	2009– 2020	2009	2020
Vanuatu	186,678	234,023	300,019	4,729	6,000	25	28	2.3	2.3	31	31
Urban	40,094	57,195	66,753	1,708	869	43	17	3.5	1.4	20	49
Rural	146,584	176,828	233,266	3,021	5,131	21	32	1.9	2.6	37	28
Torba	7,757	9,359	11,330	160	179	21	21	1.9	1.8	37	40
Sanma*	36,084	45,855	60,884	976	1,366	27	33	2.4	2.6	29	27
Penama	26,646	30,819	35,607	417	435	16	16	1.5	1.3	48	53
Malampa	32,705	36,727	42,499	402	525	12	16	1.2	1.3	60	52
Shefa ¹	54,439	78,723	103,987	2,426	2,297	45	32	3.7	2.6	19	27
Tafea	29,047	32,540	45,714	349	1,198	12	41	1.1	3.1	62	22

Table 1. Population size, growth rate and doubling time by place of residence, Vanuatu: 1999, 2009 and2020.

* Shefa and Sanma include the urban areas of Port Vila and Luganville.

At first sight it may seem unexpected that the urban growth rate has decreased from 3.5% per year between 1999–2009 to 1.4% between 2009–2020, while the rural growth rate has increased from 1.9% to 2.6% for the same period. This phenomenon is due to the fact that the two urban centres, Port Vila and Luganville, have reached the limits of their respective urban areas so much of their expansion in the past decade has spilled over into adjacent rural Area Councils (ACs). In the area adjacent to Port Vila, Erakor (6.9%), Eratap (6.7%), Ifira (3.9%) and Mele (5.3%) have been growing at rates well beyond the national rural average. South-East Santo, adjacent to Luganville, has been growing at an annual average of 5.6% and Canal Fanafo at 2.7%. When these six ACs are removed from the overall rural population, the intercensal annual growth rate of the remaining rural area between 2009–2020 is only 2.0%, i.e. only a marginal increase over the 1.9% observed between 1999–2009.

Apart from the ACs mentioned in the previous paragraph, the ACs of Eton (5.1%) and Aneityum (4.5%) have also grown considerably, but because they are small, their impact on national growth rates is modest. On the other hand, negative growth has occurred in the following ACs: South Ambae (-0.6%), Mota (-0.3%), North Ambae (-0.2%), East and West Ambae (-0.8%), Paama (-0.7%), North Tongoa (-0.6%), Tongariki (-0.3%) and Merelava (-0.2%).





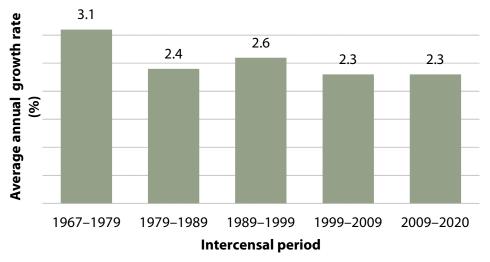


Figure 5. Percentage of average annual population growth rate, Vanuatu: 1967–2020

2.2. Population distribution

Information about the place of enumeration was used to describe the distribution of population. In 2020, Shefa province had the biggest share of the country's population, comprising 34.6% of the national total. This represents a slight increase from 2009 when 33.6% people lived there. The country's capital urban centre is located in Shefa, which is the main reason for its larger share of the population. Sanma province, which is the location of Luganville, Vanuatu's second largest urban centre, had the next highest proportion of the total population (20.3%).

2.3. Population density

Vanuatu has a total land area of 12,281km². According to the 2020 census, the average population density for Vanuatu was 24.4 people/km², an increase from 19.1 people/km² in 2009 (Table 2). This density places Vanuatu among the 50 least densely populated countries in the world.

Population density varies widely throughout the provinces. Shefa province is the most densely populated due to urbanisation. It has just over 69.0 people/km² – an increase from 2009 when it had 52.2 people per km². Despite having substantial populations, Sanma and Malampa both have low densities because of their large land areas.

Province	Land area	Tota	Total population			Population density		
Province	(km²)	1999	2009	2020	1999	2009	2020	
Vanuatu	12,281	186,678	234,023	300,019	15.2	19.1	24.4	
Torba	867	7,757	9,359	11,330	8.9	10.8	13.1	
Sanma	4,262	36,084	45,860	60,884	8.5	10.8	14.3	
Penama	1,204	26,646	30,819	35,607	22.1	25.6	29.6	
Malampa	2,808	32,705	36,724	42,499	11.6	13.1	15.1	
Shefa	1,507	54,439	78,721	103,987	36.1	52.2	69.0	
Tafea	1,632	29,047	32,540	45,714	17.8	19.9	28.0	

Table 2. Population density (number of people/km²) by province, Vanuatu: 1999, 2009 and 2020

Information on the above crude population density has been used to calculate a summary measure the Gini Concentration Ratio¹—which indicates how evenly or unevenly the population is distributed over the entire territory of Vanuatu. If Vanuatu's population were evenly distributed, a given proportion of the country's area would have the same proportion of its population; that is, 20% of Vanuatu's area would have 20% of the population.

¹ The Gini index is a measure of statistical dispersion developed by the Italian statistician and sociologist, Corrado Gini, in his 1912 paper 'Variability and Mutability'. It is a measure of the inequality of a distribution; a value of 0 expresses total equality and a value of 1 maximal inequality.

In reality, a country's population is never evenly distributed over the land surface area. Hence, the cumulative proportion of land area and population will differ from each other. The Gini index can be used to analyse the historical population concentration in Vanuatu as a whole, or the population concentration in each province. The higher the value of the index, the higher the concentration of the population within a limited number of areas of the country.

The ratio can range from 0 to 1, or can sometimes be multiplied by 100 to range between 0 and 100. A low Gini index indicates more equal distribution, with 0 corresponding to complete equality. Higher Gini indexes indicate more unequal distribution, with 1 corresponding to complete inequality. Although it is a useful measure for certain purposes, this index of population concentration must be interpreted with caution. If, for example, provinces could be defined in such a way that all uninhabited land areas were excluded, then all inhabited land areas would have high population densities, and the index value would be close to its maximum.

More importantly, the Gini index is affected by the size of the areas used in the calculation. This is illustrated by Figure 6, which shows the Lorenz diagram for both provinces and ACs. The units (provinces or ACs) in this diagram are arranged from those with the lowest population density on the left to those with the highest density on the right. The green and blue lines represent the accumulated proportion of the national population living in the areas to the left of a given data point. If the provinces are used as the basic territorial units (the green line), the Gini index (the area between the red and green lines, as a proportion of the lower right triangle) is relatively low (0.32), and only marginally higher than in 2009 (0.31) and 1999 (0.29). However, at the AC level (the blue line), there is a much greater variation of population densities, resulting in a much higher Gini index of 0.621. The AC-level Lorenz curve for 2009, which is also drawn in Figure 6, is almost indistinguishable from the 2020 curve, with a Gini index of 0.615.

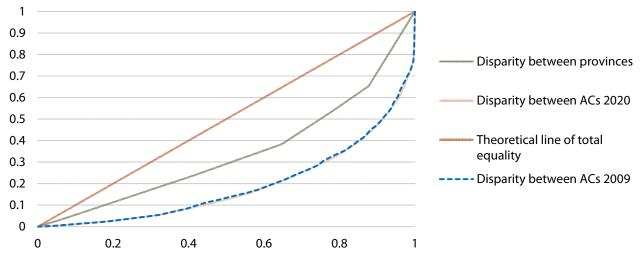


Figure 6. Lorenz curve for measuring population concentration in Vanuatu: 2009 and 2020

2.4. Population structure

The enumerated 2020 resident population consisted of 151,597 males and 148,422 females. Males outnumbered females by 3,175, resulting in a sex ratio of 102.1, which means that there were 102.1 males to 100 females. However, sex ratios varied by province as can be seen in Figure 7.

A sex ratio of 100 means there are equal numbers of males and females. A sex ratio lower than 100 means there are more females than males. A sex ratio higher than 100 means there are more males than females. Figure 7 shows there were significantly more males than females in Vanuatu overall and in all provinces except Tafea, which had more females than males.

A population's age-sex structure provides important clues to its demographic history. Persons of the same age constitute a cohort of people who were born during the same year (or period); they have been exposed to similar historical events and conditions. The age-sex structure of the whole population at a given moment may be viewed as an aggregation of cohorts born in different years.

A graphic representation of the age structure of the population such as an 'age pyramid' shows the different surviving cohorts of people of each sex in Vanuatu.

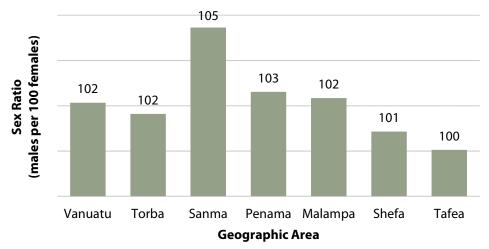
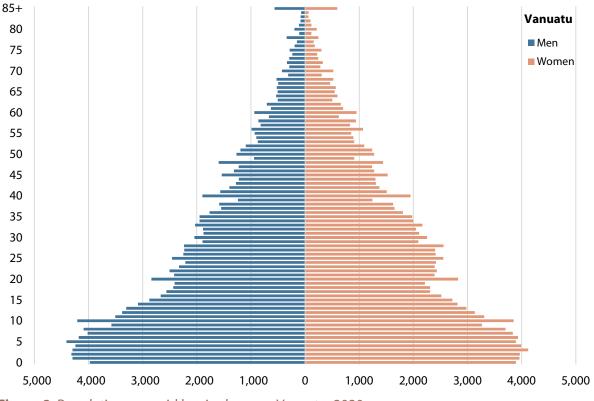


Figure 7. Sex ratios for all ages by province, Vanuatu: 2020

A population pyramid shows the number of males and females in 5-year age groups or single years (Fig. 8 and Figs 9–14), 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.





At first sight, Vanuatu'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 younger age groups, with increasingly narrow bars towards the top of the pyramid, representing decreasing age groups at older ages. The slight contraction in the very lowest ages may indicate a reduction of fertility, but it may also be due to the fact that these ages tend to be under-enumerated. The fact that the most urbanised province, Shefa, does not display this feature tends to support the latter explanation. The pyramids for Malampa, Penama, Tafea and Torba have a similar shape, characterised by extremely narrow bars at roughly ages 20–34. It is evident that these provinces are losing people aged 20–34 as they migrate to urban centres in search of employment and education and for other reasons.

Shefa's population pyramid presents a very different picture compared to the other provinces. It shows a large number of people aged 15–25 years. As stated above, internal migration, particularly to Port Vila town, explains the high number of people in that age group. Port Vila, considered the gateway to modernisation and globalisation, presents opportunities such as employment, better health and education services, and appropriate infrastructure, which encourage migration.

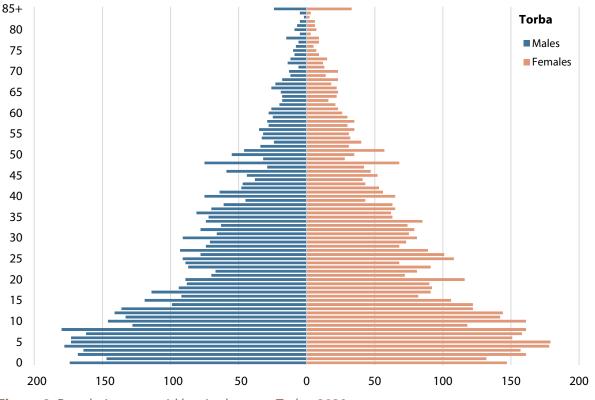
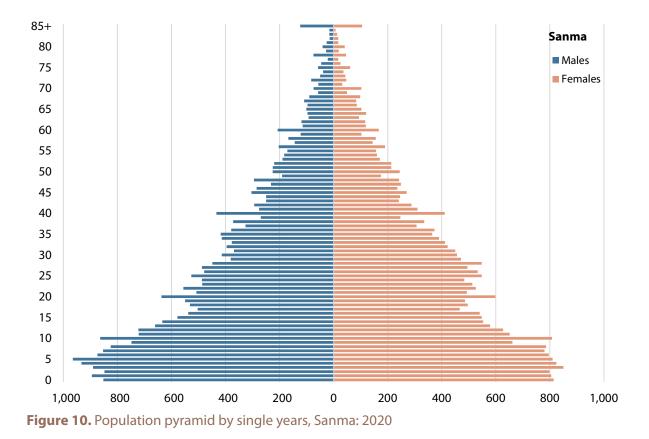


Figure 9. Population pyramid by single years, Torba: 2020



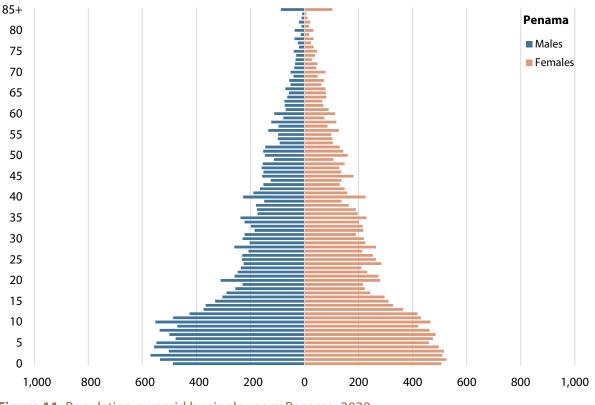


Figure 11. Population pyramid by single years, Penama: 2020

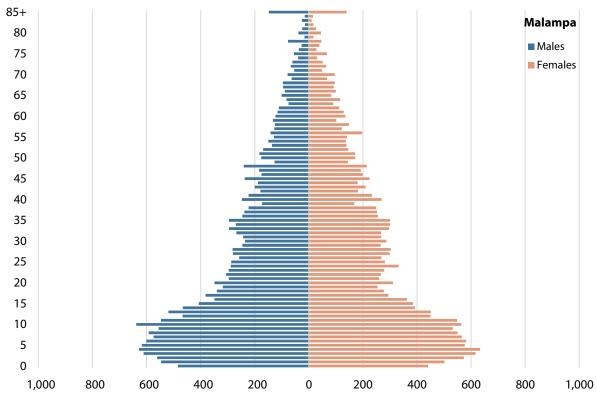


Figure 12. Population pyramid by single years, Malampa: 2020

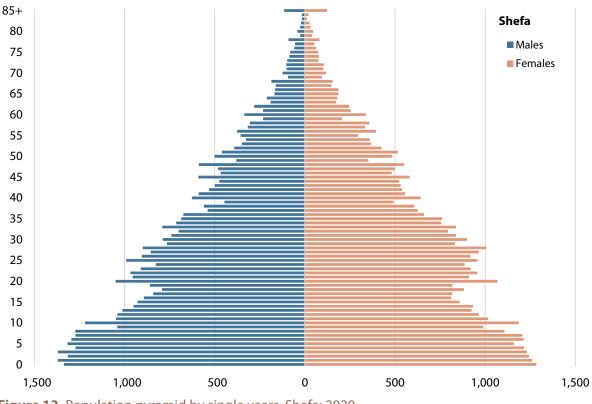


Figure 13. Population pyramid by single years, Shefa: 2020

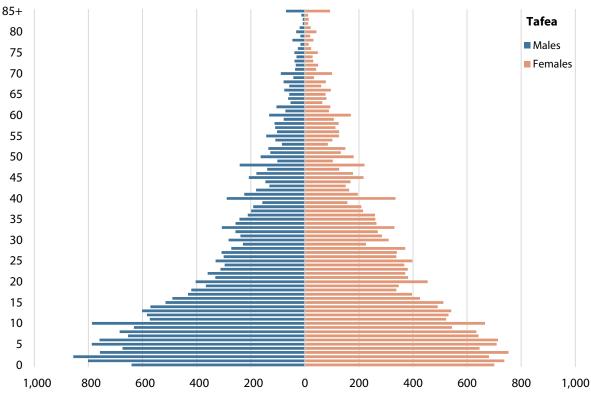


Figure 14. Population pyramid by single years, Tafea: 2020

In addition to the observations above on the general shape of the pyramids, there are two details regarding the quality of the information that require comment. All of the pyramids above, but particularly the ones for Torba and Tafea, display variations in the population counts for adjacent ages. In particular, there is an excess of population in ages ending in '0' or, to a lesser extent, in '5', and a deficit in ages ending in '9' or '7'. This is due to errors in age declaration, in which ages tend to be rounded up

or down to certain preferred digits. This tendency occurs despite the efforts made by the census to validate people's ages through their date of birth and even through their identity cards.

There are a number of indices to quantify the extent of this phenomenon. The one chosen here is Myers' blended index, which is displayed in Table 3. The numbers in column 10–19 are the population of age 10, the population of age 11 multiplied by 2, age 12 multiplied by 3, and so on, until age 19. From then on, all populations are multiplied by 10 until age 70, where the population is multiplied by 9, 71 by 8, 72 by 7, and so on. The column marked as 'Total' computes the horizontal sums, which are then represented as percentages of the overall total. The last column computes the absolute differences with respect to 10, that is, the percentage expected in the absence of digit preference. The sum of the values in the last column, divided by 2, is known as Myers' index.

Male	10–19	20–29	30–39	40–49	50–59	60–69	70–79	Total	%	Dev.
0	4,208	28,380	20,420	18,980	12,670	9,370	3,861	97,889	11.23	1.23
1	7,014	24,180	18,780	15,660	11,960	6,320	2,344	86,258	9.9	0.1
2	10,134	25,020	18,840	13,970	10,960	7,070	2,352	88,346	10.14	0.14
3	13,216	23,280	20,310	12,770	8,730	5,040	1,752	85,098	9.77	0.23
4	15,435	22,130	19,510	12,220	9,010	5,360	1,175	84,840	9.74	0.26
5	17,262	24,580	19,490	15,390	9,290	5,070	1,132	92,214	10.58	0.58
6	18,662	22,500	17,640	13,170	9,900	5,240	582	87,694	10.06	0.06
7	20,496	22,330	15,500	12,250	8,210	4,990	304	84,080	9.65	0.35
8	21,906	22,350	15,870	15,940	8,630	5,270	341	90,307	10.36	0.36
9	24,110	18,940	12,400	9,450	6,670	3,120	-	74,690	8.57	1.43
Total								871,416		4.76

Table 3. Male and female Myers' indices, Vanuatu: 2020

Female	10–19	20–29	30–39	40–49	50–59	60–69	70–79	Total	%	Dev.
0	3,850	28,270	22,530	19,480	12,780	9,510	4,689	101,109	11.45	1.45
1	6,620	23,920	21,070	15,080	12,420	7,020	2,248	88,378	10.01	0.01
2	9,408	24,330	20,510	13,740	10,950	6,590	2,289	87,817	9.95	0.05
3	11,924	23,940	21,670	13,070	9,080	5,010	1,458	86,152	9.76	0.24
4	14,085	24,190	19,980	12,990	8,950	5,980	1,110	87,285	9.89	0.11
5	16,326	25,530	19,800	15,250	8,510	5,470	1,212	92,098	10.43	0.43
6	17,626	24,100	18,070	12,780	10,700	5,670	534	89,480	10.14	0.14
7	18,472	24,010	16,530	12,380	8,280	4,630	314	84,616	9.59	0.41
8	20,781	25,580	16,280	14,420	9,400	5,210	247	91,918	10.41	0.41
9	22,130	20,930	12,440	9,090	6,220	3,070	-	73,880	8.37	1.63
Total								882,733		4.9

As shown in Table 3, Myers' index for Vanuatu is 2.38 for men and 2.45 for women. These values are considered acceptable. The indices for the other provinces vary between a low of 2.25 (men) and 2.19 (women) in Shefa to a high of 3.60 (men) and 4.18 (women) in Tafea. While these values indicate the existence of some distortions of the age distribution due to digit preference, the extent of the problem is limited.

Apart from the tendency to prefer certain ages in responding to the census question on age, there are other systematic irregularities with respect to certain age and sex groups. This can be evaluated by comparing the observed population structure by sex and age to the closest population structure that can be generated by imputing plausible levels and past trends in fertility and mortality. The main issues observed by comparing the two age–sex structures are a lower-than-expected number of women aged 60+, and a lower-than-expected number of persons of both sexes in the 15–24 year age category. Both of these phenomena were also present in the 2009 census. The lower-than- expected number of persons in the 15–24 year age category may be the result of temporary migration of workers

currently living abroad who tend to return afterwards. However, the missing women aged 60+ are harder to explain.

The issue of sex imbalances can be illustrated by looking at the sex ratio by age. Figure 15 displays a 5-year moving average of the sex ratio (100 * males / females) by age. Because male mortality is higher than female mortality, the natural tendency for the sex ratio is to fall at higher ages as fewer men than women survive to these ages. The only mechanism that may counteract this tendency is the existence of very strong immigration of older men or emigration of older women. Since this is not the case in Vanuatu, the only other explanation for the absence of this decreasing trend is that older women tend to be under-enumerated in the census. Similar problems appear to have occurred in the earlier censuses. The anomaly appears to be particularly pronounced in Sanma province, which is also shown in Figure 15 for comparative purposes. In this province, the trend at higher ages is the opposite of what would be expected. As shown in Figure 7, this is also the province with the highest overall sex ratio, a very unusual 107 men per 100 women.

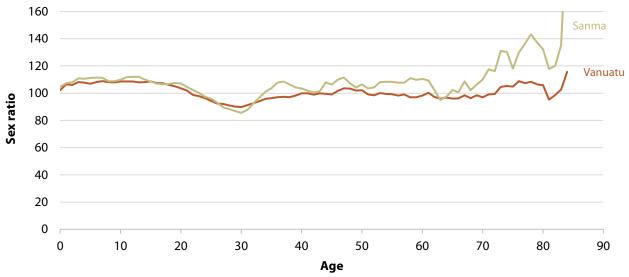


Figure 15. Five-year moving average of the sex ratio by age: Vanuatu and Sanma province, 2020

From the overall population structure illustrated by the population pyramids, several indicators can be calculated, such as the median age and age dependency ratio. Vanuatu's population has a relatively young age structure: 38.6% of the population is younger than 15 years of age; 55.0% is in the so-called working age groups 15–59; and 6.4% are older than 60 years (Table 4).

There is a direct link between the size and proportion of the number of young people and the median age. The age structure is also illustrated by the median age of 20.9 years, meaning that half of the Vanuatu population was younger and the other half older than 20.9 years. The median age in 2009 was 20.5 years, indicating that the population structure was slightly older in 2020 compared to 2009.

Over 55% of Shefa's population was in the 15–59 age group as a result of the influx of migrants from other provinces. The median age of 22.2 years was the highest in the country. On the other hand, Shefa, like Sanma, had the lowest proportion of people aged over 60 years.

Figure 17 shows a comparison of the median age by province, which varies widely. While the median age was within the range of 19–22 years for all provinces, it was much less for Tafea, at only 17.4 years.

Table 4. Population distribution by broad age group, dependency ratio, median age, and sex ratio,Vanuatu: 2009 and 2020

Drowinco	Year	Percentage	e of population	on by broad a	ige groups	Age dependency	Median age	Sex ratio (males
Province	rear	0–14	15–24	25–59	60+	ratio (15–59)	(years)	per 100 females)
Vanuatu	2009	39	19	36	б	81	20.5	104
Vanuatu	2020	39	18	37	6	82	20.9	102
Tarka	2009	43	18	33	6	95	18.7	102
Torba	2020	41	17	36	6	90	19.9	102

Province	Year	Percentage	e of population	on by broad a	ige groups	Age dependency	Median age	Sex ratio (males
Province	Tear	0–14	15–24	25–59	60+	ratio (15–59)	(years)	per 100 females)
Canma	2009	40	20	35	5	82	19.6	106
Sanma	2020	41	18	35	6	88	19.8	107
Denama	2009	41	17	34	8	96	19.3	102
Penama	2020	41	18	36	7	92	18.6	102
Malamna	2009	40	17	35	8	92	20.4	101
Malampa	2020	39	17	36	8	91	20.8	102
Shefa	2009	33	23	39	5	61	22.6	106
Sheid	2020	37	18	38	7	77	22.2	101
Tafaa	2009	46	16	32	6	108	17.1	99
Tafea	2020	44	19	31	6	99	17.4	100

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 4.

In 2020, Vanuatu had a dependency ratio of 82, meaning that for every 100 people of working age, 82 people were in the age-dependent category. The higher the dependency ratio, the higher the number of people that need to be sustained by the working age population. The dependency ratio has decreased since the 2009 census when it was 81. The population structure of the provincial populations shows that the age-dependency ratios of the different provinces vary accordingly.

The most favourable dependency ratio can be found in Shefa with only 77 dependent people per 100 people of working age. Dependency ratios were much higher in Tafea, Penama and Torba. Tafea registered the highest dependent population of 99, meaning there were more people of old and young ages than people in working age groups. Looking at its broad age groups, Tafea has the highest number of people in the age group 0–14 compared to the other provinces, and also the least number of people in the working age group (15–59), paving the way for a higher dependent population.

Urbanisation occurs in different ways and for different reasons. Historically, it has often been associated with the transition from an agrarian to an industrial economy, which requires greater population concentration. However, the fact that educational and commercial services and infrastructure are often limited to certain areas has also been a major factor in their conversion to urban centres as people migrate to gain access to services. Some cities have undergone rapid growth due to the rents generated by their strategic position in the export of goods from the hinterland. Other urban centres owe their existence to deliberate decisions to establish a national or regional administrative centre in a particular location, as in the case of Canberra in Australia or Belmopán in Belize.

Throughout much of the Pacific, migration to urban areas has historically been dominated by short-term or temporary moves, a pattern often reinforced by colonial policy. For the last 50 to 70 years, however, there has been a tendency for rural residents, who initially moved to the cities temporarily to take advantage of opportunities for urban services or access to cash incomes, to make the city their permanent residence.

As Petrou and Connell (2017) put it, "Rural migrants can no longer be considered temporary sojourners and expected eventually to return to their 'real' homes. Circular migration appears to be disappearing."² They also point out that, "Nonetheless, governments continue to argue that issues relating to increasing urban populations, including lack of suitable housing, high unemployment rates, environmental degradation, discontent and increasingly visible poverty, could be solved if migrants returned to their 'home' villages, so resulting in the lack of adequate urban management, and the will to undertake it."³

² Petrou K. and Connell J. 2017. Rural-urban migrants, translocal communities and the myth of return migration in Vanuatu: the case of Paama. Journal de la Société des Océanistes. 144–145: 51–62.

As shown in Table 22, the largest inter-provincial migration stream is from Malampa to Shefa. Many of these migrants are likely to be from Paama, as Paamese have a long history of migration from the island. However, Table 22 also shows a significant stream of migrants returning from Shefa to Malampa.

2.5. Urban growth

Since 1967, Vanuatu's total population and its urban population have been increasing. Vanuatu's urban centres have gained 59,000 people since 1967, growing from less than 8,000 people in 1967 to almost 67,000 people in 2020. During the 1999–2009 intercensal period, despite declining growth rates (Fig. 21) the population continued to increase (Fig. 22) in absolute terms. According to the United Nations (UN) Population Division, between 2015 and 2020, Vanuatu had the third highest urban growth rate in the Pacific region after Solomon Islands and Kiribati.⁴ Nevertheless, between 2009 and 2020, there was a significant drop in urban growth in both absolute and relative terms.

This change in the historical trend, however, is somewhat deceptive as it depends on the way urbanisation is defined in Vanuatu, namely in terms of the number of inhabitants of two ACs, Port Vila and Luganville. As pointed out earlier in this chapter, these two ACs have mostly exhausted their potential for further growth. As a result, urbanisation is now expanding into the adjacent ACs, which are still formally classified as rural. If urbanisation were defined according to a different criterion, such as the presence of urban infrastructure, it is likely that the trend of previous intercensal periods would continue in 2009–2020.

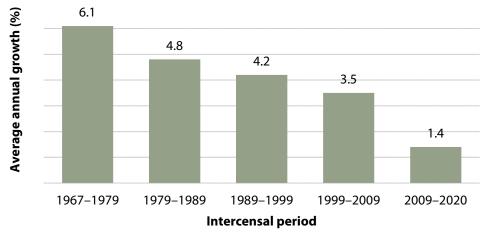
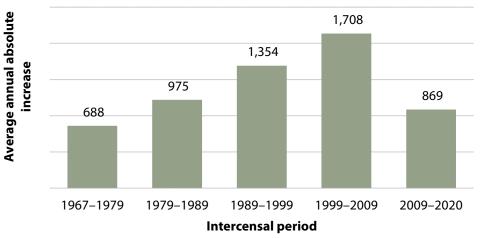


Figure 16. Percentage of average annual population growth in urban areas, Vanuatu: 1967–2020





⁴ United Nations, Department of Economic and Social Affairs, Population Division 2019. World Urbanization Prospects: The 2018 Revision (ST/ESA/SER.A/420). New York: United Nations. Available at: https://digitallibrary.un.org/record/3833745/files/WUP2018-Report.pdf

2.5.1 Degree of urbanisation

The degree or level of urbanisation is defined as the relative number of people who live in urban areas. Several indices have been drawn to measure particular aspects of degree of urbanisation at a given time. These measures are % urban [UP/TP*100], % rural [RP/TP*100] and the urban/rural ratio [UP/RP*100].

Census		Population		% Urban	% Rural	Urban/Rural
year	Total (TP)	Urban (UP)	Rural (RP)	% UIDdii	% Ku rdi	ratio
1967	77,988	7,772	70,216	10.0	90.0	11.07
1979	111,251	15,784	95,467	14.2	85.8	16.53
1989	142,419	25,870	116,549	18.2	81.8	22.20
1999	186,678	40,094	146,584	21.5	78.5	27.35
2009	234,023	57,195	176,828	24.4	75.6	32.34
2020	300,019	66,753	233,266	22.2	77.8	28.62

Table 5. Degree of urbanisation, Vanuatu: 1967–2020

Note that in terms of the formal criterion for urbanisation used in Vanuatu, the degree of urbanisation decreased between 2009 and 2020. Based on the three stages of urbanisation described by Kingsley Davis, Vanuatu would be ranked in the first stage because the proportion of people living in urban areas is still less than 25%, and Vanuatu's rural traditional society is still characterised by the predominance of agriculture and a dispersed pattern of settlement. However, as explained above, at least some rural ACs, such as Mele, Erakor, Eratap and South East Santo, are rapidly becoming urbanised due to their proximity to the urban centres of Port Vila and Luganville. Thus, the distinction between urban and rural areas is increasingly fluid. By contrast, Port Vila has grown only slowly (0.6% per year) since 2009, and Luganville (2.4%) has barely outpaced the national growth rate.

2.5.2 Tempo of urbanisation

The tempo of urbanisation refers to the speed of urbanisation and measures changes in the degree of urbanisation by analysing changes in the indices used for measuring this degree. The measurement of urbanisation tempo indicates the pace at which a specific area is urbanising. If the degree of urbanisation in a country or province is known for two or more dates, the tempo can be measured by the annual change in the index used for measuring the level of urbanisation. Although potentially useful, this procedure of measuring the tempo requires some caution, depending on the index used to measure the level of urbanisation.

Census	Popula	lation growth rate Urb		Urban	Rural	U/R ratio
interval	Total	Urban	Rural	growth	growth	growth
1967-1979	3.1	6.1	2.6	3.0	-0.4	3.5
1979–1989	2.4	4.8	1.9	2.4	-0.5	2.9
1989-1999	2.6	4.2	2.2	1.7	-0.4	2.1
1999–2009	2.3	3.5	1.9	1.3	-0.4	1.7
2009-2020	2.3	1.4	2.6	-0.9	0.3	-1.2

Table 6. Tempo of urbanisation, Vanuatu: 1967–2020

One quick index for measuring the tempo of urbanisation is the difference between the annual population growth rates of urban and rural areas. For example, the annual population growth rates during the 2009–2020 census period for urban and rural areas were 1.4% and 2.6%, respectively; the urbanisation tempo is -0.9% per year (Table 6).

The other index for measuring the tempo of urbanisation is by using the 'urban/rural ratio'. It is also related to the difference between the annual population growth rates of urban and rural areas. If the urban/rural ratio is known for more than one date, the annual exponential growth rate of the urban/rural ratio is also the difference between the urban and rural annual population growth rates. For

Vanuatu in 2020, the annual exponential growth rate of the 'urban/rural population ratio' is -1.2%, which is equal to the difference between the urban population growth rate of -0.9% and the rural population growth rate of 0.3%. The main advantage of using this method compared to others for measuring tempo of urbanisation is that it does not drop to zero when the country approaches the 100% level of urbanisation. However, it does regress toward the growth rate of the urban population.

Measuring the tempo of urbanisation makes sense for determining how fast one area is growing in relation to the other and is also related to the indices for measuring the level of urbanisation. Thus, using the urban/rural ratio ensures there is an appropriate measuring index. However, the numbers in Table 6 are somewhat misleading because they maintain the same enumeration areas (EAs) over time. As suggested earlier in this chapter, some EAs (if not entire ACs) that are currently still classified as rural should probably be classified as urban since these areas are showing characteristics of urban expansion.



3. DEMOGRAPHIC COMPONENTS

3.1. Fertility

3.1.1 National estimates

To determine the level and pattern of fertility in Vanuatu, women 15+ years were asked the following questions:

- How many children they had born alive?
- When was their last child born?

They were also asked how old they were when they had their first child.

The total number of children born alive to 90,395 women aged 15+ years was 225,051: 116,666 males and 108,386 females (Table 7). The average number of children born alive to all women (average parity) was 2.5 children per woman.

Age group	Number of	Number o	of children	ever born	Average number per woman			
of women	women	Males	Females	Total	Males	Females	Total	
15–19	12,295	570	539	1,109	0.05	0.04	0.09	
20-24	12,828	5,615	5,149	10,764	0.44	0.40	0.84	
25–29	12,306	11,478	10,704	22,183	0.93	0.87	1.80	
30-34	10,808	14,965	13,779	28,744	1.38	1.27	2.66	
35-39	8,485	14,279	13,256	27,535	1.68	1.56	3.25	
40-44	7,575	14,497	13,276	27,772	1.91	1.75	3.67	
45-49	6,487	12,583	11,766	24,349	1.94	1.81	3.75	
50-54	5,522	11,086	10,288	21,374	2.01	1.86	3.87	
55-59	4,394	9,037	8,688	17,725	2.06	1.98	4.03	
60–64	3,467	7,544	7,069	14,613	2.18	2.04	4.21	
65–69	2,446	5,743	5,262	11,005	2.35	2.15	4.50	
70+	3,782	9,268	8,609	17,876	2.45	2.28	4.73	
Total	90,395	116,666	108,386	225,051	1.29	1.20	2.49	

Table 7. Female population 15+ years by number of children ever born alive, Vanuatu: 2020

Average parity increases with the age of women. While women aged 15–19 had very few children, women aged 45–49 had an average of 3.8 children, and women older than 70 had 5 on average. The average parities of women over 49 years provide an indication of how many children a certain cohort of women who have completed their childbearing produced during those years. Although this is useful to know, it has two limitations. Firstly, this fertility experience refers to a relatively old cohort of women and does not reflect present fertility conditions. Secondly, there is a well-known tendency for older women to understate their fertility as they forget some older births, especially of children who are no longer alive.

Figure 18 shows a comparison of the reported average number of children ever born for the last four censuses. A fertility decline is apparent as the average number of children per woman at every age declined from one census to the next. While the average number of children of women aged 45–49 years was 5.5 in 1989, it declined to 4.8 in 1999, 4.4 in 2009 and 3.8 in 2020.

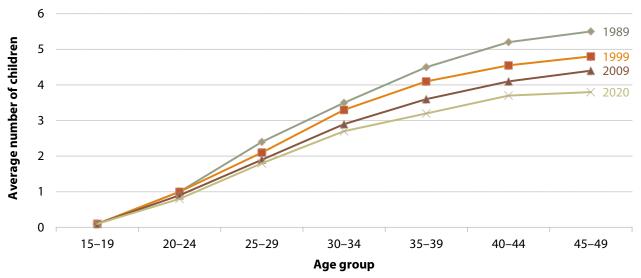


Figure 18. Female population aged 15–49 by average number of children ever born alive, Vanuatu: 1989, 1999, 2009 and 2020

The census also included questions on whether a mother's children lived in her household (HH) or elsewhere, or whether they had died (Fig. 19). The proportion of children living in their mother's HH decreased with the age of the mother because as children grow older, they leave their parents' home and form their own HH.

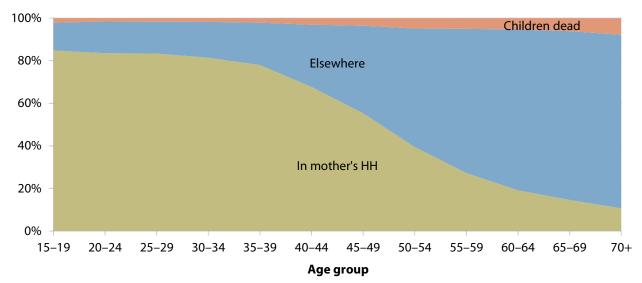


Figure 19. Proportion of children ever born, by age of mother, and whether living in the same HH as their mother, Vanuatu: 2020

From the question on the date of birth of the last-born child, a reported number of births per year or period can be calculated (Table 8).

Table 8. Reported number of births during the 1-year period before the census (1 Nov. 2019–16 Nov. 2020)⁵ by age group of women, Vanuatu: 2020

Age group of women	Number of women	Number of children	Reported ASFR (per 1000)
15–19	12,295	510	41.5
20-24	12,828	2,118	165.1
25–29	12,306	1,932	157.0

⁵ Because the census only asks for the month and the year, there is no way to distinguish between different dates in the month of November. Hence all children born in November 2019 were included.

Age group of women	Number of women	Number of children	Reported ASFR (per 1000)
30-34	10,808	1,379	127.6
35–39	8,485	717	84.5
40-44	7,575	275	36.3
45-49	6,487	59	9.1
Total	70,784	75,906	99.5

ASFR = *Age-specific fertility rate*

Responses from women during the 2020 census indicated that 7,042 children were born during the 1-year period prior to the census, between November 2019 and November 2020 (Table 8). However, this count compares with 7,869 children younger than one year of age enumerated during the census. Even the latter number is likely to be understated as most censuses under-enumerate children in this age group. This suggests that a sizeable number of women did not report the birth of their child during the year prior to the census, or did not accurately report the exact date of birth of their children.

Figure 20 shows a comparison of the uncorrected data from the last four censuses. Again, it can be seen that the fertility level of women of all ages has declined since 1989. Fertility levels have especially decreased for women aged 25–39 years, while fertility levels for women aged 15–19 and 45–49 have only marginally changed. This is not unusual because fertility decline manifests itself mostly through older women who no longer have additional children, whereas the fertility of younger women is often not affected or can even increase.

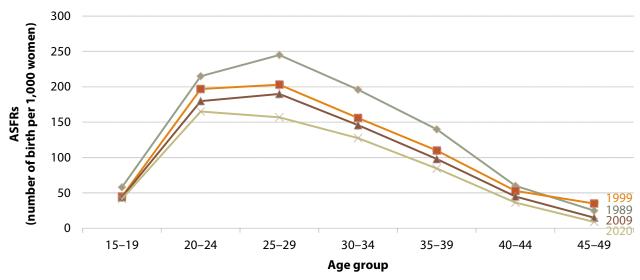


Figure 20. Reported ASFRs, Vanuatu: 1989, 1999, 2009 and 2020

It should be noted, however, that not only the 2020 data but also that from previous censuses (displayed in Figure 28) is subject to biases. The data cannot be corrected by comparing it with civil registration data, which also suffers from under-registration. According to data published by the World Bank, birth registration in 2013 was only 61% complete in urban areas and 37% in rural areas. The solution is to use so-called indirect estimation techniques. Below, three of these techniques are used to correct the 2020 data and also to provide a more complete picture of fertility trends in the past.

The first of these techniques is the relational Gompertz technique, which assumes that the statistical distribution underlying the true fertility rates can be described as a relational Gompertz curve with two parameters: one for the average timing of births and one for the tendency of births to be more concentrated or more spread out over different ages. Based on this assumption, it then compares Tables 8 and 9 to reconcile any inconsistencies.

⁶ Excludes 52 children declared by women over age 50. In some cases, these may be genuine births to older women, but many are likely to be the result of either age misstatement or the declaration of grandchildren as if they were children.

The other two methods are the Own Children method and the Luther and Cho technique, both of which use the ages of surviving children to estimate likely fertility levels in the past 15 years. These methods are similar, although the Luther and Cho methodology is more complete than the Own Children approach.

All three methods yield estimates of the demographic indicator most commonly used to describe a country's fertility situation, which is 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 ASFR. In addition to the current TFR and ASFR, the Own Children and Luther and Cho methods also provide estimates of past TFRs and ASFRs and, in the case of the latter, of some more refined fertility measures (see section 3.2.3).

Table 9 shows the results of the relational Gompertz method.⁷ The TFR of 3.66 in 2020 should be compared to a TFR of 4.1 in 2009, i.e. a 10% drop. The ASFR of women aged 15–19 was 48.8 per 1,000 in 2020 compared to 65.6 per 1,000 in 2009.

Table 9. Estimated ASFR, annual numbers of births, TFR, and mean age at childbearing (MAC), Vanuatu:2020

Age group of women	Number of women	Estimated ASFR	Estimated number of births		
15–19	12,295	48.8 per 1,000	601		
20-24	12,828	194.4	2,494		
25–29	12,306	184.9	2,275		
30-34	10,808	150.2	1,624		
35–39	8,485	99.5	844		
40-44	7,575	42.7	324		
45-49	6,487	10.7	69		
Total	70,784		8,231 ⁸		
TFR		3.66 children per woman			
MAC			28.6 years		

Finally, the national crude birth rate (CBR) can then be calculated by dividing the estimated number of births (8,231 or 8,292, depending on whether the births to women over 50 are counted) by the total 2020 census population (293,963), multiplied by 1,000. This yields a result of 28.2 per 1,000, down from 31.3 in 2009.

The relational Gompertz method provides the most accurate estimates of current fertility, i.e. fertility during the 12 months preceding the census. The Own Children method is less accurate for this purpose because it is based on the number of children aged 0 found in the census, a number which is subject to greater errors than that of children of other ages. The Own Children method does, however, provide acceptable estimates for the evolution of fertility in the past 15 years, provided that a reasonably accurate life table is available (Tables 17 and 18) and that not too many children live away from their mothers (Fig. 27). The method has some variations in terms of the details of how children are matched to their mothers. The variant used here is based on the procedure recommended by Moultrie et al.⁹ This variant is relatively easy to apply because it avoids the need to match children to their mothers at the HH level, but it does make the additional assumption that the current fertility distribution by age of mothers is reasonably close to what it was in the past.

⁷ The technical details of applying the method are not shown here. These technical details, as well as those of most of the other methods used in this chapter, are described in Moultrie T., Dorrington R., Hill A., Hill K., Timaeus I. and Zaba B. 2013. Tools for demographic estimation. Paris, IUSSP.

⁸ Excludes 61 children declared by women over age 50.

⁹ Moultrie T., Dorrington R., Hill A., Hill K., Timaeus I. and Zaba B. 2013. Tools for demographic estimation. Paris, IUSSP. Chapter 9.

The results displayed in Figure 21 show that the trend has to be smoothed somewhat because the digit attraction of age 10 exaggerates the number of children born in 2010 and underestimates the number born in 2011. After this smoothing is applied, the trend that emerges is one in which fertility increased slowly between 2005 and 2012 when the TFR reached a maximum of 4.3 children per woman. It then started a slow process of decline, dropping below 4 in 2018.

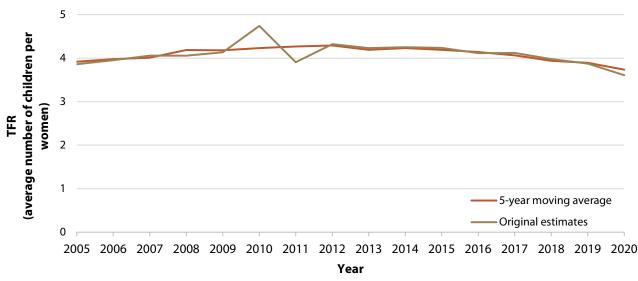


Figure 21. Estimates of TFR based on Own Children method, Vanuatu: 2005–2020

The following analysis is based on results derived using the Own Children method as it produces the most detailed information on levels and trend of fertility in Vanuatu by geographic and socio-economic background information for women in the 15-year period before the 2020 census.

Figure 22 is based on the assumption that the age pattern of fertility did not change during the period 2005 to 2020, as assumed by the Moultrie et al. variant of the Own Children method. The levels did change somewhat, first increasing and then declining, so that the fertility curve for 2017–2019 was only marginally lower than the one for 2005–2007. The highest fertility rate, as expected, was observed in the 20–24 year age category, where it was just over 200. Compare this with the estimate of 194.4 obtained by the relational Gompertz method (Table 9), which should be considered the more accurate of the two.

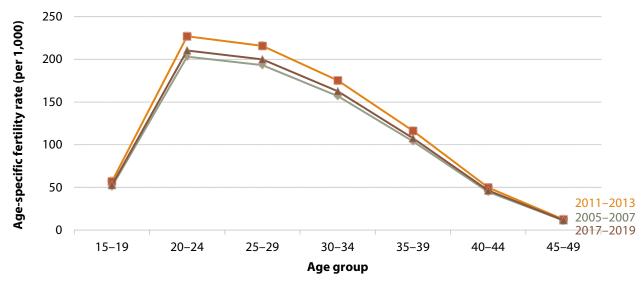


Figure 22. Estimated and adjusted ASFRs, Vanuatu: 2005–2019

3.1.2 Subnational estimates

This section contains some fertility estimates by urban-rural distinction, and by province. All estimates are based on results derived through application of the relational Gompertz method. The summary of main indicators at the beginning of the report gives various fertility indicators by place of residence.

Not surprisingly, the fertility level in urban areas was lower than in rural areas.

Furthermore, Tafea and Torba provinces, with 4.5 and 4.3 children per woman, had the highest fertility of all the provinces, and Shefa (where Port Vila is located) had the lowest TFR of 3.2 (Fig. 23).

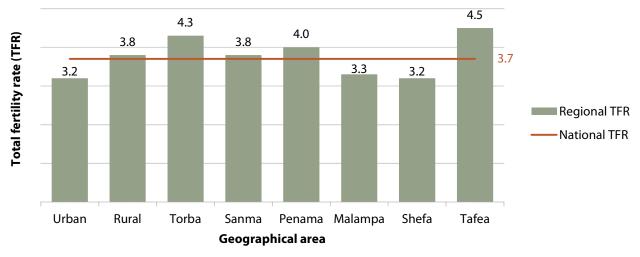


Figure 23. TFR by place of residence, Vanuatu: 2019–2020

Figures 24 and 25 show the fertility trend throughout the period 2005–2020 by urban-rural residence and by province. Figure 24 shows that the temporary increase in fertility in the middle of the period (noted above) has been mostly a rural phenomenon. Fertility in urban areas has been stable at a level of about 3, with a very slight downward trend.

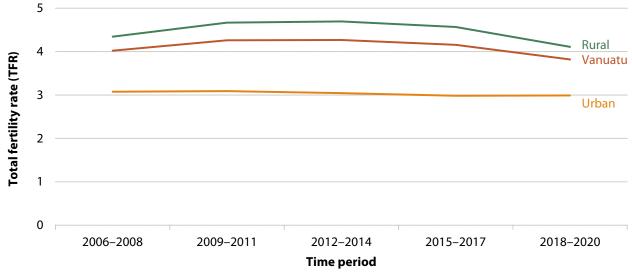


Figure 24. TFR by urban-rural residence, Vanuatu: 2005–2020

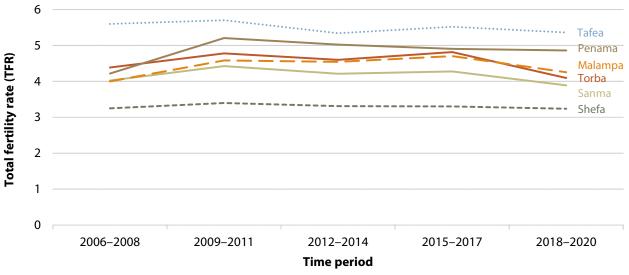


Figure 25. TFR by province, Vanuatu: 2005–2020

Figure 26 presents the adolescent (or teenage) fertility rate—the number of births per 1,000 women aged 15–19. The rate was much lower in urban (34.7) than in rural areas (53.2), and was highest in the province of Torba, where the teenage fertility rate is very high, with 66.9 births per 1,000 women aged 15–19. This is, however, considerably lower than in 2009, when it was 116.

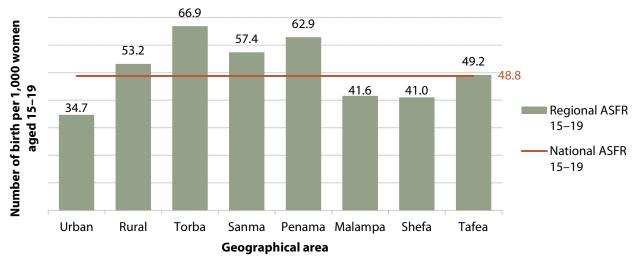


Figure 26. Adolescent fertility rate, Vanuatu: 2019–2020

The variations in the TFR between regions (urban, rural and the provinces) are partly explained by the educational characteristics of the women in each region. There is a correlation of -0.957 of the TFR with the regional school attendance rates of girls aged 6–13 years, a correlation of -0.937 with the literacy rate of 15–24 year-old women, and a correlation of -0.779 with the percentage of women 15+ years who have completed secondary education. There is also a correlation of -0.740 with the female labour force participation rate (LFPR). The teenage fertility rate is less strongly correlated with some of the same variables: -0.720 with the school attendance rate of 6–13 year-old girls, -0.640 with the percentage of women aged 15+ years who have secondary education. The latter is interesting in that it suggests a strong link between teenage fertility and the transition from primary to secondary education.

3.2. Mortality

The 2020 census asked the following questions relating to mortality:

- How many live births a woman had ever had, and how many of those born were still alive and/ or had died.
- Whether the last-born child was still alive.
- Whether a respondent's mother and father were still alive (orphanhood).
- Whether any residents of the HH had died during the 12 months prior to the census.

The question on deaths in the HH also detailed whether the deaths that occurred referred to women during pregnancy, childbirth, or up to 42 days after pregnancy, to enable an estimation of maternal mortality.

In addition, the information on marital status collected by the census specifies the number of widows and widowers, which is another element that provides an idea of adult mortality levels. This information, however, tends to be less accurate than information obtained from the orphanhood question because the bond between parents and their children is stronger and more permanent than the bond between spouses. People, particularly older men, often remarry, and information regarding the survival of their first spouse may be lost. Therefore, this information is only used illustratively.

3.2.1 National-level estimates

Questions on HH residents (age and sex) who had died during the 12 months before the census showed that 1,186 persons died in this period: 713 males, and 473 females (Table 10). Unfortunately, it is not possible to take this information at face value because it is affected by various inaccuracies. People may not correctly identify the 12-month period before the census. There is also ambiguity with respect to the concept of 'residents of the HH', which can be interpreted in various ways. Therefore, the standard methodology for estimating adult mortality uses the age pattern of reported deaths, but applies a correction factor to determine the correct level of mortality. This procedure was also followed here.

Age		2009			2020	
group	Total	Males	Females	Total	Males	Females
0-4	323	194	129	108	57	51
5—9	24	13	11	22	16	6
10–14	19	13	6	7	7	0
15–19	20	10	10	24	11	13
20-24	31	22	9	30	16	13
25–29	21	11	10	32	16	16
30-34	23	10	13	47	25	22
35–39	29	19	10	35	16	19
40-44	37	21	16	58	34	24
45–49	40	28	12	69	45	24
50-54	52	34	18	101	62	40
55–59	58	42	16	98	68	30
60–64	64	40	24	83	54	29
65–69	54	35	19	96	71	25
70+	203	132	71	375	214	161
Total	998	624	374	1,186	713	473

Table 10. Number of deaths of HH residents during the 12 months preceding the census by age and sex, Vanuatu: 2009 and 2020

Early age mortality

To estimate infant and child mortality (up to age 5), a different procedure was used, based on the reported survival of children born to women aged 15–49 years. Of all children ever born to women aged 15+ (225,051), 96.3% (216,821) were still alive, and 8,230 had died (Table 11). The proportion of surviving females was higher than that of males. While 96.6% of all female children ever born were still alive, only 96.1% of all male children had survived.

The proportion of surviving children decreases with the age of mothers (Table 11 and Fig. 27). While 98.4% of all children that were ever born to women now aged 20–24 were still alive, only 96.4% of children born to women now aged 45–49 were still alive, and only 92.2% of children born to women now aged 70+ years remained alive. This general trend is explained by the fact that as the age of mothers increases, so does the age of their children; the proportion of birth cohorts that have died rises with an increase in the age of mothers.

Age	Number of	Chilo	Children ever born			Total children dead			Total children still alive		
group	women	Total	Male	Female	Total	Male	Female	Total	Male	Female	
15–19	12,295	1,109	570	539	24	14	10	1,085	556	529	
20-24	12,828	10,764	5,615	5,149	173	88	84	10,591	5,527	5,065	
25–29	12,306	22,183	11,478	10,704	382	211	171	21,801	11,267	10,533	
30-34	10,808	28,744	14,965	13,779	522	310	212	28,222	14,655	13,567	
35-39	8,485	27,535	14,279	13,256	597	304	292	26,938	13,975	12,964	
40-44	7,575	27,772	14,497	13,276	857	443	414	26,915	14,054	12,862	
45-49	6,487	24,349	12,583	11,766	871	452	419	23,478	12,131	11,347	
50-54	5,522	21,374	11,086	10,288	1,049	585	464	20,325	10,501	9,824	
55-59	4,394	17,725	9,037	8,688	891	471	421	16,834	8,566	8,267	
60-64	3,467	14,613	7,544	7,069	794	437	356	13,819	7,107	6,713	
65-69	2,446	11,005	5,743	5,262	671	382	289	10,334	5,361	4,973	
70+	3,782	17,876	9,268	8,609	1,400	832	568	16,476	8,436	8,041	
Total	90,395	225,051	116,666	108,386	8,230	4,529	3,702	216,821	112,137	104,684	

Table 11. Female population aged 15+ by number of children ever born, number of children dead, andnumber of children still alive, Vanuatu: 2020

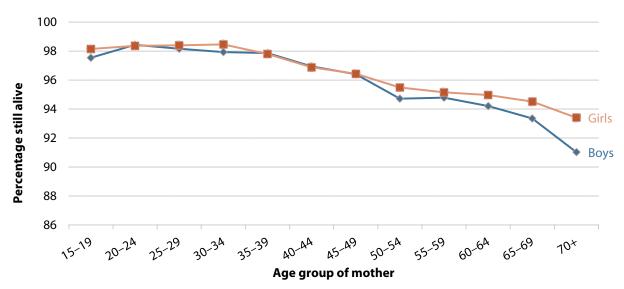


Figure 27. Proportion of boys and girls ever born and still alive, by age of mother, Vanuatu: 2020

A comparison of data on children ever born and still alive from the 1989, 1999 and 2009 census data (Fig. 28) shows continued improvement in the survival of children of women up to age 40. The proportion of children of older women, who themselves were older children at the time of the respective censuses,

increased considerably between 1989 and 2009 but seems to have deteriorated slightly between 2009 and 2020. Note that these are generally older children so their lower survival cannot be attributed to a deterioration in child health. A more likely explanation is an increase in mortality for adolescents and young adults.

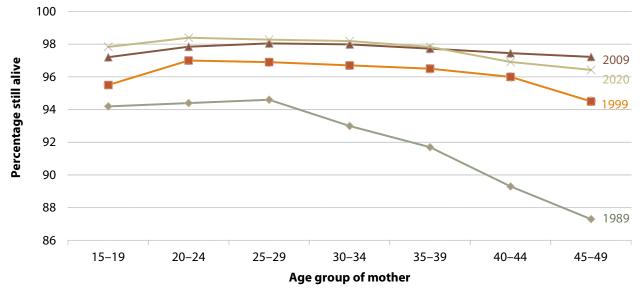


Figure 28. Proportion of children ever born and still alive, by age of mother, Vanuatu: 1989, 1999, 2009 and 2020

Using the infant and child mortality estimation techniques described in Moultrie et al. for women aged 20–24, 25–29 and 30–34, the following infant and child death probabilities were derived.

Indicator		2009		2020			
Inuicator	Total	Males	Females	Total	Males	Females	
Infant mortality rate $({}_1q_0)$	21	22	19	16	17	14	
Child mortality rate (₄ q ₁)	4	4	3	3	2	3	
Under five mortality rate $({}_{s}q_{0})$	24	26	22	18	19	17	

Table 12. Child mortality indicators, Vanuatu: 2009 and 2020

1q0 = Number of deaths of children under 1 year of age per 1,000 live births.

4q1 = Probability of dying between age 1 and age 5 (per 1,000).

5q0 = Number of deaths of children under 5 years of age per 1,000 live births.

The infant mortality rate (IMR) in 2009 was estimated at 17 for males and 14 for females, which is a significant improvement compared with 2009 when the IMR was estimated at 22 for males and 19 for females (Table 12).

Child mortality (the probability of dying between age 1 and age 5) was estimated at 2 male deaths and 3 female deaths per 1,000 people of that age in 2020. The larger probability of death for females may seem strange. However, it should be borne in mind that all of these estimates are based on very small numbers of observations, which have a significant amount of random variability. Under 5 mortality (the probability of dying between birth and age 5) was estimated at 19 for males and 17 for females per 1,000 people in 2020. The latter is also a significant improvement over 2009, when the numbers were 26 and 22, respectively.

Adult mortality

Three different approaches were applied: the generalised growth balance (GGB) method, the synthetic extinct generations (SEG) method, and the orphanhood method. The latter provides estimates for the survival of mothers from age 25 to age 35, 40, 45, 50, 55, 60, 65, 70 and 75. In the case of fathers, the survival probabilities are from age 35 to age 45, 50, 55, 60, 65, 70 and 75. The correction factor according to the orphanhood method used here is the average correction needed for each of these

survival probabilities. The results for the different methods were as follows:

GGB correction:	42% (males)	111% (females)
SEG correction:	41% (males)	118% (females)
(Average) orphanhood correction:	76% (males)	152% (females)

Note that these are very large adjustments, indicating that the reporting on deaths in the HH during the previous 12 months was not very accurate. To prepare the life tables in Tables 17 and 18, the orphanhood correction factors were applied. The GGB and SEG were not used except for their alternative estimates of correction factors. Interestingly, the GGB method also provides an estimate of the relative under-enumeration of the 2020 census relative to the 2009 estimate, which was 2.1%.

In the end it was decided to base the adult mortality estimates on orphanhood. The widowhood data shown in Table 15 was not used due to its known conceptual problems (see above).¹⁰ The orphanhood estimates have the additional advantage of being less sensitive to distortions due to migration than the GGB and SEG estimates. The construction of the 2009 life table also relied on this data, although the procedure used for their consideration in the life table was different.

Table 13. Orphanhood estimates for probabilities of death between age 25 (women) or 35 (men) andspecified ages, Vanuatu: 2020

Ма	les	Females		
10 9 35	43	₁₀ q ₂₅	14	
₁₅ q ₃₅	45	₁₅ q ₂₅	19	
₂₀ q ₃₅	75	₂₀ q ₂₅	31	
₂₅ q ₃₅	133	₂₅ q ₂₅	51	
₃₀ q ₃₅	216	₃₀ q ₂₅	82	
₃₅ q ₃₅	313	₃₅ q ₂₅	131	
40 q 35	467	₄₀ q ₂₅	183	
		₄₅ q ₂₅	273	
		₅₀ q ₂₅	420	

 $_{n}q_{v}$ is the probability of death between age x and age x+n (per 1,000).

Table 14. Population living in private HHs, by 5-year age group and whether biological father or mother is still alive, Vanuatu: 2020

Age	Number of	Fat	her still a	live	Mother still alive		
group	respondents	Yes	No	DK	Yes	No	DK
0-4	41,513	40,804	581	128	41,263	240	10
5–9	39,251	38,184	963	104	38,743	493	15
10-14	33,897	32,449	1,365	83	33,177	704	16
15–19	25,461	23,676	1,716	69	24,506	941	13
20-24	25,394	22,341	2,992	61	23,789	1,584	21
25–29	23,652	19,159	4,450	43	21,193	2,439	20
30-34	20,797	14,909	5,851	37	17,330	3,452	15
35-39	16,749	10,447	6,267	35	12,795	3,940	13
40-44	15,064	7,326	7,705	33	9,956	5,089	20
45–49	13,212	4,468	8,712	32	6,872	6,324	16

¹⁰ In 2009, the use of widowhood data was attempted but ultimately abandoned because "the data do not allow the calculation of female values because the proportion of male widowers is too small to calculate any reasonable indicators. There are two explanations for this: 1. males did incorrectly state their marital status; and 2. a high proportion of males who lost their spouse remarried, and although widowed once, were tabulated as married."

Age	Number of	Fat	ner still a	ive	Mother still alive			
group	respondents	Yes	No	DK	Yes	No	DK	
50-54	10,941	2,279	8,634	28	4,019	6,901	21	
54–59	8,737	1,030	7,699	8	2,177	6,550	10	
60–64	6,842	401	6,439	2	925	5,914	3	
65–69	4,853	165	4,683	5	394	4,455	3	
70+	7,601	154	7,423	24	277	7,317	7	
Total	293,963	217,792	75,481	690	237,416	56,342	205	

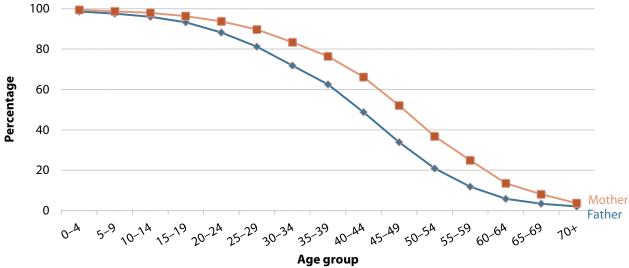


Figure 29. Percentage of respondents with father or mother still alive, Vanuatu: 2020

Table 15 shows the data on widowhood. As mentioned above, this data was not used in the construction of the life table. Nevertheless, the data on marital status (widowhood) provides interesting and valuable insights into mortality differentials between males and females. The large difference in widowed males and females points to lower mortality rates (higher life expectancy) for females than for males.

Age		Total			Widowed	
group	Total	Males	Females	Total	Males	Females
15–19	25,461	13,165	12,295	30	9	22
20-24	25,394	12,566	12,828	84	2	82
25–29	23,652	11,346	12,306	99	13	86
30-34	20,797	9,989	10,808	125	27	98
35–39	16,749	8,263	8,485	179	28	151
40-44	15,064	7,489	7,575	296	56	240
45–49	13,212	6,725	6,487	416	101	315
50-54	10,941	5,418	5,522	611	128	483
55–59	8,737	4,343	4,394	763	146	618
60–64	6,842	3,375	3,467	885	215	669
65–69	4,853	2,407	2,446	793	204	589
70+	7,601	3,819	3,782	2,200	651	1,548

Table 15. Population 15+ years by sex and widowhood, Vanuatu: 2020

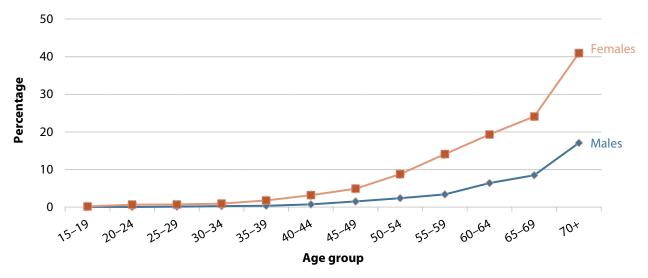


Figure 30. Proportion of population 15+ years by sex and widowhood, Vanuatu: 2020

Abridged life table

To construct a complete life table for males and females, the estimated child and adult mortality indicators need to be combined (Table 16). As mentioned above, it was decided to use the adult mortality indicators produced by the orphanhood method as the final adult mortality estimates together with the child mortality estimates as presented above.

Table 16. Child and adult mortality indicators used in the abridged life tables, Vanuatu: 2020

Indicators	Males	Females
Infant mortality rate $({}_1q_0)$	0.0170	0.0144
Child mortality (₄ q ₁)	0.0025	0.0028
Survival to age 1 (I ₁)	98,299	98,556
Survival to age 5 (I ₅)	98,058	98,281
Life expectancy at birth (e_0)	71.6	74.2
Life expectancy at age 20 (e ₂₀)	53.5	55.9

Tables 17 and 18 show the complete life tables for males and females. The life expectancies at birth of 71.6 and 74.2 years for males and females are an improvement compared to those calculated based on the 2009 census, when life expectancies at birth were only 69.6 and 72.7 years for males and females respectively.

The following elements were used to construct Tables 17 and 18:

- The observed age distribution of deaths by age and sex from 5 years of age.
- The sex-specific adjustment factors suggested by the orphanhood method to convert observed deaths into adjusted ASDRs.
- Infant and child mortality estimates based on the proportion of children surviving to women aged 20–24, 25–29 and 30–34.
- Life expectancy at age 80 as a function of I(80), according to the Princeton West model life table system, which is generally considered the most appropriate for Vanuatu.

Age	m(x,n)	q(x,n)	l(x)	d(x,n)	L(x,n)	S(x,n)	T(x)	e(x)
0	0.0173	0.0170	100,000	1,701	98,554	-	7,160,212	71.6
1	0.0006	0.0025	98,299	241	392,598	0.9970	7,061,658	71.8
5	0.0005	0.0024	98,058	238	489,696	0.9975	6,669,060	68.0

Table 17. Abridged life table for Vanuatu males: 2020

Age	m(x,n)	q(x,n)	l(x)	d(x,n)	L(x,n)	S(x,n)	T(x)	e(x)
10	0.0005	0.0026	97,820	252	488,473	0.9970	6,179,364	63.2
15	0.0007	0.0034	97,569	336	487,003	0.9957	5,690,891	58.3
20	0.0011	0.0052	97,232	510	484,886	0.9945	5,203,088	53.5
25	0.0012	0.0058	96,722	562	482,204	0.9932	4,719,002	48.8
30	0.0016	0.0078	96,160	753	478,916	0.9906	4,236,798	44.1
35	0.0022	0.0109	95,407	1,044	474,423	0.9853	3,757,881	39.4
40	0.0038	0.0186	94,362	1,754	467,427	0.9771	3,283,458	34.8
45	0.0055	0.0273	92,608	2,527	456,724	0.9634	2,816,032	30.4
50	0.0095	0.0462	90,082	4,163	440,002	0.9457	2,359,307	26.2
55	0.0129	0.0627	85,919	5,386	416,130	0.9367	1.919,305	22.3
60	0.0132	0.0640	80,533	5,156	389,775	0.9114	1,503,176	18.7
65	0.0244	0.1149	75,377	8,662	355,230	0.8449	1,113,401	14.8
70	0.0446	0.2006	66,715	13,382	300,117	0.7381	758,172	11.4
75	0.0815	0.3387	53,322	18,061	221,508	0.5164	458,054	8.6
80+	0.1491	1.0000	35,271	35,271	236,547	-	236,547	6.7

Table 18. Abridged life table for Vanuatu females: 2020

Age	m(x,n)	q(x,n)	l(x)	d(x,n)	L(x,n)	S(x,n)	T(x)	e(x)
0	0.0146	0.0144	100,000	1,444	98,773	-	7,417,654	74.2
1	0.0007	0.0028	98,566	275	393,542	0.9972	7,318,881	74.3
5	0.0004	0.0019	98,281	190	490,931	0.9981	6,925,339	70.5
10	0.0004	0.0019	98,091	183	490,000	0.9971	6,434,408	65.6
15	0.0008	0.0039	97,909	385	488,581	0.9950	5,944,048	60.7
20	0.0012	0.0061	97,524	597	486,126	0.9930	5,455,828	55.9
25	0.0016	0.0078	96,927	760	482,734	0.9900	4,969,702	51.3
30	0.0025	0.0123	96,167	1,178	477,888	0.9871	4,486,968	46.7
35	0.0027	0.0135	94,989	1,279	471,744	0.9838	4,009,080	42.2
40	0.0038	0.0190	93,709	1,781	464,093	0.9794	3,537,336	37.7
45	0.0045	0.0222	91,928	2,037	454,548	0.9676	3,073,243	33.4
50	0.0088	0.0429	89,891	3,859	439,809	0.9583	2,618,694	29.1
55	0.0083	0.0405	86,033	3,485	421,450	0.9551	2,178,885	25.3
60	0.0101	0.0494	82,547	4,078	402,541	0.9454	1,757,435	21.3
65	0.0124	0.0600	78,469	4,711	380,568	0.9068	1,354,894	17.3
70	0.0275	0.1284	73,758	9,474	345,105	0.8083	974,326	13.2
75	0.0609	0.2642	64,284	16,983	278,964	0.5567	629,221	9.8
80+	0.1350	1.0000	47,301	47,301	350,258	-	350,258	7.4

Brief explanation of a life table (Tables 17 and 18)

A life table is used to simulate the lifetime mortality experience of a population. It does so by taking that population's age-specific death rates and applying them to a hypothetical population of 100,000 people born at the same time. For each year on the life table, death inevitably thins the hypothetical population's ranks until, in the bottom row of statistics, even the oldest people die.

Column 'm(x,n)' shows the proportion of each age group dying in each age interval. This data is based on the observed mortality experience of a population. Column 'l(x)' shows the number of people alive at the beginning of each age interval, starting with 100,000 at birth. Column 'd(x,n)' shows the number who would die within each age interval. Column 'L(x,n)' shows the total number of person-years that would be lived within each age interval. Column 'T(x)' shows the total number of years of life to be shared by the population in the age interval and in all subsequent intervals. This measure takes into account the frequency of deaths that will occur in this and all subsequent intervals. As age increases and the population shrinks, the total person years that the survivors have to live necessarily diminish.

Life expectancy is shown in Column 'e(x)' – the average number of years remaining for a person at a given age interval. The first value in column 'e(x)' represents life expectancy at birth. The first value in column 'q(x,n)' represents the infant mortality rate (IMR). The second value in column 'q(x,n)' represents the child mortality rate.

m(x,n) (also written $m_x = age-specific death rate (ASDR)$

q(x,n) (also written $_{n}q_{y}$) = probability of dying between exact ages x and x+n

I(x) (also written I_x) = number of survivors at exact age x

d(x,n) (also written d_x) = number of deaths between exact ages x and x+n

L(x,n) (also written ${}_{n}L_{x}$) = number of person-years that would be lived within the indicated age interval (x and x+n) by the cohort of 100,000 births assumed

S(x,n) (also written ${}_{n}S_{x}$) = probability of surviving from one age interval to the next

T(x) (also written Tx) = total number of person-years that would be lived after the beginning of the indicated age interval by the cohort of 100,000 births assumed

e(x) (also written e_x) = life expectancy from age x

Finally, the annual number of deaths by age and sex can be calculated by multiplying the age specific -death rates – the m(x) values in column 2 of tables – by the male and female population size of each respective age group. The results are displayed in Table 22.

Table 19. Estimated number of deaths, and crude death rate (CDR) based on the life table's age-specific
-death rates (m(x)) and enumerated population size, Vanuatu: 2020

Age	Population sizes m(x,		x,n)	Esti	mated dea	ths		
Group	Males	Females	Total	Males	Females	Males	Females	Total
0	4,010	3,951	7,961	0.0173	0.0146	69	58	127
1-4	17,386	16,252	33,638	0.0006	0.0007	11	11	22
5–9	20,524	18,909	39,433	0.0005	0.0004	10	7	17
10-14	18,028	16,707	34,735	0.0005	0.0004	9	6	16
15–19	14,875	14,104	28,979	0.0007	0.0008	10	11	21
20-24	12,739	13,002	25,741	0.0011	0.0012	13	16	29
25–29	11,815	12,418	24,233	0.0012	0.0016	14	20	33
30-34	10,064	10,857	20,921	0.0016	0.0025	16	27	43
35-39	8,489	8,501	16,990	0.0022	0.0027	19	23	42
40-44	7,516	7,587	15,103	0.0038	0.0038	28	29	57
45–49	6,744	6,501	13,245	0.0055	0.0045	37	29	66
50-54	5,432	5,530	10,962	0.0095	0.0088	51	49	100
55-59	4,356	4,397	8,753	0.0129	0.0083	56	36	93
60-64	3,381	3,474	6,855	0.0132	0.0101	45	35	80
65–69	2,411	2,447	4,858	0.0244	0.0124	59	30	89
70–74	1,405	1,375	2,780	0.0446	0.0275	63	38	100
75–79	1,218	1,118	2,336	0.0815	0.0777	99	68	167
80+	1,204	1,292	2,496	0.1491	0.1350	180	174	354
Total	151,597	148,422	300,019	-	-	789	668	1,458
Crude De	ath Rate (Cl	DR)				5.2	4.5	5.0

The above mortality indicators clearly show more positive mortality indicators for females than for males, with females living longer on average (about three years longer) than males (Table 18). The findings are supported by the following data:

- The proportion of surviving female children was higher than surviving male children (Fig. 27).
- More mothers than fathers survive to older ages (Fig. 29).
- The proportion of widowed females was considerably higher than that of widowed males (Fig. 30), indicating earlier death of male spouses.

3.2.2 Subnational estimates of mortality

This section contains some mortality estimates by urban-rural distinction, and by province. A general observation is that all mortality indicators show better values in urban than in rural areas, and that females are better off than males, although there are some exceptions to the overall trend as shown below.

The summary of main indicators at the beginning of this report presents various mortality indicators by sex and place of residence, with figures showing the results visually.

Children of mothers living in urban areas, and/or the province of Shefa and to a lesser extent Sanma, have a higher probability of survival than children of women living in rural areas (Fig. 31). Compared to the national average, children of mothers living in Torba or Malampa had the lowest probability of survival. A higher proportion of female than male children ever born have survived.

Of the population aged 60+ years, more females (28.9%) were widowed than males (11.1%). The proportion of males and females 60+ who are widowed was highest in the province of Torba (Fig. 32). The proportions widowed were considerably higher in rural than in urban areas. When interpreting the results, it should be noted that in Vanuatu, males are usually older than their spouses by about 3 years.

Figure 48 shows the proportions of the population orphaned, which means that either their biological father or mother has died. On average, 25% of the population responded that their father had died and 19.2% responded that their mother had died. Clearly mothers survive to older ages than fathers. However, as mentioned before, fathers are usually older than mothers because of their age difference at marriage. In general, the proportion of the population orphaned was higher in rural than in urban areas, and it was particularly high in Penama and Malampa.

Fortunately, the infant mortality rate (IMR), one of the most important mortality indicators, has decreased since the last census in 2009 and stands at 19 (male) and 17 (female) infant deaths per 1,000 live births (Fig. 34). In general, the IMR of males is higher than that of females, with the exceptions of the provinces of Torba, Penama and Tafea. These are also the provinces with the highest IMR in general. The IMR is significantly lower in urban than in rural areas. One likely important factor is better access to (reproductive) health services.

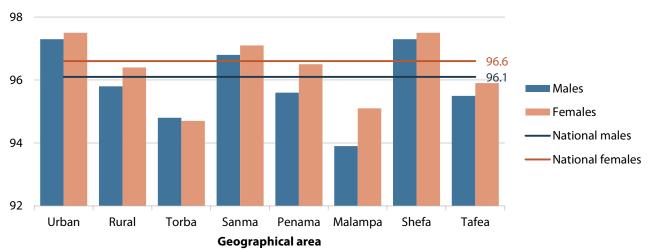


Figure 31. Proportion of children ever born and still alive by sex and place of residence, Vanuatu: 2020

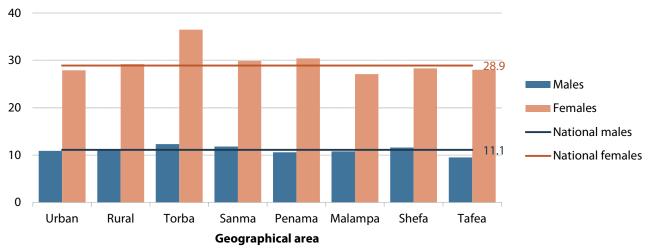


Figure 32. Proportion of population 60+ years widowed, by sex and place of residence, Vanuatu: 2020

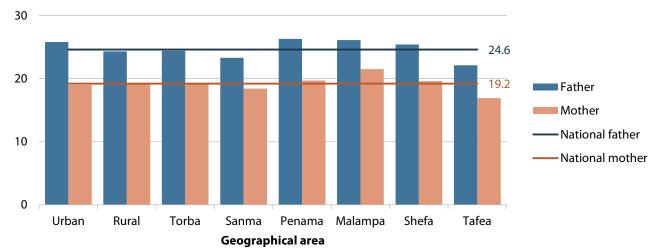


Figure 33. Proportion of population with father or mother dead (orphaned) by place of residence, Vanuatu: 2020

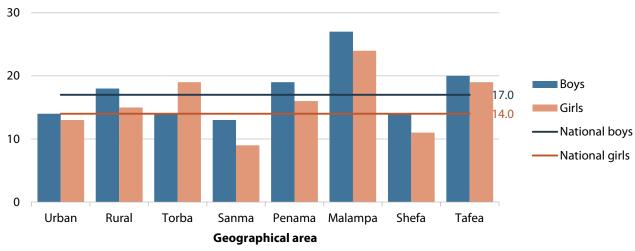


Figure 34. Infant mortality rate (IMR) by sex and place of residence, Vanuatu: 2020

The variations of the IMR and under 5 mortality between regions (urban, rural and the provinces) are partly explained by the educational characteristics of women in each region, although the correlations are smaller than in the case of fertility. Because the results for the IMR are almost identical to those for under 5 mortality, the following will focus on the latter. There is a correlation of -0.666 of under 5 mortality with the percentage of women over 15 who have completed secondary education, and

0.541 with the percentage who have completed primary education. Again, this is the same pattern that was found in the case of the TFR. There are also negative correlations with literacy rates in English and indigenous language, and a correlation of -0.499 with the male LFPR.

3.2.3 Maternal mortality

The 2020 census reported a total of 58 pregnancy-related deaths, i.e. deaths of women of reproductive age that occurred during pregnancy, childbirth, or up to 42 days after childbirth. Strictly speaking, this is not the same as maternal mortality because women may die during this period due to reasons unrelated to their pregnancy, but this is relatively unlikely. Hence, pregnancy-related deaths are usually equated with maternal deaths.

Given that there were an estimated 8,292 births during 2020, the uncorrected estimate of the maternal mortality ratio in 2020 would be 699 per 100,000 births. This is almost certainly wrong, given that the accepted estimates of maternal mortality, based on regression models, are in the order of 70 per 100,000.

A closer look at the pregnancy-related deaths reported in the census reveals that of the 58 reported deaths, only 12 occurred in the 15–49 year age category. In particular, 24 reported deaths were in the 0–4 year age category, suggesting that these were infant deaths rather than maternal deaths. If the reported 12 were correct, it would lead to a maternal mortality estimate of 145 per 100,000 births. Even this is probably too high. The expected number of pregnancy-related deaths is in the order of 4–7. Consequently, it is probably better not to use census data to estimate maternal mortality as the numbers of deaths are too small and insufficiently accurate for estimation purposes.

3.3. Integrated estimation of fertility and mortality

A limitation of the approaches discussed in the previous sections is that they use part of the information collected in the census to derive either fertility or mortality estimates. For example, the child mortality estimates in section 3.2 use information on the proportion of surviving children, but as they do not include any information on fertility trends in the past, they have to use models with certain implicit assumptions about when exactly children of women of a certain age were born. The Own Children method, on the other hand, provides detailed information on the surviving children born in specific years to mothers of a specific age. However, converting this information into actual fertility estimates requires relying on certain assumptions about mortality, or at least on mortality estimates that were generated externally.

This section will employ a different method, using a broader set of census data on both fertility and mortality to derive fertility and infant and child mortality estimates simultaneously, thereby producing a more consistent picture of both components. The Vanuatu census is ideally suited to this approach because it asked a wide range of questions on children ever born, children surviving, date of birth and survival of the last child, age of the mother when her first child was born, whether the child lives in the HH and, if so, who among the females in the HH is his/her mother, in addition to the sex and age of all the children. This allows a fairly accurate reconstruction of women's birth histories and the survival of their children. The method was originally introduced by Luther and Cho¹¹ and can be thought of as an extension of the original Own Children method. Here, it has been slightly modified to take advantage of some data that are available in the Vanuatu census but that cannot always be counted on in other censuses.

The method is as follows:

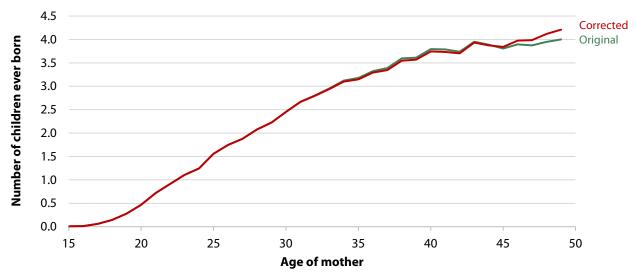
1. Identify all women, by age, who during the past 15 or 20 years at one point belonged to the 15–49 age group, i.e. all women now aged between 15 and 64 or 15 and 69 years, regardless of whether they have had children or not. Compute their number of person-years lived, tabulated by age and calendar year. These will become the denominators for the estimated fertility rates.

¹¹ Luther N.Y. and Cho L-J. 1988. Reconstruction of birth histories from census and household survey data. Population Studies, Vol. 42, No. 3: 451–472. DOI: <u>https://doi.org/10.1080/0032472031000143586</u>

- 2. Count all children in the population under age 20, by age and sex, who declare that their mother is alive but not living in the same HH. This distribution will later be used to assign children not living in the HHs of their mothers to their most likely years of birth.
- 3. Using the HH listing, and specifically the information that indicates the line numbers of mothers, identify the children living in each HH who can be assumed to be children of a particular woman identified in 1. with their date of birth and sex. If the data is correct, the number of such children (by sex) should be equal to the number declared in the woman's census birth history as survivors currently living in the same HH. In the case of Vanuatu, some inconsistencies were found, which were resolved during the data processing phase.
- 4. Determine the sex, date of birth and survival status (alive or dead) of the last-born child, based on the information provided in the census birth history. If the child survived and lives in the HH, his or her sex and date of birth should coincide with those found in 3. and there should be no siblings living with the mother who have a lower age than this child. If younger children are found, correct the data on the last-born child (see next section).
- 5. Using the information on the age of the mother at first birth, identify the first-born child. If this child still lives in the HH, his or her sex and survival status (in this case, alive) are known. In some other cases (about a third of the children not assigned so far, in the example of the Vanuatu data), there will only be one child not yet accounted for under 3. or 4.. In such cases, the sex and survival status of the first-born child can be inferred. In still other cases (about 18%, in the example of the Vanuatu data), all the children that have not yet been assigned are of the same sex and survival status, in which case the sex and survival status of the first born is also known. In the remaining cases (slightly less than half), the year of birth of the first-born child is known (up to a difference of one year at most), but there is some uncertainty about which of the thus far unassigned children this year of birth refers to. This is dealt with by assigning all of the unassigned children proportionally. For example, if two boys and one girl remain to be assigned, the first-born will have a weight of 2/3 boy and 1/3 girl. In the case where some of the children have died, a possibility is to weight these children somewhat more heavily than the surviving children because the longer ago the first birth occurred, the more likely it is that this child has died.
- 6. As mentioned above, 85–90% of birth histories can be reconstructed in steps 2. to 5. For the last 10–15%, fill the remaining 'slots' in the birth history, between the first-born and last-born child proportionally, according to the number of children not yet assigned. These slots refer to children of intermediate birth orders who either died or moved out of the HH. Obviously, the lack of information on the dates of birth of these children introduces some uncertainty into the estimation process, but it is relatively minor. The procedure combines two pieces of information, namely the numbers by sex and survival status of the children not yet accounted for within each individual HH, and the relative frequency of surviving children by age and sex within the population declared as not living with their mothers (as determined in 2.). These data are made compatible by means of an algorithm (not discussed here).
- 7. The same age and sex-specific adjustment factor found for the surviving children is then also applied to the children who died. In this case, there is no external standard to which the total number of deceased children have to conform. Instead, the dead children are assigned to the available slots according to an a priori distribution that gives more weight to earlier than to more recent years, the reasoning being that children are more likely to have died in the past than more recently. Strictly speaking, this requires a life table. However, the method is not particularly sensitive to which life table is used. In the Vanuatu example, a Princeton model West life table, with a life expectancy of 70 years, was adopted. However, the results do not change greatly if the imbalance in the distribution of children who died by year of birth is simply ignored.
- 8. Sum the births in each reconstructed birth history, by year, age of the mother, age of the child, and the child's survival status by the number of women's person-years computed in 1. to obtain age-specific birth rates, and proportions of children who died, by age of the child.

Because some of the births in each reconstructed birth history are stated only in terms of fractions, strictly speaking it is not possible to classify births by birth order. It is possible, however, to derive

approximate birth rates by birth order by summing the births in each reconstructed birth history up to the relevant parity. For example, in a reconstructed birth history with one confirmed birth in the first year, one in year 6, and a confirmed last birth in year 10, with fractions of 0.3, 0.5 and 0.5 in years 2, 3 and 4, the birth in year 1 is clearly a first birth, whereas the births in years 2 and 3 should be classified as second-order births and the one in year 4 should be divided between second (0.2) and third-order (0.3) births.



Applying this procedure to the microdata from the 2020 census gave the following results.

Figure 35. Average number of children ever born by age of the mother, according to the original data and according to reconstructed birth histories (smoothed by 5-year moving average), Vanuatu: 2020

Figure 35 depicts the average number of children ever born according to the original data and the adjusted data from the approximate reconstruction of birth histories. The differences are very small, except for the 45–49 year age group, where the reconstructed birth history data suggest a slightly higher mean parity. It should be borne in mind, however, that the actual underestimation of the original mean parities may be worse than suggested by Figure 35 because the approximate birth history reconstruction method cannot correct for the differential omission of children that died long ago and at very young ages.

Figure 36 shows the ASFRs for the periods 2001–2005, 2006–2010, 2011–2015 and 2016–2020. The age pattern of fertility has shifted slightly to younger ages, but overall fertility in 2016–2020 was still slightly higher than in 2001–2005 as there appears to have been an increase in fertility between 2000 and 2011.

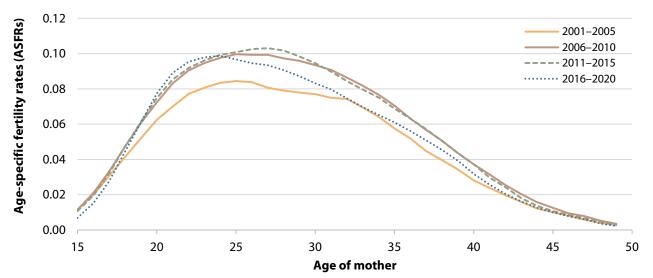


Figure 36. ASFRs for the periods 2001–2005, 2006–2010, 2011–2015 and 2016–2020 (smoothed by 5-year moving average), Vanuatu: 2020

Figure 37 disaggregates the 2016–2020 figures of Figure 36 by birth order. As expected, the curves for each successive birth order are lower, except for the 5+ curve which counts not only fifth births, but also sixth, seventh, etc. births. The average age of mothers at first birth is 23.1 years. The average ages for second and higher birth orders are: 26.7 years (second births), 29.8 years (third births), 32.3 years (fourth births) and 36.1 (fifth and higher birth orders). Note that these ages are fairly evenly spaced. Note also that only about 5% of women have had a fifth or higher order birth by age 30.

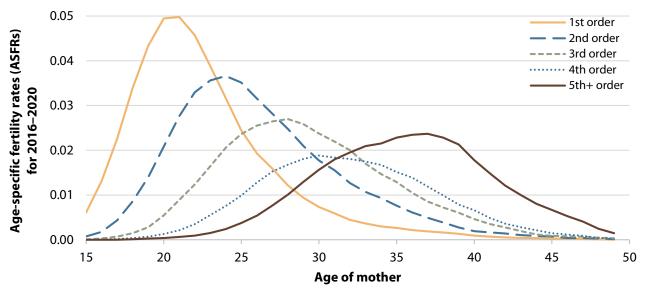


Figure 37. ASFRs for 2016–2020, disaggregated by birth order (smoothed by 5-year moving average), Vanuatu: 2020

Figure 38 shows the evolution of the TFR overall and by birth order. It suggests that fertility actually increased between 2000 and 2011 and thereafter started a slow decline, particularly as the number of births of fifth or higher orders diminished.



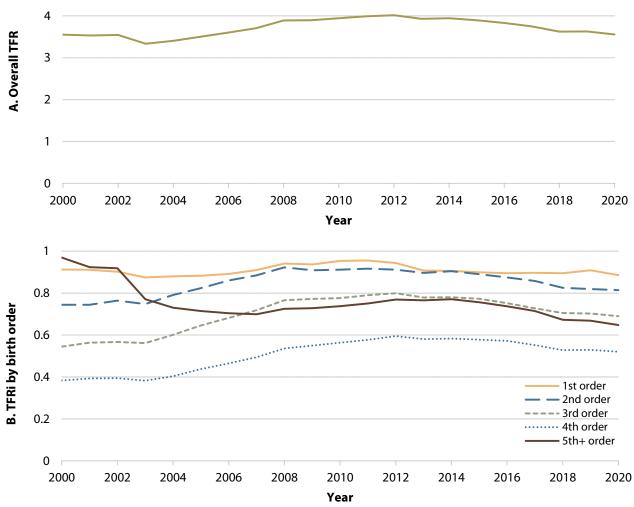


Figure 38. Evolution of TFR overall and by birth order, Vanuatu: 2020

Figure 39 shows the proportion of boys and girls dead by current age x. This corresponds to the value of $1 - {}_{r}L_{x}/\ell_{o}$ in a life table, except for the fact that children of different ages x belong to different cohorts. To analyse whether mortality has increased or decreased during the 20-year period, it is necessary to assume some model pattern of mortality to make these values comparable. On the whole, the series looks plausible, except that in the age range from 15–20, the proportion of dead girls is ahead of the proportion of dead boys, when one would expect male mortality during these ages to be higher than female mortality.

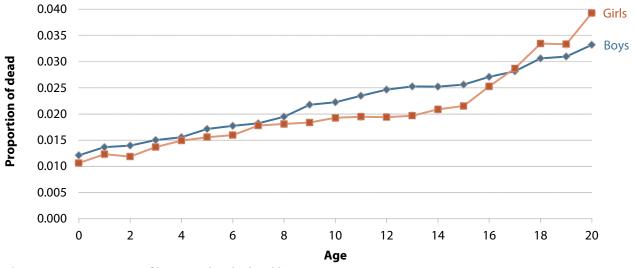


Figure 39. Proportion of boys and girls dead by current age x, Vanuatu: 2020

Figure 40 transforms the proportions of children dead shown in Figure 39 into estimates of under 5 mortality. This transformation is based on the West mortality pattern of the Princeton model life tables. Apart from a slight dip in female life expectancy in 2019 and 2020, Figure 40 shows a steady decline in under 5 mortality. The final estimate for 2020 is somewhat lower than in Tables 17 and 18. This is because the latter were computed using the proportion of surviving children in different age groups. The procedure does not capture the current mortality level, but rather the level as it was a few years before the census. The crossover between male and female mortality levels, which was also evident in Table 39, continues. Not too much importance should be attached to that as generally the method is not considered reliable beyond the previous 15 years.

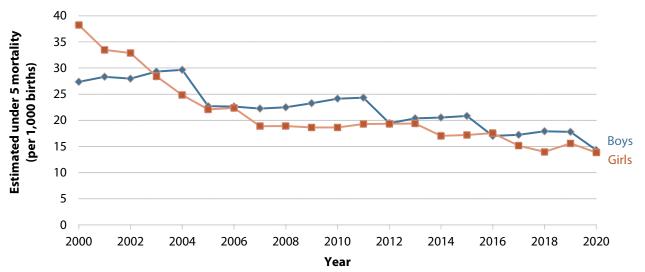


Figure 40. Transformation of the values in Figure 39 into estimates of average under 5 mortality between 2020 and different years in the past, using Princeton West model life tables, Vanuatu: 2020

3.4. Migration

3.4.1 Internal migration

Internal migration—the movement of people from one island or region of Vanuatu to another—can be estimated by comparing:

- place of usual residence with place of residence during the census enumeration; and/or
- place of residence 5 years prior to the census with place of residence during the census enumeration; and/or
- place of birth with place of residence during the census enumeration; and
- population size of geographic units from one census count to the next.

Usual place of residence

Based on the question regarding place of usual residence, 98.4% of the total population answered that their place of enumeration was also their place of usual residence. Only about 1.6% were enumerated at a place different from their usual place of residence (Table 20). Less than 0.2% of the population had their usual place of residence overseas; most of these respondents were enumerated in the urban areas of Shefa (Port Vila).

Place of residence	Usual place of residence				
at the time of the	Same as place of	Elsewhere			
census	enumeration	In country	Overseas		
Urban	64,018	1,610	240		
Rural	225,315	2,565	215		

Place of residence	Usual place of residence				
at the time of the	Same as place of	Elsewhere			
census	enumeration	In country	Overseas		
Torba	11,002	203	10		
Sanma	58,960	628	65		
Penama	33,722	381	20		
Malampa	41,125	344	37		
Shefa	99,938	2,342	289		
Tafea	44,587	277	35		
Vanuatu	289,333	4,175	455		

Residence 5 years prior to the census

Based on the question regarding place of residence 5 years prior to the census (in 2015), 78.5% of the total population aged 5 and older answered that they had not moved from their current (November 2020) place of residence, 21.0% (52,891 people) said they lived elsewhere in Vanuatu, and 1,274 people (0.5%) said they were overseas 5 years ago (Table 21). Please note that 'elsewhere in Vanuatu' includes places in the same province as the place of enumeration, i.e. people moved within their own province.

Table 21. Population 5+ years living in private HHs, by place of enumeration and usual residence 5 yearsago (in 2015), Vanuatu: 2020

Place of residence		Usual place of residence 5 years ago				
at the tir	ne of the	Same as place of	Elsewhere			
census		enumeration	In country	Overseas		
Urban	57,695	41,591	15,108	950		
Rural	194,755	156,581	37,783	324		
Torba	9,593	8,930	618	45		
Sanma	51,088	47,074	3,798	156		
Penama	28,861	22,709	6,107	30		
Malampa	35,864	30,132	5,640	79		
Shefa	89,422	61,692	26,784	920		
Tafea	37,623	27,634	9,987	44		
Vanuatu	252,450	198,172	52,891	1,274		

Table 22 presents data on provincial migration. Here, movement is measured in terms of changing from one province to another, and excludes movements inside the same province. The main inter-provincial migratory movements during the period were from Malampa (especially Paama) to Shefa (1,321), and from Sanma and Tafea to Shefa. Outside of Shefa province, the largest migration stream was from Penama to Sanma (836). There was also a significant return migration stream from Shefa to Malampa.

Shefa had a net gain of 9 people from Torba province (94 minus 85), a net gain of 408 people from Sanma (1,006 minus 598), a net gain of 395 people from Penama (800 minus 405), a net gain of 713 from Malampa (1,321 minus 608), and a net gain of 355 people from Tafea (1,033 minus 678). Overall, Shefa gained 1,880 people from all other provinces during the 5-year period prior to the census (Table 22).

Penama, on the other hand, had a net loss of 1,000 people to all other provinces, Malampa a net loss of 740 people and Tafea a net loss of 369 people. Sanma had a modest migratory surplus (228) and Torba was practically migration-neutral (Table 23).

Clearly, internal migration during the 5-year period 2015–2020 was primarily directed towards Shefa province, and certainly to the capital Port Vila, even though its growth has decreased considerably. The negative migration balance for Tafea is somewhat unexpected, given the high growth rate of the province in recent years.

Place of r at time o		Usual place of residence 5 years ago						
Province	Total	Torba	Sanma	Penama	Malampa	Shefa	Tafea	Overseas
Torba	9,610	9,304	127	25	14	85	10	45
Sanma	50,911	105	48,894	836	259	598	63	156
Penama	28,932	11	230	28,163	62	405	31	30
Malampa	35,993	30	232	59	34,954	608	31	79
Shefa	88,684	94	1,006	800	1,321	83,510	1,033	920
Tafea	37,679	20	38	19	44	678	36,836	44
Vanuatu	251,809	9,564	50,527	29,902	36,654	85,884	38,004	1,273

Table 22. Population 5+ years living in private HHs, by place of enumeration and province of usualresidence 5 years ago (in 2015), Vanuatu: 2020

The fields in yellow correspond to people who either did not change their residence or moved within the same province.

Table 23. Inter-provincial migration during the 5-year period prior to the 2020 census, Vanuatu:2015–2020

Province	In-migrants	Out-migrants	Net migrants
Torba	261	260	1
Sanma	1,861	1,633	228
Penama	739	1,739	-1,000
Malampa	960	1,700	-740
Shefa	4,254	2,374	1,880
Tafea	799	1,168	-369
Vanuatu	8,874	8,874	0

Figure 41 shows the age profile of migration in three provinces: Penama, Malampa and Shefa. The former two have the most negative migration balances, and the latter has the most positive migration balance. Apart from the difference in levels, there are also some differences in age patterns. In all three, there is a not very pronounced peak in the 20–29 year age group, which is typical as these are the peak ages for labour migration. In Shefa, the proportion declines slowly after age 25, whereas in Penama it is essentially constant with age, with a modest uptick in the highest age groups due to return migration. In Malampa, the proportion declines more perceptibly after age 35, but here too there is a modest increase after age 70 due to retired workers returning to their areas of origin.

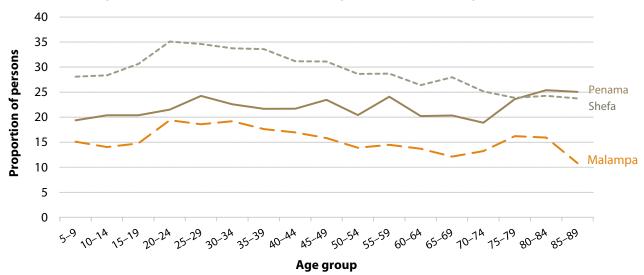


Figure 41. Proportion of persons in Penama, Malampa and Shefa provinces who did not live at their current residence 5 years ago, by age group, Vanuatu: 2020

A similar question was asked for the 1-year period preceding the census. The results were rather different from those in Table 23, as shown in Table 24 below. Shefa province, which historically has been the main destination of inter-provincial migration, appears to have recently started to lose population through migration. The same is also true of Sanma province. The other provinces, which historically were net out-migration regions, have started to show modest positive migration balances, particularly Penama province. It is risky to draw firm conclusions based on such a short-term trend, but it may be that this is the harbinger of a more enduring change in inter-provincial migration patterns in Vanuatu.

Table 24. Inter-provincial migration during the 1-year period prior to the 2020 census, Vanuatu:	
2019–2020	

Province	In-migrants	Out-migrants	Net migrants
Torba	94	76	18
Sanma	413	671	-258
Penama	533	324	209
Malampa	499	436	63
Shefa	1,030	1,129	-99
Tafea	363	296	67
Vanuatu	2,932	2,932	0

Place of birth (lifetime migration)

Almost 81% (238,000 people) of Vanuatu's population were living at the same place they were born in; 18.0% (52,992 people) were born in Vanuatu but not at their current (November 2020) place of residence; and just under 1.0% (2,936 people) of the population were born overseas (Table 25).

Place of residence		Place of birth				
at the tir	ne of the	Same as place of	Elsewhere			
census		enumeration	In country	Overseas		
Urban	65,846	44,245	19,403	2,198		
Rural	228,082	193,755	33,589	738		
Torba	11,214	8,792	2,394	28		
Sanma	59,645	48,576	10,646	423		
Penama	34,121	30,349	3,731	41		
Malampa	41,504	37,806	3,631	67		
Shefa	102,546	70,222	30,019	2,305		
Tafea	44,898	42,255	2,571	72		
Vanuatu	293,928	238,000	52,992	2,936		

Table 25. Population living in private HHs by place of residence and place of birth, Vanuatu: 2020

More than a quarter (83,069) of the population was born in Shefa province, 19.2% (56,343) in Sanma, 17.1% in Tafea (50,412), 16.5% in Malampa (48,459), 13.6% in Penama (40,123) and just under 4% in Torba (Tables 25 and 29). Note that, unlike Table 22, Table 26 also provides information on persons who were born in a place of residence different from their present place of residence but within the same province. In Table 22, these persons were summed to those who never migrated.

The vast majority of the overseas-born population lived in Shefa.

It is interesting to note that 34.9% of the population lives in Shefa today, while only 28.3% of the total national population was born there. Overall, just over 75% of Shefa's population was born in Shefa, while more than 90% of the population of the other provinces was also born there, except in Sanma where it was 85.2%.

Therefore, data on lifetime migration (number of people by place of residence and place of birth) indicates that the direction of internal migration flows was mainly towards Shefa province. However, as Table 24 suggests, this situation may be changing.

Place of r at time o		Place of birth							
Province	Total	Torba Sanma Penama Malampa Shefa Tafea						Overseas	
Torba	2,422	1,268	726	141	86	141	32	28	
Sanma	11,051	902	2271	3178	2,245	1,736	296	423	
Penama	3,771	85	913	1,693	217	753	69	41	
Malampa	3,697	51	682	267	1,061	1,452	117	67	
Shefa	21,287	492	2,977	4,419	6,927	7,578	6,589	2,305	
Tafea	2,615	11	98	76	117	1,187	1,054	72	
Vanuatu	54,843	2,809	7,667	9,774	10,653	12,847	8,157	2,936	

Table 26. Migrants by provincial place of residence in 2020 and province of birth (lifetime migration),Vanuatu: 2020

Based on the above data, it can be seen that Shefa had a net gain of 16,135 people, mainly from Malampa and Tafea. The only other province that had a net gain of people was Sanma, with 2,961 people, mainly from Malampa and Penama (Table 27).

Province	In-migrants	Out-migrants	Net migrants
Torba	1,126	1,541	-415
Sanma	8,357	5,396	2,961
Penama	2,037	8,081	-6,044
Malampa	2,569	9,592	-7,023
Shefa	21,404	5,269	16,135
Tafea	1,489	7,103	-5,614
Vanuatu	36,982	36,982	0

Comparing the population size of geographic areas in 2009 and 2020

While the data above shows that, in general, the provinces of Sanma and Shefa with their urban centres, Luganville and Port Vila, were the main recipients of migrants, a closer look at the population growth rates of ACs shows that these rates varied widely for provincial geographic units.

It can be safely assumed that places with a population growth rate significantly above the national average of 2.3% benefited from a net inflow of migrants, whereas places significantly below the national average suffered from population loss due to migration.

While the province of Tafea, with an annual growth rate of 3.1%, had the highest growth rate of all provinces, there were a number of ACs in Tafea that did not benefit from the overall growth or that had growth rates well below the national average, such as Futuna (-0.3%), South Erromanga (0.9%), North Tanna (0.9%) and Whitesands (1.4%). Elsewhere in the province, and particularly in the other ACs of Tanna, growth since 2015 has been brisk as a result of investments in infrastructure and reconstruction after TC Pam.

Population balancing equation

The absolute numbers in Table 23 can be converted into annual rates over the 2015–2020 period by relating them to the estimated provincial populations in 2017. The result of this conversion is a net inter-provincial migration rate of 0% for Torba, 0.08% for Sanma, -0.58% for Penama, -0.36% for Malampa, 0.38% for Shefa and -0.17% for Tafea.

Another, more approximate method for estimating net migration rates – in this case for the 2009–2020 period – is to suppose that, in the absence of migration, all provinces would have grown according to the national growth rate. Hence, the difference between the provincial and national growth rate must be due to migration. The assumption is not entirely correct because there are also differences in

natural growth rates due to varying levels of fertility and mortality, which should ideally be taken into account. However, in its simplified version, without considering variations in natural growth rates, the method provides at least an approximation for net inter-provincial migration rates between censuses. The resulting estimates are shown in Table 28.

According to these results, Shefa gained 249 people annually, Tafea 327, and Sanma 170. Malampa lost 367, Penama 313 and Torba 54 people per year. Relative to the population size of each province, the migration rates are as follows: Shefa gained 0.27% of its population through migration, Tafea 0.84% and Sanma 0.32%; Malampa and Penama lost 0.93 and 0.94% and Torba 0.52% annually.

The results are not entirely in accord with those obtained from Table 23. On the one hand, this may be due to the different time periods, but it may also be due to the inherent biases of the method used for computing Table 28. In particular, the high in-migration rate found for Tafea may be partly due to the fact that Tafea has higher fertility than the rest of the country.

	Torba	Sanma	Penama	Malampa	Shefa	Tafea	Vanuatu
Annual net migrants	-54	170	-313	-367	249	327	0
Annual net migration rate	-0.52	0.32	-0.94	-0.93	0.27	0.84	0.00

Table 28. Estimates of annual net migration by province, Vanuatu: 2009–2020

3.4.2 International migration

International migration refers to people who cross national boundaries to move to another country. In addition to this spatial consideration, time also plays a major role in the analysis of migration. People are usually regarded as migrants only after spending a minimum period of time in their country of destination. Usually the minimum time required to qualify as a migrant is half a year in-country, and sometimes even a full year. Someone coming for a short visit is not considered to be a migrant. They are considered to be visitors or tourists.

Intent is also of crucial importance as migration usually involves a person changing their permanent residential address in pursuit of employment or educational opportunities. The need to consider time and intent highlights one of the key problems concerning migration. Whether or not a particular person qualifies as a migrant can only be established after a certain period of time. Usually at least six months is required to determine whether an arriving or departing person qualifies as a visitor or migrant.

Due to these conceptual issues, migration in general, and international migration in particular, may be difficult to measure. For example, the fact that a person resided abroad 5 years ago and is presently living in Vanuatu does not necessarily mean that he or she is an immigrant; this depends on the person's intention to stay in the country.

While taking into account these caveats, it should be noted that the number of foreign-born in Vanuatu stayed almost the same between the 2009 and 2020 censuses: 2,949 in 2009 and 2,936 in 2020. The number of persons living abroad 5 years before the census diminished from 1,618 to 1,273.

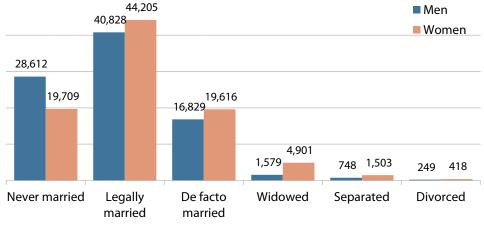
These numbers are hard to interpret without knowing the number of emigrants from Vanuatu. To estimate net migration, one can use the residual method, i.e. comparing the natural growth rate (births minus deaths) with overall growth. Thus, the overall annualised growth rate for Vanuatu between 2009 and 2020 was 2.28%, while the natural growth rate was 2.04%, suggesting that 0.24% of total growth was due to net migration. If true, this indicates a reversal in migration trends from the 1999–2009 period when the net immigration rate was negative (-0.30% per year). Considering that there has not been a major increase in the number of immigrants, the explanation would appear to be that emigration rates diminished considerably. The results of this computation, however, should be interpreted with caution as they are very sensitive to minor errors in the computation of the crude birth rate (CBR) or CDR.

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4. SOCIAL CHARACTERISTICS

4.1. Marital status

At the time of the 2020 census, 46.0% of males (40,828) and 48.9% of females (44,205) aged 15+ were legally married, and 18.9% of males and 21.7% of females were living in a de facto relationship (Fig. 42). The proportions never married (single) were 32.2% of males (28,612) and 21.8% of females (19,709). A higher proportion of females (5.4%) were widowed than males (1.8%).



Marital status

Figure 42. Population aged 15+ by marital status, Vanuatu: 2020

It should be pointed out that the larger number of legally (44,205) or de facto married (19,616) women compared to men (40,828 and 16,829) is logically inconsistent unless there is a large number of married men living abroad without their spouses, which is unlikely to be the case. This phenomenon is not uncommon in population censuses. It may reflect the fact that women who are separated from their spouses, or even divorced or widowed, often still consider themselves married. The much larger number of widows compared to widowers is due in part to the higher mortality of men but also to the fact that widowed men are more likely to remarry than widowed women. It may also be due to some extent to the fact that women who were divorced or separated from a spouse who subsequently died often declare themselves as widows, rather than divorced or separated. Nevertheless, the number of divorced or separated women is larger than the number of men in that situation, again due to the fact that both the mortality and the remarriage rates of divorced or separated men are higher than those of women.

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 (Table 29). The average age at marriage was 25.5 for males and 22.1 for females, and was calculated based on the proportion of those never married/ single by age. There were notable differences in the age at marriage between provinces (Fig. 43). While age at marriage was oldest in Malampa and Shefa, it was youngest in Torba, where the age difference between spouses was also the smallest (23.9 years for men and 21.0 for women).

While only 2.9% of males were ever married (legal or de facto) at ages 15–19, 13.1% of females in this group were married (Table 29 and Fig. 44). At age 20–24, well over half of all women were already married compared with 29.9% of males. Compared to the 2009 census, the percentage of males and females married at young ages has increased, except in the case of males aged 15–19, while the age difference between males and females has slightly increased compared to the 1999 and 2009 censuses.

	Average	age at ma	rriage	Percentage ever married by age group				
Veen	SMAM		Age difference	15-	-19	20–24		
Year	Males	Females	nales males-females	Males	Females	Males	Females	
1967	26.6	21.2	5.4					
1979	26.1	22.2	3.9	2.8	10.3	32.1	56.4	
1989	25.2	22.6	2.6	3.4	12.8	30.9	58.0	
1999	25.3	23.0	2.3	2.6	14.0	28.9	59.0	
2009	25.5	22.5	3.0	3.2	11.5	28.6	54.7	
2020	25.5	22.1	3.4	2.9	13.1	29.9	62.1	

Table 29. Singulate mean age at marriage (SMAM¹²), and percentage married at young ages, of the population in private HHs, by sex, Vanuatu: 1967, 1979, 1989, 1999, 2009 and 2020

Figures 45 and 46 display the proportion of males and females married/never married by age. Clearly these two figures complement each other. When the proportion of the population married at a certain age is low, it is high for the proportion of the population never married at the same age, and vice versa.

Furthermore, the proportion of females in a married status is higher than that of males until age 34. Then the proportion of married females steadily declines because an increasing number of females become widows (Fig. 47).

The discrepancy between the proportion of widowed males and widowed females, at ages 40+, increased continuously (Fig. 47). Between ages 40–44, only 0.7% of males were widowed, compared with 3.2% of females. At ages 60+, only 11.1% of males were widowed, compared with 28.9% of females.

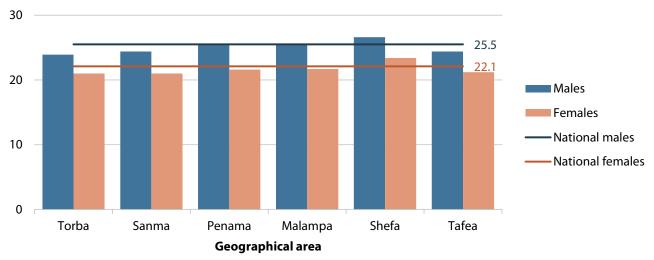


Figure 43. Average age at marriage, by sex and province, Vanuatu: 2020

¹² United Nations 1983. Manual X: Indirect techniques for demographic estimation. New York: United Nations. Available at: https://digitallibrary.un.org/record/60755/files/un_1983_manual_x_-_indirect_techniques_for_demographic_ estimation.pdf

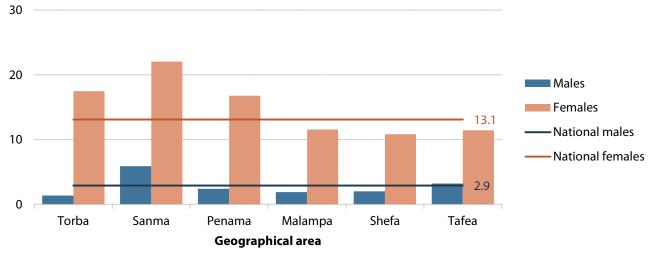


Figure 44. Percentage of population married at age 15–19 years, by sex and province, Vanuatu: 2020

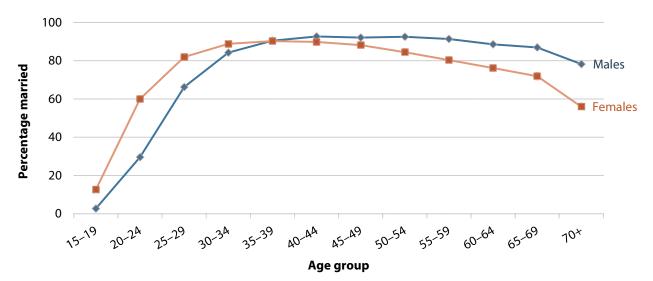


Figure 45. Percentage of population aged 15+ married, by sex, Vanuatu: 2020 *Note: 'Married' includes legally married and de facto relationships.*

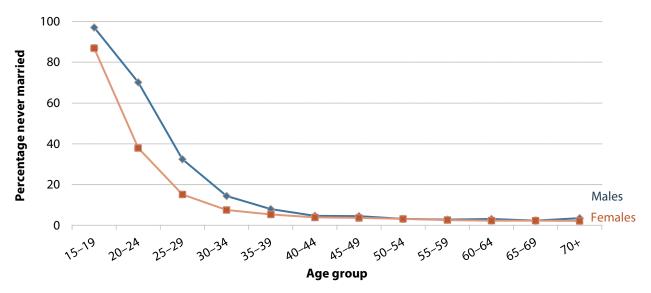


Figure 46. Percentage of population aged 15+ never married (single), by sex, Vanuatu: 2020

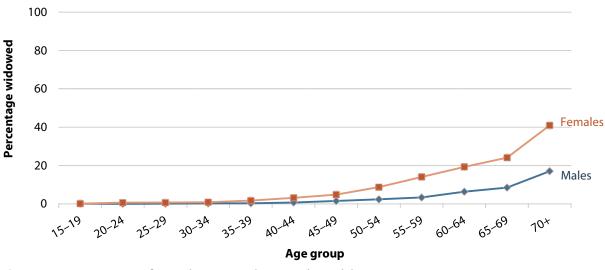


Figure 47. Percentage of population aged 15+ widowed, by sex, Vanuatu: 2020

4.2. Religion

The question on religion was not compulsory. Nevertheless, only 0.15% or 428 people in private HHs refused to respond or did not respond to this question.

The Presbyterian Church of Vanuatu continued to be the dominant religious denomination in Vanuatu, although its share decreased from 35.8% in 1989 and 27.9% in 2009 to 27.2%, or 80,060 persons, in 2020 (Table 30).

Religion	1989	1999	2009	2020
Anglican	19,949	25,084	35,256	35,339
Presbyterian	50,951	58,540	65,345	80,060
Catholic	20,613	24,515	28,933	35,602
SDA	11,737	20,068	29,251	43,541
Church of Christ	6,745	8,047	10,593	14,588
Assemblies of God	-	8,040	11,078	14,450
Neil Thomas Ministry	-	6,406	7,223	9,515
Apostolic	-	3,377	5,231	6,894
Customary beliefs	6,484	10,365	8,600	9,080
Latter-day Saints (Mormon)	-	-	-	5,174
No religion	2,437	1,919	2,554	4,023
Refuse to answer	5,755	2,374	484	394
Other	17,748	17,943	29,475	35,270
Total	142,419	186,678	234,023	293,963

Table 30. Population* by religious affiliation, Vanuatu: 1989, 1999, 2009 and 2020

* Based on the population in private HHs.

The next largest group was the Seventh Day Adventist Church with 43,541 members, a share of 14.8% of all denominations, followed by the Anglican and Catholic Churches, with a share of just over 12% each.

Members of other denominations (Church of Christ, Assemblies of God, Neil Thomas Ministry, Apostolic Church, Church of Latter-day Saints, and Customary beliefs) comprised 20.3% of the population, and persons with no religion comprised 1.4%. The category 'Other' includes 88 different religions ranging from one member to more than 2,000 members. Compared to 2009, the numbers in Table 30 show strong growth of the Seventh Day Adventists and the Church of Christ, while the number of members of the Anglican Church has remained almost stationary. Although the number of persons without religion is still small, this group also increased significantly between 2009 and 2020.

The compositions of the different religious denominations were markedly different between the provinces (Table 31). While Penama and especially Torba were dominated by the Anglican Church, the Presbyterian Church was the main religion in Malampa and Shefa, but it was all but absent in Torba and Penama. Catholicism was particularly strong in Penama and Malampa. While the Presbyterian Church was also strong in Sanma, this province showed the most diverse mix of religions of all provinces. Slightly more than one in six people in Tafea stated Customary beliefs as their religious affiliation.

Religion	Torba	Sanma	Penama	Malampa	Shefa	Tafea
Anglican	77.4	9.9	44.9	0.4	5.1	0.2
Presbyterian	0.5	25.9	0.6	43.9	35.3	22.0
Catholic	0.5	12.5	21.7	19.1	8.5	8.9
SDA	5.8	15.8	5.9	17.1	17.6	14.0
Church of Christ	1.5	6.9	16.1	0,7	3.2	2.7
Assemblies of God	4.2	3.5	0.9	3.5	6.6	7.5
Neil Thomas Ministry	3.2	3.0	1.2	3.8	4.1	2.6
Apostolic	0,3	4.0	3.0	1.1	2.0	2.1
Customary beliefs	0.1	0.5	2.4	0.0	0.2	17.3
Latter-day Saints (Mormon)	0.9	1.4	0.3	1.7	1.9	3.2
No religion	0.0	0.8	0.1	0.0	0.9	5.7
Refuse to answer	0.0	0.1	0.0	0.0	0.3	0.1
Other	5.8	15.5	2.7	8.5	14.4	13.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 31. Percentage of population residing in private HHs, by religious affiliation and province: 2020

4.3. Ethnic origin

Based on information on the number of people by ethnic origin, Vanuatu has a homogenous population, with 99.0% or 291,035 persons being Ni-Vanuatu; 0.2% or 534 persons were part Ni-Vanuatu; and 0.8% or 2,394 persons were of foreign descent (Table 32). Note that the latter two groups have declined further compared to 2009, when they were 1.1 and 1.3%, respectively.

The largest single groups of foreign descent came from Australia, New Zealand and Europe (800), followed by Asia (672) and Melanesia other than Vanuatu (641).

Table 32. Population living in private HHs, by ethnic origin, Vanuatu: 2020

Ethnic origin	Number	Percentage
Ni-Vanuatu	291,035	99.0
Part Ni-Vanuatu	534	0.2
Other Melanesia	641	0.2
Polynesia	135	0.05
Micronesia	55	0.02
EU/Aust/NZ	800	0.3
Asia	672	0.2
Other	91	0.03
Total	293,963	100.0

Note: EU: Europe; Aust: Australia; NZ: New Zealand.

Almost 70% of people of foreign descent lived in Port Vila and another 11% in the rural area of Shefa province, while just under 10% lived in Luganville. In all other areas of the country, the percentage of the population of foreign descent was under 0.25%.

4.4. Health

4.4.1 Disability

Vanuatu is a signatory to the United Nations Convention on the Rights of Persons 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."

For the 2009 census, the Government and stakeholders asked the VBS to collect information on disability in Vanuatu. The same process was applied to the 2020 census, with both censuses asking the same questions; e.g. 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 (Table 33). Other questions asked if people were unable to see, hear, walk, remember or concentrate at all—in other words, whether they were blind, deaf, lame, senile and/or amnesiac.

Overall, about 14.7% of the total population aged 5+ reported a disability, regardless of severity. The proportion of females with a disability was slightly higher (15.2%) than that of males (14.2%). Most of these disabilities were minor; only 1.7% of the population aged 5+ reported a major disability (major difficulty or total inability to perform a function). The most commonly mentioned disability was difficulties with seeing (21,124 people), followed by difficulties with walking (16,640), remembering and/or concentrating (11,555), and hearing (10,845).

Table 33. Population aged 5+ in private HHs reporting a disability regardless of the severity of the disability, Vanuatu: 2020¹³

Disability	Any le	evel of disa	bility	Total disability			
Disability	Total	Males	Females	Total	Males	Females	
Vision	21,124	9,850	11.275	140	64	77	
Hearing	10,845	5,361	5,484	200	102	98	
Walking	16,640	7,505	9,135	454	229	225	
Remembering or concentrating	11,555	5,546	6,009	208	110	98	

About 450 people reported that they could not walk at all (lameness), about 200 people were senile and/or amnesiac, another 200 people were deaf, and almost 150 people were blind. Note that these numbers are substantially lower than in the 2009 census.

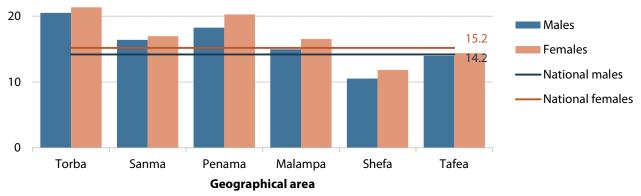


Figure 48. Percentage of the population aged 5+, by sex and place of residence, reporting a disability regardless of the severity of the disability, Vanuatu: 2020

As is to be expected, the proportion of the population with a disability increases with age (Figs 49–53).

Disability of any level of severity was below 6% for young people aged 5–24 years. From age 40, the proportion of the population with a disability increased continuously. More than half of the population

¹³ Note that these numbers are not directly comparable to those of the 2009 census because the latter included disabilities for children aged 0-4, which were not considered in 2020.

aged 60+ years reported a disability (Fig. 49). Difficulties most commonly mentioned by the older population were vision (Fig. 50) and walking (Fig. 52).

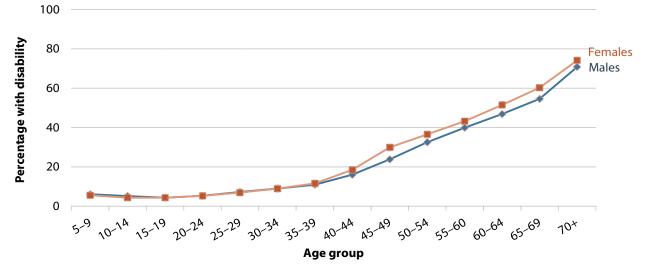


Figure 49. Percentage of the population by age and sex, reporting a disability regardless of the severity of the disability, Vanuatu: 2020

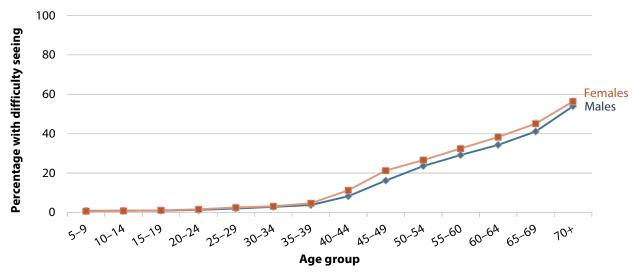


Figure 50. Percentage of the population by age and sex, reporting difficulties seeing, Vanuatu: 2020

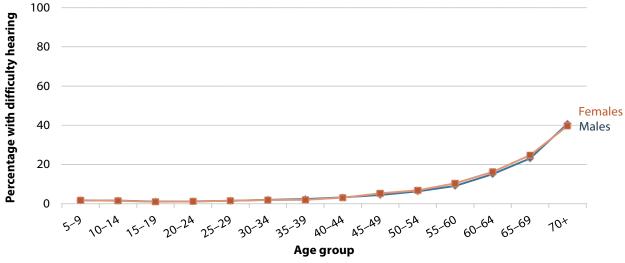


Figure 51. Percentage of the population by age and sex, reporting difficulties hearing, Vanuatu: 2020

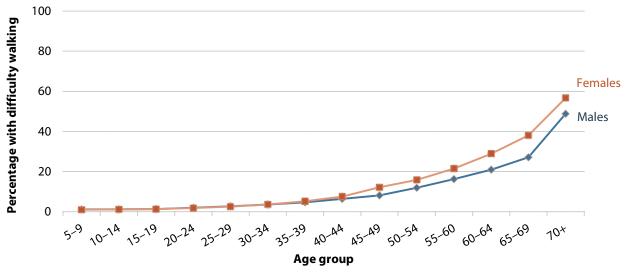


Figure 52. Percentage of the population by age and sex, reporting difficulties walking, Vanuatu: 2020

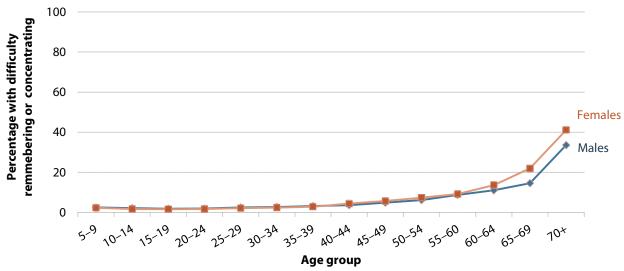


Figure 53. Percentage of the population by age and sex, reporting difficulties remembering or concentrating, Vanuatu: 2020

4.4.2 Smoking and drinking habits

Following a request from the Ministry of Health and other data user groups, the 2009 census questionnaire included several questions on smoking and drinking habits. The same questions were repeated in 2020. The questions were designed to collect information on a person's consumption habits with respect to smoking cigarettes or tobacco, and drinking alcohol and/or kava during the week before the census. There were no questions on frequency of use and quantity/volume of the substance consumed.

With respect to smoking cigarettes or tobacco, almost half (48.9%) of males and 5.3% of females aged 15+ reported smoking (Figs 54 and 55). About a quarter (25.5%) of males and 5.1% of females reported drinking alcohol (Figs 56 and 57); and 55.4% of males and 11.2% of females drank kava (Figs 58 and 59). It is worth noting that all of these percentages are higher than in 2009, especially alcohol consumption among males, which in 2009 was only 17%.

Smoking cigarettes or tobacco

The proportion of male smokers was higher in rural than in urban areas, and was highest in Torba, where 55.8% of all males smoke. Interestingly, the proportion of female smokers was higher in urban than in rural areas (Fig. 54).

The highest proportion of male smokers was aged 20–39 years. In this group, more than 60% of all males smoke cigarettes or tobacco. However, the highest prevalence of smoking was among 25–29 year-olds with 68.2% of smokers. From the age of 30 years, the proportion of smokers continuously decreases with increasing age (Fig. 55). The age pattern for women is similar, but at a much lower level and with a slightly later peak, in the 30–34 year age group where 7.9% of women smoke.

Drinking alcohol

The consumption of alcohol is significantly higher in urban than in rural areas, although, overall, the proportions of the population that drink alcohol are significantly lower than those that smoke or drink kava. The consumption of alcohol is very low in Torba and Penama and also below the national average in Tafea (Fig. 56).

The highest proportion of male drinkers was aged 20–29 years. About 40% of all males in this group drink alcohol. However, from the age of 25 years, the proportion of alcohol drinkers continuously decreases with increasing age (Fig. 57). The age pattern for women is similar, but at a much lower level and with a slightly later peak, in the 25–29 year age group where 7.7% of women consume alcohol.

Drinking kava

Torba has the highest proportion of kava consumption. Two-thirds of all males and almost 30% of females in Torba drink kava. Kava consumption was also high in Penama. Overall, the proportion of male kava drinkers was lower in urban than in rural areas. However, it was the opposite for females; more female kava drinkers were found in urban than in rural areas (Fig. 58).

The age pattern of kava consumers is older than that of smokers or consumers of alcohol. The highest proportion of male kava drinkers was aged 30–39 years; at this age, more than 70% of all males drink kava. From the age of 35 years, the proportion of kava drinkers continuously decreases with increasing age (Fig. 59), although more slowly than in the case of smokers or consumers of alcohol.

Female kava drinking peaked at ages 35–44; in this group, slightly more than 17% of women drink kava. From the age of 45, the proportion of female kava drinkers continuously decreases with increasing age. Kava drinking among women was lowest for those under 25 and over 65.

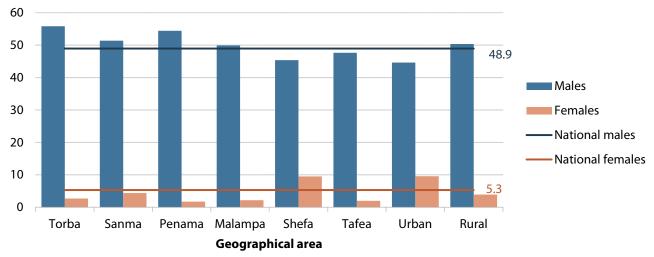


Figure 54. Percentage of the population 15+ years by sex and place of residence, who smoke cigarettes or tobacco, Vanuatu: 2020

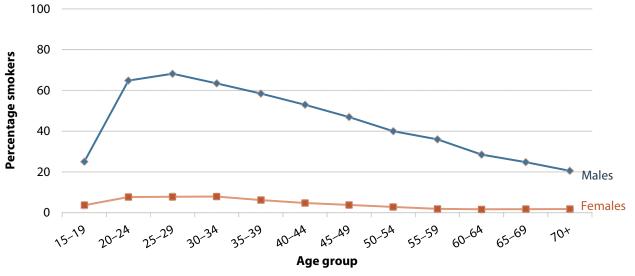


Figure 55. Percentage of the population 15+ years by age and sex, who smoke cigarettes or tobacco, Vanuatu: 2020

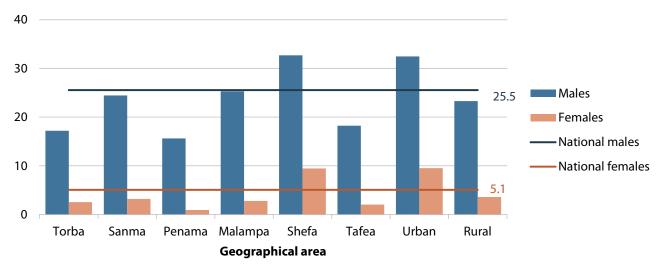


Figure 56. Percentage of the population 15+ years by sex and place of residence, who drink alcohol, Vanuatu: 2020

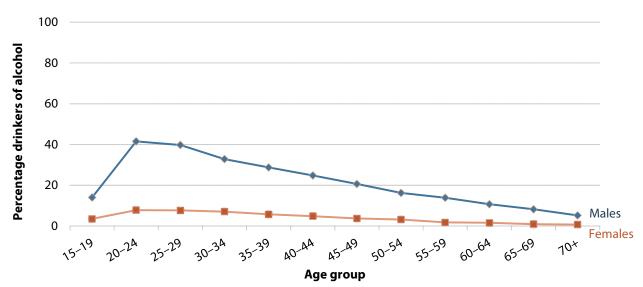
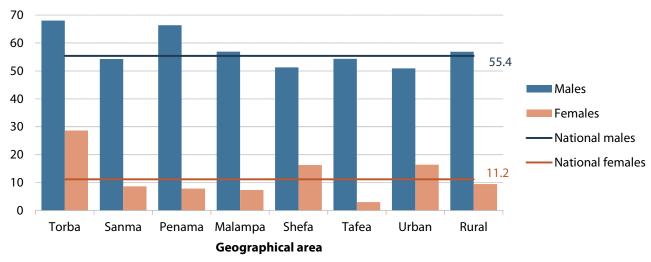


Figure 57. Percentage of the population 15+ years by age and sex, who drink alcohol, Vanuatu: 2020



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Figure 58. Percentage of the population 15+ years by sex and place of residence, who drink kava, Vanuatu: 2020

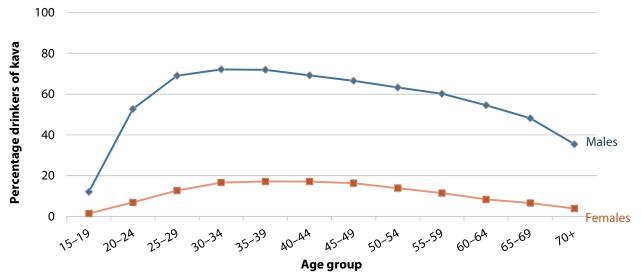


Figure 59. Percentage of the population 15+ years by age and sex, who drink kava, Vanuatu: 2020

4.5. Educational characteristics

Vanuatu's Education and Training Sector Strategy (VETSS) for 2020–2030 recognises that education and training are 'key to a better and innovative future, protection of the country's culture and identity, and the development of each and every individual, community, society and the nation as a whole'. It was developed to align with and respond to the National Sustainable Development Plan 2016–2030 (The People's Plan) and provides the direction and sets priorities with respect to key policy areas, such as teacher quality, school subsidies, inclusive education, plurilingualism (French and English schools), infrastructure, curriculum, minimum standards, evidence-based policies, management systems, monitoring and evaluation, rationalisation of resources, devolution, governance, partnerships and communication

Vanuatu's education system includes two years of pre-school, six years of primary, four years of lower secondary, and three years of upper secondary plus post-secondary education. A total of 96,829 students were enrolled in 2020 served by 4,004 teachers in a total of 1,472 schools. The Ministry of Education and Training (MoET) manages the country's education sector, supported by church education authorities. Over 98% of primary schools in Vanuatu are either public or government-assisted church schools. In the latter, church operators are designated as 'Education Authorities' and operate under an agreement and regulatory framework with MoET to administer schools on behalf of the government.

Although education in Vanuatu is not compulsory, there is a free education policy. Under this policy, MoET allocates school grant funding to all registered primary schools in the country. The purpose of the school grant is to enable all children aged 6–11 years old to go to school as part of the development of universal primary education. The policy is a joint initiative between AusAid, the New Zealand Aid Programme and the Vanuatu government to subsidise primary school education. Despite implementation of this policy, many students in Vanuatu still pay school fees. Parents are asked for a contribution or to provide fundraising and this can have a direct impact on school attendance.

In March 2015, a severe cyclone, TC Pam, struck Vanuatu. The storm affected 188,000 people—more than half the national population—and all six provinces. Many schools in Shefa and Tafea provinces were damaged and children in these two provinces were unable to attend school. Schooling was further disrupted in Ambae following the eruption of the island's Manaro Voui Volcano in 2017 and again in 2018.

4.5.1 School attendance

At the time of the census, 87,054 people of the total enumerated population 3+ years were attending school: 44,648 males and 42,405 females. This number contrasts with the total of 30,681 persons over the age of 3 (14,780 males and 15,901 females) who never attended school. The distribution of those attending a school, by school level, is shown in Table 34. This table excludes students boarding in dormitories.

Table 34. Population living in private HHs 3+ years by sex, and enrolled in school, by school level, and attending, Vanuatu: 2020

School level	Total	Males	Females
Pre-school (ECCE)	1,845	934	911
Kindy	12,225	6,305	5,920
Primary	43,029	22,237	20,793
Junior secondary	16,530	8,446	8,084
Senior secondary	7,756	3,826	3,930
Post-secondary	659	376	284
Tertiary	2,146	1,033	1,114
Other	28	20	7
Level not stated	2,835	1,471	1,362
Total	87,054	44,648	42,405

Almost half of all students (43,029) were enrolled in primary school, 27.9% in secondary school (24,286) and 16.2% in pre-school or 'kindy' (14,070). These numbers can be compared with those provided by MoET, based on administrative data, which show that, in 2020, 56,633 children were enrolled in primary education, 23,943 in secondary education and 16,253 in pre-school education (ECCE). The large difference between the number of children enrolled in primary education, according to MoET, and those attending, according to the census, is cause for concern as it suggests that almost a quarter of the children officially enrolled in primary education were not actually attending. It is probably not a coincidence that roughly the same percentage of officially enrolled children were over the appropriate age for primary education. As a result, the gross enrolment ratios (GERs) for primary education, as computed by MoET, were over 100 in all provinces, with a low of 105 in Sanma province and a high of 137 in Tafea.

Of the 25,710 children enrolled in secondary education, according to MoET, more than a third were also over the appropriate age, but in the case of secondary education the discrepancy between the number officially enrolled and those attending is minimal. About 2.5% (2,146) of all students were attending tertiary education. It is remarkable that, at most levels, the number of male students exceeds that of female students, but this relation is reversed at the senior secondary and tertiary levels.

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With respect to the main language spoken in educational institutions, more than half (62.3%) of all students attended English-speaking schools (54,244); 26.4% attended French-speaking schools (23,011); and 7.1% attended schools where the language of instruction was Bislama. This compares to enrolment data from MoET, which indicates that 1,352 children received instruction in Bislama (ECCE level only), whereas at the primary level 38,561 received instruction in English and 17,862 in French. At the secondary level, these numbers were 17,128 and 6,815, respectively. Due to differences in categorisation, the 2020 census numbers are difficult to compare to those of 2009, but it would seem that the proportion of children attending English language schools has increased.

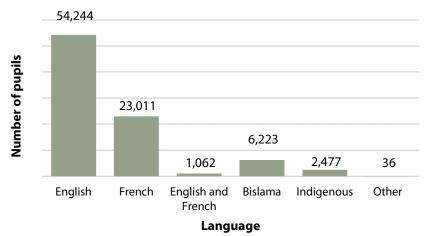


Figure 60. Population living in private HHs 5+ years by sex, and attending school, by main language of educational institution, Vanuatu: 2020

For ages 5–18, female attendance rates were higher than male enrolment rates. From the age of 19, school attendance rates for males were slightly higher than for females (Fig. 61). Not at any age did more than 90% of children attend school, and just under 6% of children aged 5–24 were never in school. The highest school attendance rates were for 8–11 year-olds when almost 90% of children were in school. From the age of 12, school attendance rates decreased rapidly, and at age 17 years just over half of children were still in school.

Apart from the relatively large proportion of young people that have never been to school (Figs 61 and 62), it is a worry that even at young ages (8–12 years), children start leaving school, and at age 15 around 25% of children have already left school (Figs 61 and 62).

With respect to the population aged 6–13 years, 85.6% were enrolled in school, 8.9% had already left school, and 5.4% had never been in school. The percentage distribution is about the same for males and females. However, there were marked differences in school attendance rates by place of residence (Fig. 63). School attendance of children aged 6–13 was significantly higher in urban (90.6%) than in rural areas (84.5%). Tafea had by far the lowest attendance rates for 6–13 year-olds: only a little over three quarters were attending education, and 14% had never been to school. On the other hand, Shefa and Malampa had the highest attendance rates for 6–13 year-olds with 90.1 and 88.8%, respectively, and only 1.9% of children in Malampa had never been to school.

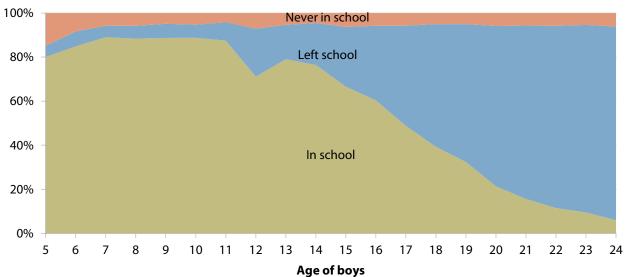


Figure 61. Percentage of boys aged 5–24 years by age and school enrolment, Vanuatu: 2020

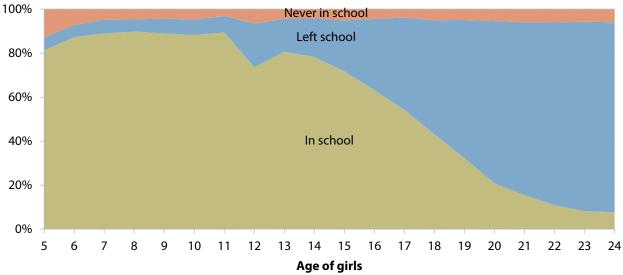
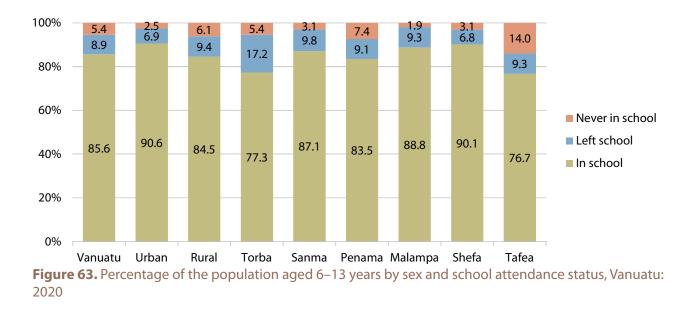


Figure 62. Percentage of girls aged 5–24 years by age and school enrolment, Vanuatu: 2020



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4.5.2 Educational attainment

Based on data on the highest level of education completed, 26.4% of males and 27.4% of females 15+ years responded that they had completed secondary education. About 47% completed only primary level and 21.7% of the population 15+ years had never been to school (20.8% of males and 22.6% of females). Only 2.3% of males and 1.6% of females had tertiary education (Fig. 64 and Table 35).

It should be noted that the percentage who never attended education (21.7%) is higher than it was in 2009 (16%). This, however, is unlikely to reflect reality. Rather, it seems to be a consequence of the way the question was asked in 2009 and 2020. In 2009, 'no schooling' was included among the option for schooling level. In 2020, those without schooling did not answer the question because they were filtered out by a previous question on whether they had ever attended school. It appears that this screening question was answered affirmatively by more people than would have chosen the option of 'no schooling' had the question been asked the same way as in 2009. Note also that the number of people aged 15+ years who did not declare a level of completed schooling (38,929) is larger than the number of people over age 3 who, in the question on school attendance, declared never having been to school (30,681). This is not necessarily inconsistent as the former refers to completed schooling and the latter to school attendance.

As can be expected, educational levels were much higher in urban than in rural areas. The proportion of the population 15+ years living in urban areas that completed at least secondary education was 50.4% for men and 49.0% for women, compared to only 26.3% for men and 25.7% for women in rural areas. On the other hand, the proportion of the population with no education (never been to school) was 19.7% in rural areas compared to 22.4% in urban areas.

The proportion of the population with no education was particularly high in Tafea (41.2%). Shefa, with the urban centre of Port Vila, had the highest proportion of the population (44.0% for men and 42.9% for women) with at least secondary education, followed by Sanma with 31.2% for men and 32.0% for women.

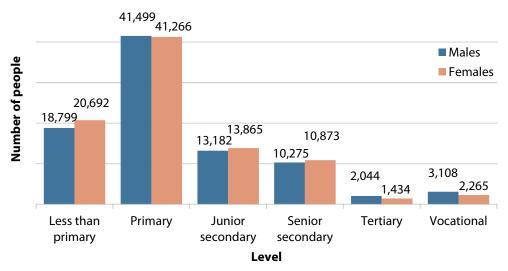




Table 35. Percentages of	f persons 15+ yea	rs by level of educ	ation, area and sex, Var	uatu: 2020

Males								
Area None		Primary	Secondary	Tertiary	Vocational			
Urban	19.4	30.1	37.6	5.7	7.1			
Rural	21.3	52.0	22.8	1.2	2.3			
Torba	19.0	60.6	17.6	0.6	1.6			
Sanma	18.2	50.2	26.7	1.6	2.9			
Penama	19.8	56.8	21.1	0.5	1.3			

Malampa	16.5	58.6	21.4	0.6	2.6
Shefa	17.6	38.2	33.6	4.6	5.8
Tafea	39.4	40.0	18.1	0.8	1.4
Vanuatu	20.8	46.7	26.4	2.3	3.5

	Females							
Area	None	Primary	Secondary	Tertiary	Vocational			
Urban	19.9	31.0	39.5	4.0	5.5			
Rural	23.4	50.5	23.4	0.8	1.5			
Torba	22.4	56.3	19.8	0.3	0.6			
Sanma	19.2	48.4	29.0	0.9	2.1			
Penama	23.7	53.9	20.9	0.3	0.8			
Malampa	18.2	58.5	21.1	0.4	1.4			
Shefa	18.0	39.0	35.1	3.3	4.5			
Tafea	42.8	37.8	17.8	0.4	0.7			
Vanuatu	22.6	45.7	27.4	1.6	2.5			

4.5.3 Literacy and language ability

Literacy was measured by a respondent's ability to read or write a simple sentence in one or more of the following languages: English, French, or a vernacular language including Bislama. Overall literacy for the population 15+ years was 90.1% in Bislama (91.1% for men and 89.2% for women), 76.9% in English (77.8% for men and 76.0% for women) and 40.0% in French (39.5% for men and 40.4% for women). In the case of vernacular languages, 70.9% of people 15+ years knew how to read or write in them. Only 1.1% of the population could read or write in another language.

Between ages 10–34 years, 94.6% of the population could read and 94.0% could write in any language. From the age of 35, literacy rates gradually declined with the increasing age of the population. Of the population aged 55–59, only 89.4% could read and 88.0% could write. These percentages fell to 72.4% and 68.8% in the population over 70 (Fig. 65). The literacy rate (reading or writing) of 15–24 year olds was 94.8% for males and 95.7% for females (Fig. 66).

While more than 99% of 15–24 year-olds in urban areas were literate, this percentage fell to 93.5% of men and 94.4% of women in rural areas. The provinces of Torba and especially Tafea had significantly lower literacy rates than the national average.

Literacy in terms of language abilities is shown in Table 36 and Figs 67–71. Abilities varied extensively by place of residence. Language abilities in any language were much higher in urban than in rural areas. Literacy in Bislama was highest in Shefa, Malampa and Sanma. English was also popular in Shefa, followed by Sanma. Indigenous languages were common in Shefa and Penama, and French literacy was proportionately more widespread in Shefa than in other provinces.

All languages shared a common feature; that is, the ability to read or write in any language decreased sharply at older ages, and the language abilities of males—especially older males—were higher than those of females (Figs 67–71).

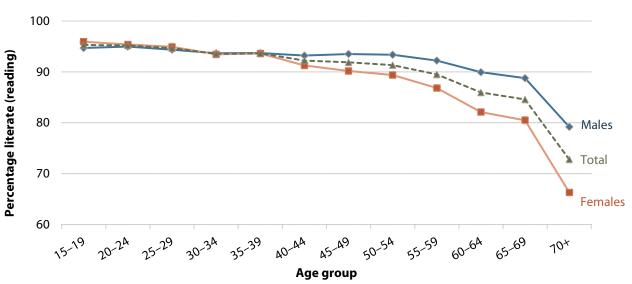


Figure 65. Literacy rate (read or write) of the population 15+ years by sex (percentage literate), Vanuatu: 2020

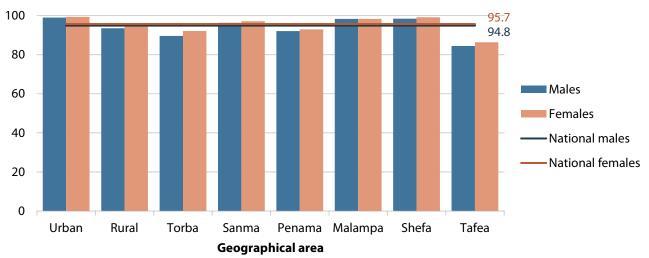


Figure 66. Literacy rate (read or write) of the population 15–24 years, by sex and place of residence (percentage literate), Vanuatu: 2020

Figure 67. Percentage of the population 15+ years with language ability (read or write) in various languages, by sex, Vanuatu: 2020

Region	English	French	Bislama	Indigenous	Other
Urban	89.5	48.4	96.6	78.0	1.2
Rural	72.8	37.2	88.0	68.6	1.1
Torba	73.9	27.1	85.1	58.0	4.5
Sanma	76.1	39.1	91.4	69.7	0.9
Penama	67.2	33.8	86.8	73.9	1.1
Malampa	74.0	38.7	94.6	60.2	0.5
Shefa	89.1	46.6	96.6	82.4	1.4
Tafea	56.4	32.9	70.4	53.8	0.5
Vanuatu	76.9	40.0	90.1	70.9	1.1

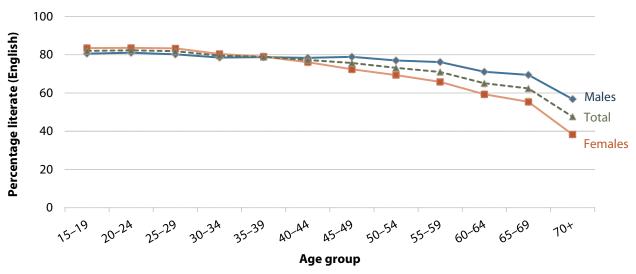


Figure 68. Percentage of the population 15+ years with English language ability (read or write), by sex, Vanuatu: 2020

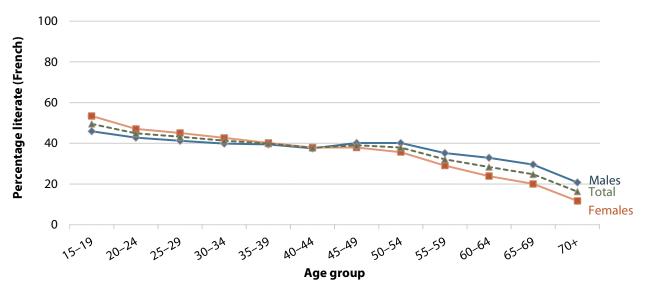


Figure 69. Percentage of the population 15+ years with French language ability (read or write), by sex, Vanuatu: 2020

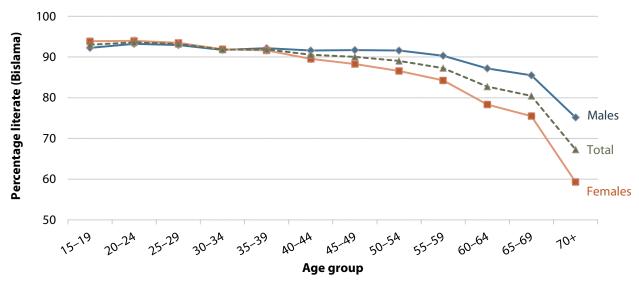


Figure 70. Percentage of the population 15+ years with Bislama language ability (read or write), by sex, Vanuatu: 2020

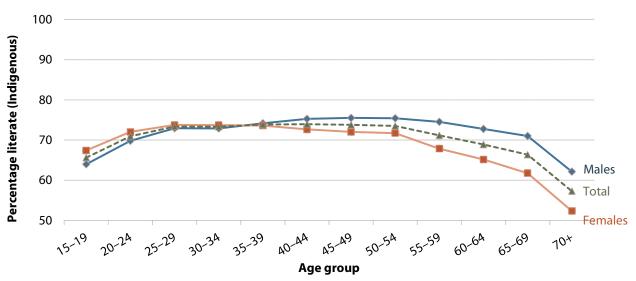


Figure 71. Percentage of the population 15+ years with Indigenous language ability (read or write), by sex, Vanuatu: 2020

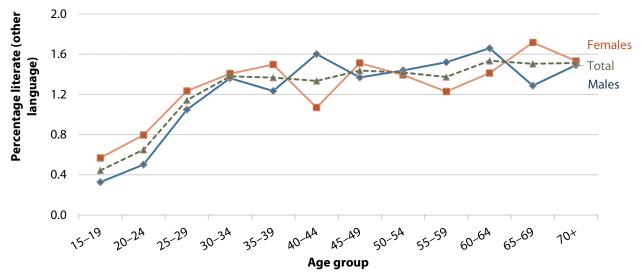


Figure 72. Percentage of the population 15+ years with other language ability (read or write), by sex, Vanuatu: 2020

Unlike the 2009 census, the 2020 census also asked if people were able to speak an Indigenous language. As can be seen from Figure 72, this ability is almost universal among the population aged 30+, but among young people a significant minority do not speak an Indigenous language or do so only with difficulty. There is essentially no difference between men and women in this regard.



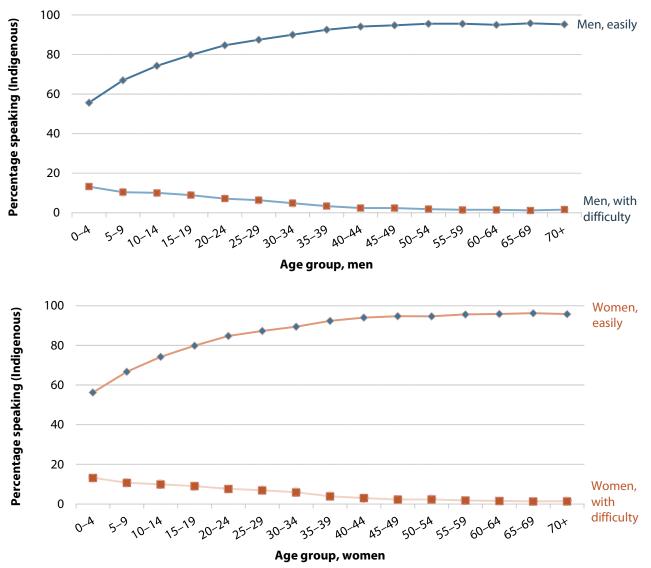


Figure 73. Percentage of the population that can speak an Indigenous (vernacular) language, by age and sex, Vanuatu: 2020

In total, 92.2% of the population answered that they can speak an indigenous language easily or with some difficulty. The 2020 census then asked these people an additional question about the language in which they were raised. The overwhelming majority (84.8%) answered they had been raised in an indigenous language. Another 12.4% were raised in Bislama and learned to speak an Indigenous language later in life. The percentage of people who were raised in English or French and who learned to speak an Indigenous language later in life was very low: 2.0% and 0.8%, respectively.

There was very little difference between men and women in this respect. There was a difference by region, however. The percentage of persons who were raised in an Indigenous language was lower in urban areas (69.5%) and higher in rural areas (89.3%), particularly in Torba (95.0%), Penama (94.8%) and Tafea (94.2%). The percentage who were raised in Bislama was highest in the two urban areas, Port Vila (25.0%) and particularly Luganville (30.7%).

4.6. Internet use

The 2009 census questionnaire was the first to introduce a question on internet use during the week before the census by the population 5+ years. The question was considerably expanded in the 2020 census, which investigated four different items:

 Did XYZ connect to the internet in the last week (9 November to 15 November 2020), Either through broadband, Wi-Fi, at work, mobile data, etc.?

- How has XYZ mostly accessed the internet in the PAST 12 MONTHS?
- Does XYZ use a mobile/cell phone to connect to the internet?
- What is XYZ'S MAIN purpose in accessing the internet?

Overall, 66,214 (26.2%) of all respondents said they used the internet: 35,938 males and 30,275 females. This is an enormous increase compared to 2009, when only 9,290 declared using the internet. Although 20–29 year olds are the largest group of users (24,168) and the number of users over age 50 is still small (5,253), internet use has expanded across age groups (Fig. 73).

As can be expected, internet use was much more common in urban areas, where 48.3% of the population used the internet, compared to 19.7% of the rural population (Fig. 74). The highest use of the internet was in the province of Shefa, where more than 40% used the internet. The province with the lowest use was Tafea, with only 11.0%.

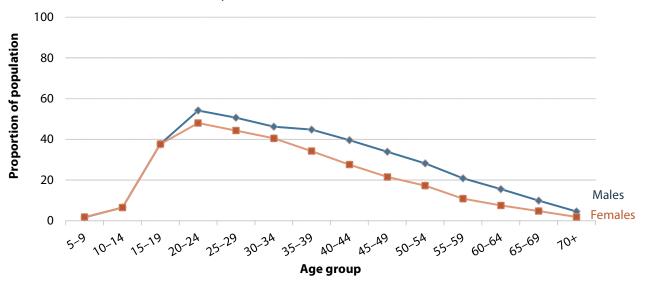


Figure 74. Proportion of the population 15+ years by sex using the internet, Vanuatu: 2020

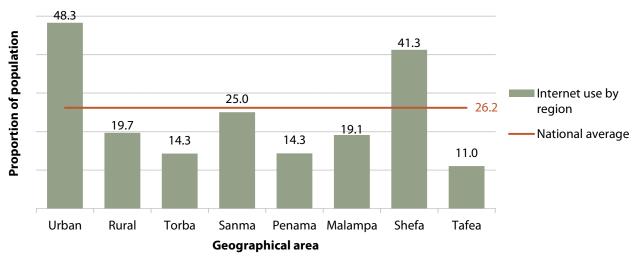


Figure 75. Proportion of the population 15+ years by place of residence, using the internet, Vanuatu: 2020

Unlike the 2009 census, the 2020 census also asked about the means people used to access the internet. The overwhelming majority (89.4%) of users declared that they accessed the internet through their mobile phones. Much smaller percentages (3.4% each) declared that they accessed the internet through broadband at home or at work. Use of internet at schools is still very limited: only 0.8% of users declared that they accessed the interpreted with some caution as the census question referred to the predominant means of access. Therefore, it

is possible that a larger number of students had internet access at school, even though their predominant access was elsewhere.

4.7. Labour market activity

4.7.1 Introduction

The 2020 census included several questions on labour market activity. The first of these was intended to establish a person's labour force participation. Enumerators were instructed to ask each respondent aged 15+ 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. Based on these criteria, respondents were coded on the questionnaire into the three mutually exclusive categories of:

- work for pay, as an employee, employer or self-employed worker;
- work to support the HH by producing goods mainly for own consumption;
- voluntary work or unpaid family work.

A person who 'works for pay' is someone who works for wages, salary, commission, or has a contract, or is operating a business. The person is either a government or private employee, an employer, or self-employed. It also includes persons that 'work to support the HH by producing goods mainly for sale', performing a variety of tasks such as farming, gardening, fishing or producing handicrafts mainly for sale.

A person who does 'work to support the HH by producing goods mainly for own consumption' performs a variety of tasks such as farming, gardening, fishing or producing handicrafts for their own consumption and is described as a subsistence worker. A person who does 'voluntary work' or 'unpaid family work' is someone who works but does not receive a wage, salary or commission, and does not have a contract.

The UN publication, *Principles and Recommendations for Population and Housing Censuses, (Revision 3)*, recommends that "persons engaged in economic activities in the form of own account production of goods for own final use within the same HH should be considered to be self-employed." Certainly, those selling their products should also be classified as employed. According to this definition, all people classified as subsistence workers are considered to be employed.

The 'non-labour force' category applies to those people who did nothing in the reference week (i.e. the week prior to the census) to provide for themselves or their families or HH. This includes people engaged in home duties, who were retired, disabled, students, the unemployed and those who did 'not want to work' or did not work because 'the weather or transport problems' prevented them from working, or they did not work for 'other' reasons.

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 offered a job.

If the person did not work and did not spend some time looking, or looked for work but was not available for work, they were then classified as economically inactive (not in the labour force).

Based on the above, data collected from the Vanuatu census was assigned to the three categories of:

- employed (those that 'work for pay' or 'work to support the HH by producing goods mainly for own consumption', and those doing 'voluntary work', or 'unpaid family work');
- unemployed (see definition above);
- not in the labour force (not employed, or unemployed).

Optional definitions of unemployment are also provided below.

4.7.2 Economic activity

The total labour force of 83,778 people is defined as those being employers (3,248) or self-employed (19,911), employees (10,345 in the government and 19,631 in the private sector), those that did unpaid work (9,279, including 439 trainees), subsistence work (16,316) and the unemployed (5,049) (Figs 75 and 76).

Paid employed people are defined as those who'work for pay' and 'work to support the HH by producing goods mainly for sale'. The total number of paid employed people consisted of 29,976 persons: 17,622 (58.8%) males and 12,354 (41.2%) females. From an urban–rural perspective, 15,696 (52.4%) of paid workers were in urban areas (Port Vila and Luganville), and 14,279 (47.6%) held paying jobs in rural areas.

The non-labour force of 95,524 people is defined as those who are full-time students (15,362), those engaged in home duties (65,065), the retired (1,037), the incapacitated (10,520), and all those who did not work and were not unemployed (did not look for work and were not available to work) for various reasons, including part-time students who are not working (3,539).

From the urban-rural divide (Fig. 76) it is apparent that most employees paid by a wage or salary are in urban areas, while the overwhelming majority of subsistence workers live in rural areas. This pattern is clearly illustrated by comparing the number of people by labour market activities of the different provinces (Figs 77–82). The only provinces with more people defined as employees rather than subsistence workers are Shefa and—to a lesser extent—Sanma, where the urban areas of Port Vila and Luganville are located.

Another general pattern is that there are more males than females in the labour force categories, while there are more females engaged in home duties than males. There is a notable difference in this latter category compared to the 2009 census, when it was considerably smaller and much more skewed towards women. The likely explanation is that the 2020 census was held eight months after COVID-19 had been declared a global pandemic and people were much more likely to stay at home than in normal times. This may have biased the number of people, particularly men, declaring home duties as their main activity.

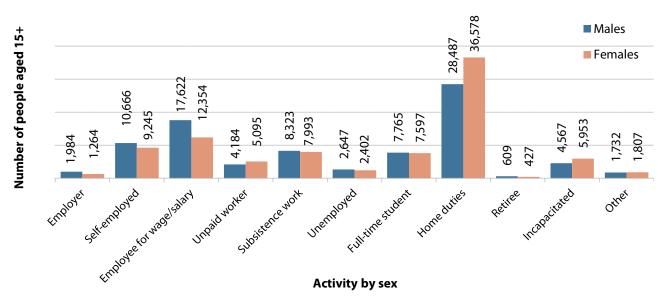


Figure 76. Population 15+ years by sex and labour market activity, Vanuatu: 2020

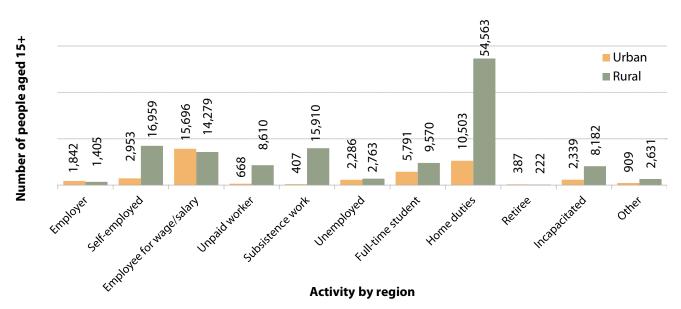


Figure 77. Population 15+ years by region and labour market activity, Vanuatu: 2020

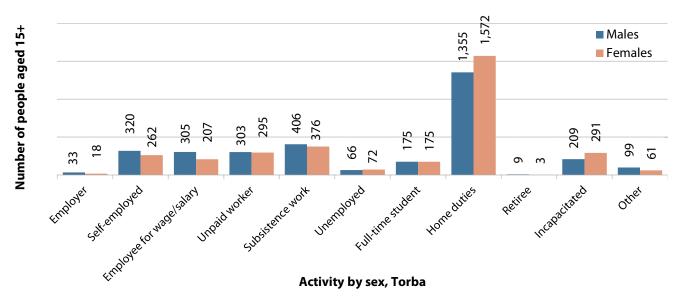


Figure 78. Population 15+ years by sex and labour market activity, Torba: 2020

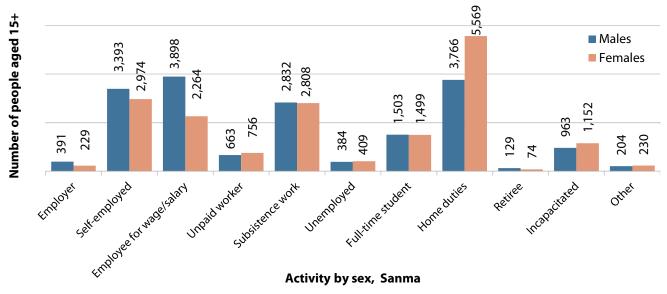


Figure 79. Population 15+ years by sex and labour market activity, Sanma: 2020

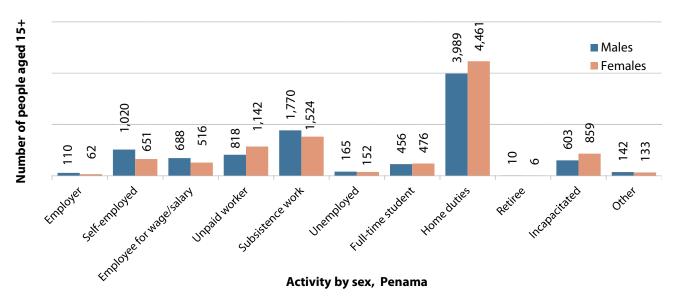


Figure 80. Population 15+ years by sex and labour market activity, Penama: 2020

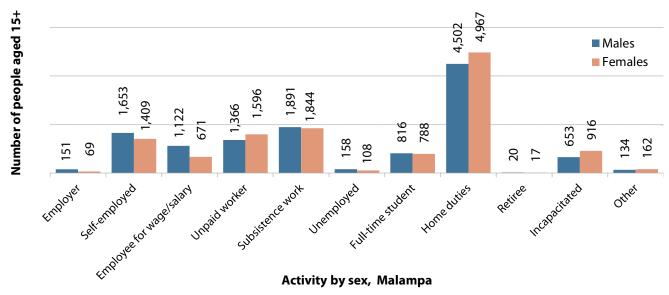


Figure 81. Population 15+ years by sex and labour market activity, Malampa: 2020

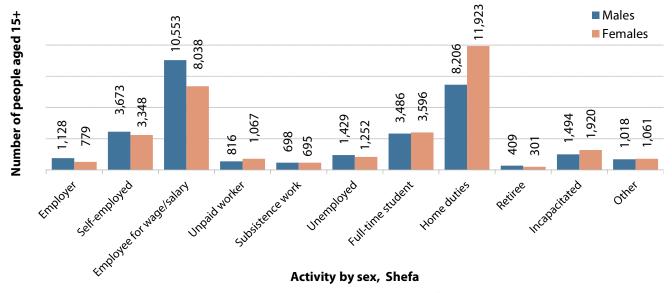
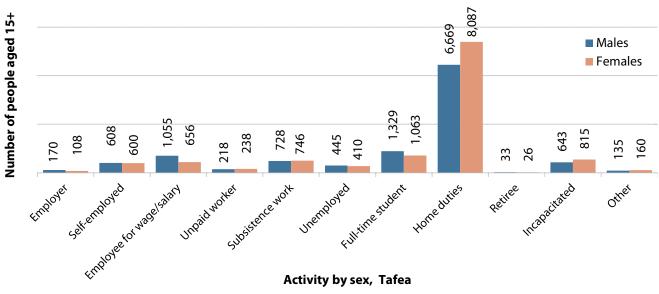
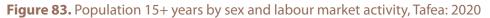


Figure 82. Population 15+ years by sex and labour market activity, Shefa: 2020



Activity by sex, Tafea



4.7.3 Labour force participation rate, employment-population ratio, and unemployment rate

The labour force participation rate (LFPR) is the number of people in the labour force, by a given age and sex and/or place of rural-urban residence, divided by the corresponding total population with the same characteristics, multiplied by 100. The employment-population ratio (EPR) is the same, but uses the total number of people employed, rather than the labour force.

The unemployment rate is the number of people unemployed by a given age and sex and/or place of rural-urban residence, divided by the population in the labour force with the same characteristics, multiplied by 100.

The LFPR was calculated at 46.7% in Vanuatu in 2020. At the same time, the EPR was only 43.9%, and the national unemployment rate was 6.0% (Figs 83–85 and Table 37). The LFPR is much lower than the one registered in 2009 (80.4% for men and 61.4 for women), probably because the 2020 census was carried out during the COVID-19 pandemic, which drove many people out of the labour force.

The LFPR was higher for males (51.5%) than for females (42.1%). The EPR was also higher for males (48.5 for males and 39.4% for females). The pattern of higher male than female LFPRs and EPRs can be observed in all regions of Vanuatu. From an urban-rural perspective, the LFPR was higher in rural than in urban areas, and the EPR was about twice as high in urban than in rural areas. Torba was the province with the lowest EPR and Shefa had the highest.

Unemployment rates were higher for females (6.3%) than males (5.8%), and considerably higher in urban than in rural areas. The lowest unemployment rates were in Malampa, Penama and Sanma, and the highest in Tafea and Shefa.

Table 36. Population 15+ years by sex, place of residence, labour force participation rate, employment-
population ratio, and unemployment rate, Vanuatu: 2020

Residence/Sex	Labour force participation rate	Employment– population ratio	Unemployment rate
Vanuatu	46.7	43.9	6.0
Males	51.5	48.5	5.8
Females	42.1	39.4	6.3
Urban	54.1	48.9	9.6
Males	61.2	55.7	9.0
Females	47.2	42.3	10.3

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Residence/Sex	Labour force participation rate	Employment– population ratio	Unemployment rate
Rural	44.3	42.3	4.6
Males	48.3	46.1	4.5
Females	40.4	38.5	4.8
Torba	40.3	38.2	5.2
Males	44.1	42.1	4.5
Females	36.4	34.3	6.0
Sanma	58.0	55.8	3.8
Males	64.0	61.9	33.3
Females	52.3	50.0	4.4
Penama	43.6	42.0	3.7
Males	47.1	45.5	3.6
Females	40.1	38.6	3.8
Malampa	48.1	47.1	2.2
Males	51.0	49.8	2.5
Females	45.2	44.4	1.9
Shefa	50.0	46.0	8.0
Males	55.7	51.4	7.8
Females	44.6	40.9	8.3
Tafea	24.0	20.6	14.3
Males	27.0	23.3	13.7
Females	21.2	18.0	15.0

The LFPR, EPR and unemployment rates by age and sex and urban–rural residence are presented in Figures 83–91. The general pattern is low participation rates for 15–19 year olds, when many teenagers are still attending school or struggling to enter the labour market, before the rates sharply increase. They reach a plateau at ages 30–54 before gradually decreasing.

It is interesting to see that a large proportion of the population aged 60+ years was still in the labour force, indicating that many older people keep providing economically for themselves and their HHs/ families.

Not surprisingly, the LFPR and EPR were higher for males than for females at all ages. The LFPR for females did not exceed 60% at any age, while that of males was almost 65% at ages 30–49. In terms of the EPR, more than 45% of all males aged 25–54 were employees of the government or private sector. In contrast, the age groups with the highest percentage of females in paid employment did not exceed 42%.

Unemployment rates show a very different pattern from the LFPR and EPR, with the highest unemployment rate for young job seekers aged 15–19 years. The rates decrease rapidly with increasing age but are considerably higher at all ages in urban than in rural areas, and are higher for females than for males.

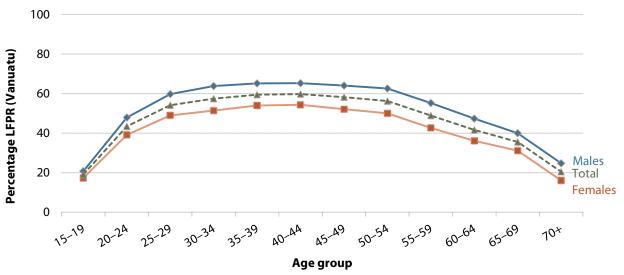


Figure 84. Population 15+ years by age, sex and LFPR, Vanuatu: 2020

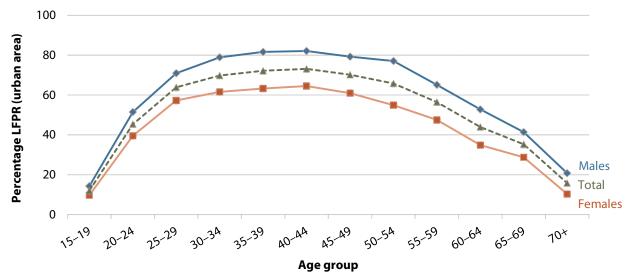


Figure 85. Population 15+ years by age, sex and LFPR, urban areas: 2020

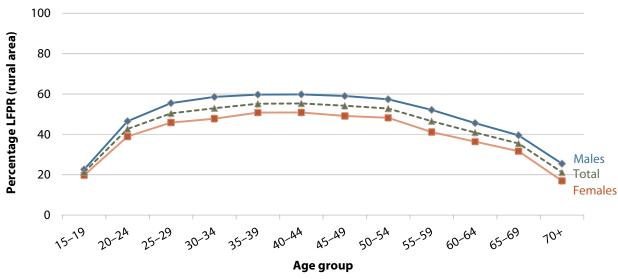


Figure 86. Population 15+ years by age, sex and LFPR, rural areas: 2020

One remarkable feature of Figures 83–85 is that the effect of women withdrawing from the labour force during their childbearing years and returning afterwards seems to be very small. There is a slight drop in the 30–34 year age group, but otherwise the curve for women is very regular.

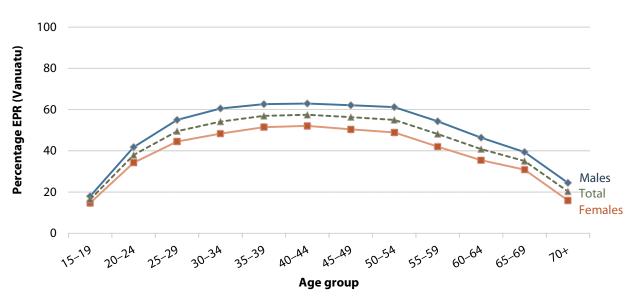


Figure 87. Population 15+ years by age, sex and EPR, Vanuatu: 2020

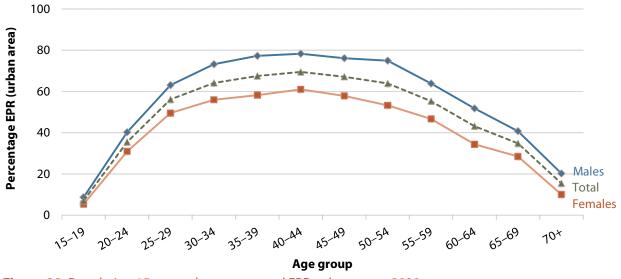


Figure 88. Population 15+ years by age, sex and EPR, urban areas: 2020

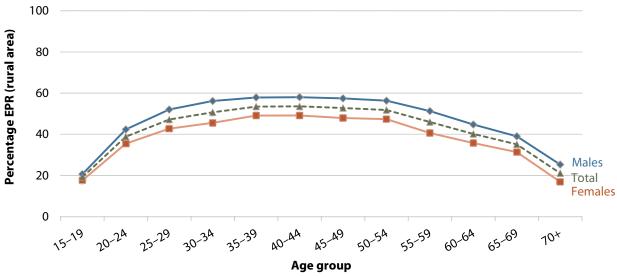


Figure 89. Population 15+ years by age, sex and EPR, rural areas: 2020

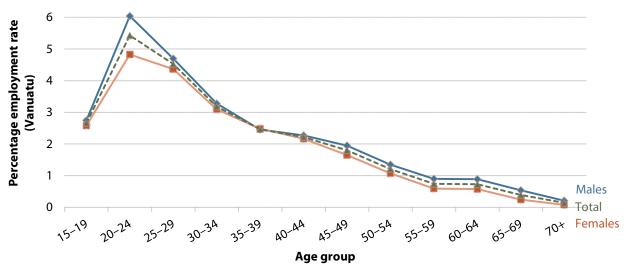


Figure 90. Population 15+ years by age, sex and unemployment rate (% unemployed), Vanuatu: 2020

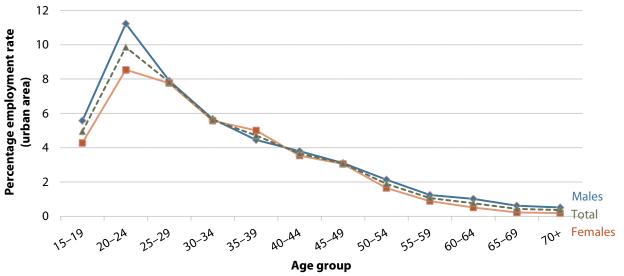


Figure 91. Population 15+ years by age, sex and unemployment rate (% unemployed), urban areas: 2020

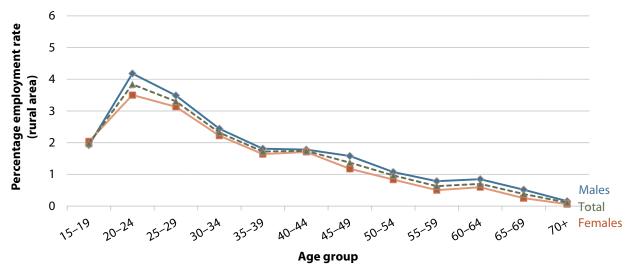


Figure 92. Population 15+ years by age, sex and unemployment rate (% unemployed), rural areas: 2020

4.7.4 Employment status

About 29% of all people in paid employment were working for private enterprises (22,879), which comprised 19,631 private employees and 3,248 employers. Another 20.7% produced goods for

own consumption (16,317), 13.1% were working in the public service (10,345), and 25.3% were self-employed (19,911).

Again, this pattern is very different for urban and rural areas, and for each province. While only 1.9% of all people currently employed in urban areas produced goods for own consumption, 27.8% did so in rural areas. In the provinces of Torba, Penama and Malampa, the figure was over 30%. On the other hand, 50.4% of urban workers worked as private employees in contrast to only 15.3% in rural areas.

The highest proportion of government employees were in Shefa and Tafea (17.8%), and the lowest proportion in Penama and Malampa (only 8.7% of all employed people). The highest proportions of employees in the private sector were found in Shefa (42.5%) and the lowest proportion in Penama (only 5.8%). The highest percentage of self-employed people were in Sanma (31.5%), whereas Malampa had the highest percentage of unpaid workers (25.2%).

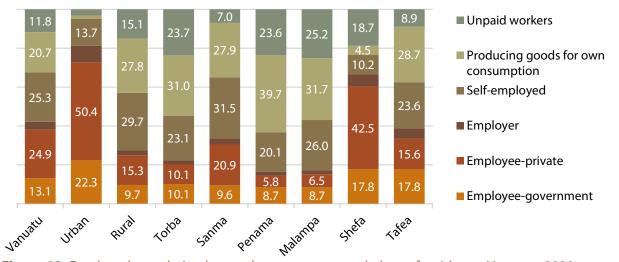


Figure 93. Employed population by employment status and place of residence, Vanuatu: 2020

4.7.5 Employed population by industry group

The vast majority of employed people in Vanuatu worked in the agriculture, forestry, and fishing sector with 33,338 people (42.3%). The second and third largest groups were employed in wholesale and retail trade, repair of motor vehicles (4,787 employees), and HH activities. Production of undifferentiated goods and services for HHs own use involved 4,597 workers, followed by education, with 4,276 workers. In 2009, women predominated in HH activities, but most other industry groups employed more males than females. In 2020, this situation has become more diverse as there are now several sectors (education, accommodation and food services, wholesale and retail trade, human health and social work) that employ more female than male workers.

A comparison of urban-rural areas showed a different employment situation. More than half of all employed people in rural areas were in the agriculture, forestry and fishing sector (32,617), in contrast to only 3.3% of all employed people in urban areas (720). On the other hand, while the manufacturing sector in Vanuatu is small, more than half (54.5%) of workers in this sector were in urban areas. Electricity, gas, steam and air conditioning (62.4%), financial and insurance activities (59.2%) and wholesale and retail trade (56.1%) were also predominantly urban activities. In the case of public administration, defence, and compulsory social security, the share of urban areas was even at 69.8%.

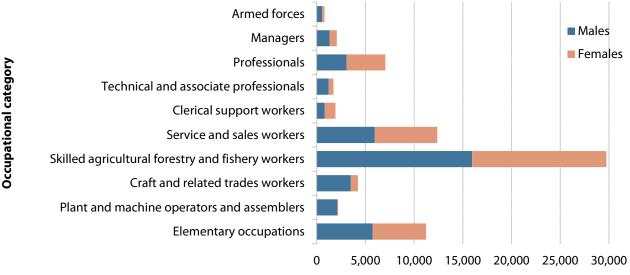
Economic sector	Urban		Rural	
	Men	Women	Men	Women
Accommodation and food services activities	488	837	430	761
Activities of extraterritorial organisations and bodies	180	135	331	145
Activities of HHs as employers: undifferentiated goods and services producing activities of HHs for own use	192	644	1,497	2,264

Francisconten	Urk	oan	Rural	
Economic sector	Men	Women	Men	Women
Administrative and support service activities	591	532	521	392
Agriculture, forestry and fishing	426	294	17,310	15,308
Arts, entertainment and recreation	189	166	131	166
Construction	1,508	35	2,328	54
Education	431	771	1,182	1,892
Electricity, gas, steam and air conditioning supply	202	51	129	24
Financial and insurance activities	286	345	173	262
Human health and social work activities	283	414	346	458
Information and communication	199	138	200	96
Manufacturing	970	712	733	667
Mining and quarrying	22	6	41	5
Other service activities	767	884	1,245	1,131
Professional, scientific and technical activities	219	102	173	103
Public administration and defence; compulsory social security	1,056	436	502	145
Real estate activities	40	29	57	44
Transportation and storage	1,233	173	1,379	62
Water supply, sewerage, waste management and remediation activities	74	14	68	11
Wholesale and retail trade; repair of motor vehicles and motorcycles	1,195	1,491	1,029	1,072
Unknown	1,559	1,249	1,184	1,110
Total	12,109	9,458	30,990	26,172

4.7.6 Employed population by occupational group

The largest numbers of employed workers were in the category of skilled agricultural forestry and fishery workers with 29,745 people or 37.8% of all employed people (Figs 93 and 94). Note that this is a significant reduction compared to 2009 when 53% of workers were in this category. The second largest occupational group, with 15.7%, were service and sales workers (12,376), followed by elementary occupations with 14.3% (11,226), and professionals, with 8.9% (7,046).

More females than males were employed in elementary occupations, and as professionals, service and sales workers and clerical support workers, but all other categories were dominated by males. This was especially the case for plant and machine operators and assemblers, and craft and related trades.



Number of people

As with industry, the difference between urban and rural areas in terms of occupational groups is evident: almost all skilled agricultural forestry and fishery workers resided in rural areas (29,173), where they made up 51% of all workers, with only 572 in urban areas. This too is a change compared to 2009, when about two thirds of rural workers fell into this category.

On the other hand, while 24.9% of all occupations in urban areas involved service and sales work, and another 7.8% involved craft and related trades work, these categories were substantially smaller (12.3 and 4.5%, respectively) in rural areas. It is also worth noting that 13.0% of all occupations in urban areas were professionals, compared to just 7.4% in rural areas. Still, a comparison with 2009 indicates some equalisation as the percentages then were 16 and 5%, respectively.

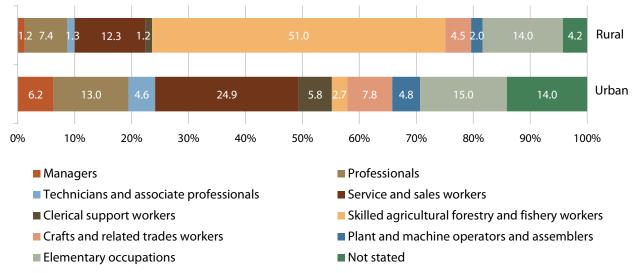


Figure 95. Employed population by place of residence and occupation, Vanuatu: 2020

4.7.7 Population working overseas

The census included a question on whether a person worked for money overseas during the last 12 months before the census. Just over 3% (6,136) of the population 15+ years answered yes (4,736 males and 1,399 females). This is less than in 2009 when 7,895 workers answered they had worked overseas. This reduction was entirely accounted for by the employment of women, which fell from 3,465 to 1,399. The numbers of overseas workers were unevenly divided among the different provinces. Just over half (52.1%) of all workers were from Shefa province. The numbers for the other provinces were 17.3% for Sanma, 11% each for Malampa and Tafea, 4.6% for Penama and 4.0% for Torba.

Vanuatu enjoys the benefits of migrant labour agreements with New Zealand and Australia. The New Zealand Recognised Seasonal Employer (RSE) programme began with a pilot in 2007 and expanded in following years. In 2021/2021, the programme admitted 14,400 workers from nine countries in the Pacific. The Pacific Australia Labour Mobility Programme (PALM) is a similar initiative that began in 2009. It has two modalities: the Seasonal Worker Programme (SWP) and the Pacific Labour Scheme (PLS). The workers are mostly unskilled and are mainly involved in agricultural work. The largest contingent of workers from Vanuatu (3,062) was employed by the RSE programme, followed by the SWP (1,789) and PLS programmes (190). Another 250 workers were employed by a similar programme in New Caledonia, and 845 worked elsewhere.



5. HOUSEHOLD CHARACTERISTICS

5.1. Household size

The number of (private) HHs increased from 27,000 in 1989 to 63,400 in 2020, which is an overall increase of more than 36,000 HHs (Table 39).

In addition, there were 302 non-private dwellings (institutions) and 63 mobile HHs in 2020, including accommodation such as hotels and hostels for short-term visitors, hospitals and a prison.

The overall average HH size decreased from 5.2 to 4.6 people per HH between 1989 and 2020. HH growth rates also decreased, from 3.0% to 2.7% between 1989–99 and 2009–2020 (Table 40).

Table 38. Population in private HHs, number of private HHs and average HH size, by place of residence, Vanuatu: 1989, 1999, 2009 and 2020

Place of	Number of people living in private HHs				Number of private HHs				Average HH size			
residence	1989	1999	2009	2020	1989	1999	2009	2020	1989	1999	2009	2020
Vanuatu	142,419	186,678	228,883	293,963	27,167	36,415	47,373	63,365	5.2	5.1	4.8	4.6
Urban	25,870	40,094	56,016	65,867	4,576	8,258	11,606	14,702	5.7	4.9	4.8	4.5
Rural	116,549	146,584	172,867	228,095	22,591	28,157	35,767	48,663	5.2	5.2	4.8	4.7
Torba	5,985	7,757	9,189	11,215	1,074	1,339	1,766	2,392	5.6	5.8	5.2	4.7
Sanma	25,542	36,084	44,287	59,652	4,771	6,970	9,213	12,890	5.4	5.2	4.8	4.6
Penama	22,281	26,646	29,926	34,123	4,488	5,371	6,620	7,863	5.0	5.0	4.5	4.3
Malampa	28,174	32,705	36,060	41,506	5,721	6,483	7,991	9,715	4.9	5.0	4.5	4.3
Shefa	38,023	54,439	77,047	102,569	6,713	10,888	15,930	22,266	5.7	5.0	4.8	4.6
Tafea	22,414	29,047	32,374	44,899	4,400	5,364	5,853	8,239	5.1	5.4	5.5	5.4

Table 39. Number of private HHs and HH change, Vanuatu: 1989, 1999, 2009 and 2020

	Ν						HH ch		Doubling times				
Place of	NU	mber of	private H	ĦS	In numbers			Growth rates			Doubling times		
residence	1989	1999	2009	2020	1989– 1999	1999– 2009	2009– 2020	1989– 1999	1999– 2009	2009– 2020	1989– 1999	1999– 2009	2009– 2020
Vanuatu	27,167	36,415	47,373	63,365	9,248	10,958	15,992	3.0	2.7	2.7	23.3	26.0	25.9
Urban	4,576	8,258	11,606	14,702	3,682	3,348	3,096	6.1	3.5	2.2	11.4	20.0	31.9
Rural	22,591	28,157	35,767	48,663	5,566	7,610	12,896	2.2	2.4	2.8	31.1	28.6	24.4
Torba	1,074	1,339	1,766	2,392	265	427	626	2.2	2.8	2.8	31.1	24.7	24.8
Sanma	4,771	6,970	9,213	12,890	2,199	2,243	3,677	3.9	2.8	3.1	17.9	24.5	22.4
Penama	4,488	5,371	6,620	7,863	883	1,249	1,243	1.8	2.1	1.6	38.2	32.8	44.0
Malampa	5,721	6,483	7,991	9,715	762	1,508	1,724	1.3	2.1	1.8	55.1	32.8	38.7
Shefa	6,713	10,888	15,930	22,266	4,175	5,042	6,336	5.0	3.9	3.1	14.0	17.9	22.4
Tafea	4,400	5,364	5,853	8,239	964	489	2,386	2.0	0.9	3.2	34.6	79.1	22.0

Tafea province had the highest average HH size with 5.4 persons per HH. Average HH size for Penama and Malampa were the lowest with both having 4.3 people per HH.

In 2020, the most common HH size was 4, accounting for 18.6% of all private HHs (Table 41). The highest proportion of people, however, lived in HHs with 5 people, which accounted for 17.7% of all people.

Just over 4% of the population lived in HHs with 12 or more people, while 1.4% of the population lived in single-person HHs, which accounted for 6.6% of all HHs.

HH size	Priva	ate HHs	People	by HH size
	Number	Percentage	Number	Percentage
1	4,195	6.62	4,195	1.43
2	7,549	11.91	15,098	5.14
3	10,187	16.08	30,561	10.40
4	11,793	18.61	47,172	16.05
5	10,394	16.40	51,970	17.68
6	7,624	12.03	45,744	15.56
7	4,883	7.71	34,181	11.63
8	2,788	4.40	22,304	7.59
9	1,592	2.51	14,328	4.87
10	986	1.56	9,860	3.35
11	546	0.86	6,006	2.04
12+	827	1.31	12,544	4.27
Total	63,365	100	293,963	100

Table 40. Percentage distribution of private HHs by HH size and people per HH, Vanuatu: 2020

5.2. Household composition

Data on HH composition was established by identifying a head of HH who served as a reference person to whom all other people in the HH, in terms of family membership, were related (Table 42).

Approximately four out of five heads of HH (80.2%) in Vanuatu were men (49,931), with one in five (12,356) HHs headed by women. Sons and daughters made up the most HH members with 40.4%. Spouses of head of HHs comprised 15.7% of total HH members.

Seven percent of all HH members were other relatives or not related to the head of HH. Interestingly, there were only 1,862 male spouses recorded in the census, while there were 12,356 female heads of HHs. This happens because a woman is in most cases only the head of HH if she has no spouse, or if the spouse is not present (overseas).

Delationchin		n numbers	5	In percentages					
Relationship	Total	Males	Females	Total	Males	Females			
Head of HH	62,287	49,931	12,356	21.2	33.7	8.5			
Spouse of head	46,189	1,862	44,327	15.7	1.3	30.4			
Son/daughter	118,809	63,763	55,046	40.4	43.0	37.8			
Adopted son/daughter	4,726	2,345	2,381	1.6	1.6	1.6			
Son/daughter-in-law	6,281	2,264	4,018	2.1	1.5	2.8			
Grandchild	24,341	12,774	11,567	8.3	8.6	7.9			
Parents/parents-in-law	4,708	1,573	3,135	1.6	1.1	2.2			
Brother/sister (in-law)	6,223	3,435	2,788	2.1	2.3	1.9			
Other relatives	19,418	9,901	9,517	6.6	6.7	6.5			
Not related/friend	972	499	474	0.3	0.3	0.3			
Total	293,954	148,347	145,607	100.0	100.0	100.0			

Table 41. Population by HH composition (relationship to head of HH), Vanuatu: 2020

5.3. Household income

In 2020, wages and salaries made up 32.8% of the main source of HH income in Vanuatu. Another 32.3% of the main HH income was from sales of cash crops; 16.8% of HH income came from own business activities; 5.3% was money sent from overseas; and 12.8% was from other sources. The contribution of money sent from overseas can be considered moderately high.

In comparing income distribution in urban and rural areas, Table 43 shows that 85.4% of all urban HHs stated their main source of income was wages or salary, which was the case for only 60.7% of all rural HHs. By contrast, 20.9% of all rural HHs stated their main source of income was from the sale of cash crops, compared to only 1.0% for urban HHs. The percentage is particularly high in Penama (33.1%).

When comparing HH income distribution by province, it is evident that sales of cash crops, and wages or salaries were the predominant contributors to HH income, followed by profit from own businesses (Table 43).

Main source of income	Vanuatu	Urban	Rural	Torba	Sanma	Penama	Malampa	Shefa	Tafea
Wages and salary	67.0	85.4	60.7	57.4	70.1	53.0	56.1	75.3	65.0
Income from leasing land	0.2	0.1	0.3	0.0	0.4	0.1	0.1	0.3	0.2
House rent	0.9	2.6	0.4	0.3	0.7	0.2	0.1	1.8	0.7
Money sent from overseas	2.6	1.9	2.9	1.4	2.0	1.4	4.1	2.9	2.7
Money sent internally	2.5	0.8	3.1	1.5	2.4	3.7	5.6	1.1	2.7
Sale of cash crops	15.9	1.0	20.9	23.3	15.1	33.1	20.0	8.1	17.1
Sale of handicrafts	1.9	0.4	2.4	1.9	0.4	2.4	3.4	1.5	3.4
Profit from own business	8.2	7.4	8.5	12.9	7.6	5.5	10.0	8.6	7.5
Interest from bank deposit	0.3	0.2	0.3	0.4	0.2	0.5	0.3	0.2	0.7
Disaster relief fund	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Pension payment	0.3	0.1	0.4	0.0	1.0	0.0	0.3	0.1	0.0
Other source of income	0.1	0.0	0.1	0.6	0.1	0.0	0.0	0.1	0.0
Not stated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 42. Percentage distribution of the main source of income of private HHs* by region, Vanuatu: 2020

* The table is based on the 56,975 HHs for which information is available.

5.4. Amenities and capital goods

Please note that the data for this section are presented as percentages of all private HHs by place of residence.

5.4.1 Private households by housing and land tenure

The majority of HHs in Vanuatu (78.1%) owned their dwelling outright (Fig. 95), 8.8% rented their dwelling and 10.3% stayed in a rent-free dwelling. The proportion of HHs renting was highest in urban areas at 31.9%. Shefa province had the highest proportion of HHs renting (21.5%) compared to other provinces.

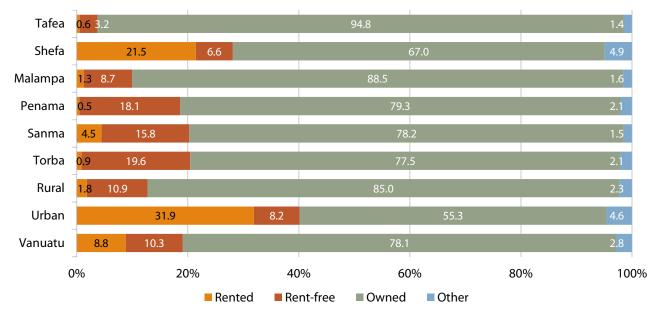


Figure 96. Proportion of private HHs by place of residence and housing tenure, Vanuatu: 2020

The majority of HHs in Vanuatu (72.7%) resided on customary land (Fig. 96); 10.6 lived on urban land leases; and 5.6% lived on rural land leases. The remaining 11.1% lived on land occupied without payment, in informal or other arrangements.

In urban areas, 26% of HHs had urban leases. This was a substantial decrease on 2009 when it was 48%. Even in urban areas, 21.2% of the land was occupied based on a rural lease and 40.6% was customary. Rural areas had 79.0% of HHs living on customary land, 8.5% had a rural lease and the remaining 12.5% had other arrangements, including urban leases, occupation without payment and informal arrangements.

Shefa and Sanma have similar patterns of land tenure distribution because both have significant urban areas, even though Shefa has a higher prevalence of urban leases and Sanma a higher percentage of informal arrangements.

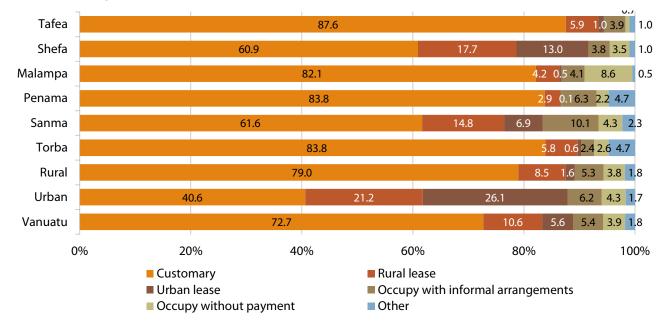


Figure 97. Proportion of private HHs by place of residence and land tenure, Vanuatu: 2020

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5.4.2 Private households by living quarters

For the majority (79.9%) of Vanuatu HHs, living quarters consisted of one family house detached from any other house; 16.2% of HHs lived in one family house attached to one or more houses; and 1.5% of HHs lived in buildings with two or more apartments (Fig. 97).

The number of family houses attached to one or more houses was much higher in urban (35.4%) than in rural areas (10.4%). It was also much higher in Shefa province (24.9%) compared to other provinces.

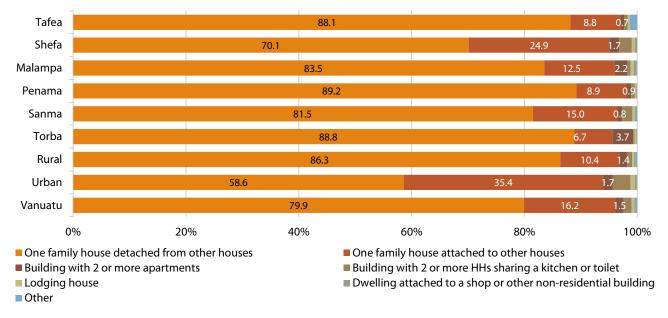


Figure 98. Proportion of private HHs by place of residence and living quarters, Vanuatu: 2020

5.4.3 Private households by age of dwelling

The distribution of dwellings by age of dwelling is displayed in Figure 98. It shows that 36.6% of all dwellings in Vanuatu were between 1 and 5 years old; 16.6 % were between 6 to 9 years; 17.7% were between 10 to 19 years; 20.2% were 20 years or older; and 7.3% were recently built and less than 1 year old. Most urban dwellings were 10+ years, while most dwellings in rural areas were less than 10 years old. The small number (3.5%) of urban homes built during the past year is a consequence of the saturation of urban building space, which pushes new construction toward the periphery. As a result, most new construction in urban areas merely replaces older buildings.

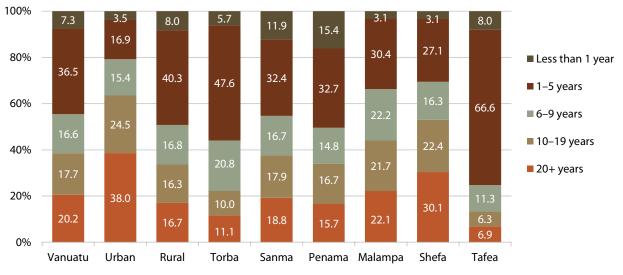


Figure 99. Proportion of private HHs by place of residence and age of dwelling, Vanuatu: 2020

5.4.4 Private households by number of rooms

The distribution of dwellings by number of rooms is displayed in Table 44. It shows that 37.3% of homes in Vanuatu had 2 rooms, while another 21.8% had 3 rooms, 21.9% had 1 room and 11.8% had 4 rooms. The average number of rooms was 2.5 rooms per dwelling. The number of rooms was higher in urban than in rural areas, and lower in Penama and Tafea than in the other provinces.

	1	2	3	4	5	6	7	8+	Average
Vanuatu	21.9	37.3	21.8	11.8	4.5	1.5	0.6	0.6	2.50
Urban	21.5	35.4	23.5	11.5	4.5	1.9	0.9	0.8	2.56
Rural	22.0	37.8	21.3	11.9	4.5	1.4	0.5	0.5	2.48
Torba	29.8	43.0	17.6	6.4	2.0	0.7	0.2	0.4	2.63
Sanma	22.0	35.2	21.7	12.9	5.0	1.7	0.6	0.8	2.56
Penama	26.1	39.1	20.5	9.5	3.0	1.0	0.5	0.3	2.30
Malampa	13.4	43.5	24.6	12.4	4.2	1.2	0.4	0.4	2.57
Shefa	19.2	32.2	24.1	15.6	5.7	1.9	0.6	0.6	2.55
Tafea	29.7	39.0	15.2	9.2	4.9	1.2	0.5	0.3	2.28

Table 43. Percentage distribution of number of rooms per dwelling by place of residence, Vanuatu: 2020

5.4.5 Private households by construction material used for dwelling

Thirty-four percent of the materials used for the walls of private dwellings were traditional materials, down from 43% in 2009, followed by concrete, cement and brick (32.1%); 20.6% of dwellings had metal walls; 7.2% had wood or timber walls; and 4.2% were made of makeshift or improvised materials (Fig. 99). Concrete, cement and brick walls are used more often in urban areas compared to the use of traditional materials in rural areas.

Roofing metal accounted for 54.7% of the material used for roofs (Fig. 100); 39.8% of dwellings used traditional roofing material. Metal roofing was commonly used in urban areas (89.9%), while traditional material was most common (50.8%) in rural areas.

Almost 70% of all dwellings in Vanuatu had concrete (cement) floors (Fig. 101), which was the preferred material for floors in all provinces except Tafea where traditional materials were preferred. In Torba and Penama, there was also a substantial proportion of homes with earth floors, here classified as 'Other'.

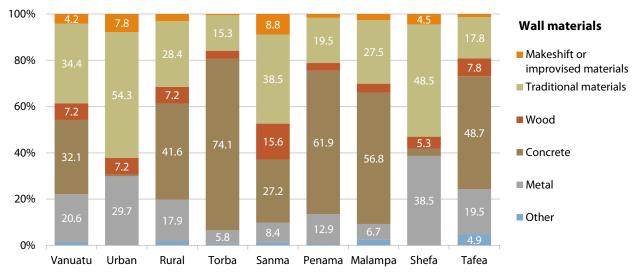
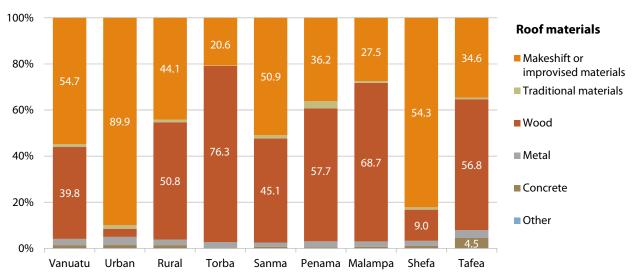


Figure 100. Proportion of private HHs by place of residence and main type of material used for the walls of dwellings, Vanuatu: 2020



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Figure 101. Proportion of private HHs by place of residence and main type of material used for the roofs of dwellings, Vanuatu: 2020

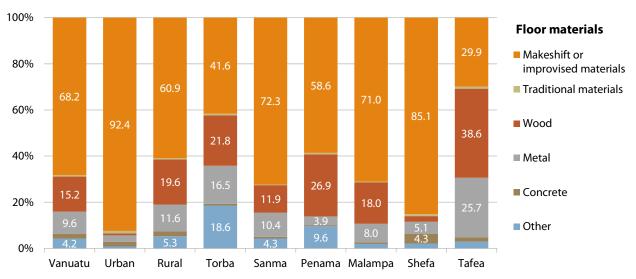


Figure 102. Proportion of private HHs by place of residence and main type of material used for the floors of dwelling, Vanuatu: 2020

5.4.6 Private households by water source for drinking and washing

The distribution of Vanuatu dwellings by main source of drinking water is displayed in Figure 102. It shows that the largest percentage of dwellings (24.8%) used a shared pipe, 20.5% had their own private pipe, 19.5% used a shared rainwater tank and 15.7% a private rainwater tank, while 5.9% relied on a river, lake or spring. As expected, private piped water was more widely used in urban areas (43.5%) than in rural areas (13.5%) where shared rainwater tanks were the most common (23.6%) sources of drinking water. The main source of drinking water varies widely between provinces.

The distribution of dwellings by main source of washing water is displayed in Figure 103. Again, there is wide variation between provinces.

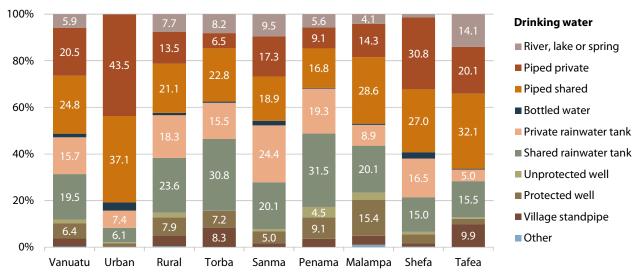
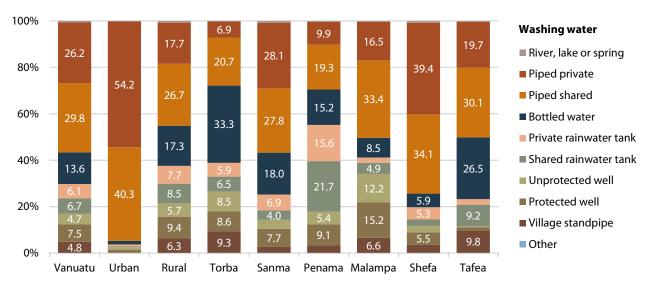


Figure 103. Proportion of private HHs by place of residence and main source of drinking water, Vanuatu: 2020





5.4.7 Private households by main energy source for lighting and cooking

The main source of energy for lighting in Vanuatu was a solar panel with battery used by 36.2% of all HHs (Table 45). A further 31.1% of all HHs used solar-powered lamps and 30.0% used electricity from the main grid. This is a huge shift compared to 2009 when 48.0% of HHs used kerosene lamps, a device that has now disappeared almost entirely. Not surprisingly, urban areas and Shefa province shared the highest use of electricity from the main grid. The use of other kinds of lighting was minimal, the highest percentage being the 2.2% of HHs in Torba province that used battery-powered lamps.

The main source of energy for cooking was an open fire with wood/coconut shells, used by 74.8% of all HHs in Vanuatu (Table 46). Although this was still an overwhelming majority of HHs, 85% of HHs cooked this way in 2009. Twelve percent of all HHs used LPG gas. However, gas use was more dominant in urban areas (38.1%) and Shefa province (28.7%) compared to the other provinces where the use of wood/coconut shells was far more common.

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ltem	Vanuatu	Urban	Rural	Torba	Sanma	Penama	Malampa	Shefa	Tafea
Electricity (grid)	30.0	82.9	14.1	2.0	27.9	1.0	9.9	60.1	11.7
Own generator	0.3	0.1	0.3	0.7	0.3	0.6	0.2	0.3	0.0
Electricity (off grid)	0.2	0.1	0.3	0.0	0.1	0.1	0.5	0.3	0.0
Solar panel/bat.	36.2	9.3	44.4	48.7	46.9	42.8	53.5	24.6	20.9
Solar lamp	31.1	6.1	38.6	45.7	22.8	53.0	33.8	13.2	64.0
Pressure lamp	0.1	0.0	0.1	0.2	0.3	0.1	0.1	0.0	0.1
Kerosene lamp	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.3
Battery lamp	1.2	0.4	1.4	2.2	1.0	1.9	1.3	0.6	1.8
LPG lamp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Candles	0.3	0.8	0.2	0.2	0.2	0.1	0.1	0.7	0.2
Wood/coconut	0.2	0.1	0.3	0.2	0.2	0.3	0.2	0.0	0.7
Other sources	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.2	0.2
Not stated	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0

Table 44. Percentage of private HHs by place of residence and main source of lighting, Vanuatu: 2020

Table 45. Percentage of private HHs by place of residence and main fuel for cooking, Vanuatu: 2020

ltem	Vanuatu	Urban	Rural	Torba	Sanma	Penama	Malampa	Shefa	Tafea
Electricity	5.9	16.2	2.8	0.3	4.4	0.0	2.3	12.4	2.3
LPG bottled gas	12.0	38.1	4.1	0.5	6.8	1.7	0.8	28.6	1.3
Kerosene	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Solar power	4.3	1.3	5.2	3.6	3.3	4.1	7.6	2.6	6.8
Wood stove	2.2	3.0	1.9	0.1	2.4	3.2	1.1	2.7	1.2
Open fire	74.8	38.8	85.7	95.5	82.9	90.8	87.6	51.7	88.3
Charcoal	0.7	2.3	0.2	0.1	0.0	0.0	0.3	1.8	0.0
Sawdust	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Other sources	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Not stated	0.1	0.1	0.1	0.0	0.2	0.0	0.1	0.0	0.0

5.4.8 Private households by main toilet facility

At 36.1%, the private pit latrine was the main toilet facility used in Vanuatu (Fig. 104); 12.3% used a private ventilated improved pit latrine (VIP)¹⁴; 11.5% of all HHs used a private flush toilet; 10.9% used a shared pit latrine; and 7.2% used a shared flush toilet.

Thirty-six percent of all urban HHs used a private flush toilet and 24.2% of HHs used a shared flush toilet. Rural areas tend to use a private pit latrine, private VIP or shared pit latrine.

¹⁴ The ventilated improved pit latrine, or VIP, is a pit toilet with a pipe (vent pipe) fitted to the pit, and a screen (fly screen) at the top outlet of the pipe. VIP latrines are designed to overcome the disadvantages of simple pit latrines, i.e. fly and mosquito nuisance and unpleasant odours. The smell is carried upwards by the chimney effect and flies are prevented from leaving the pit and spreading disease. (Source: Wikipedia).

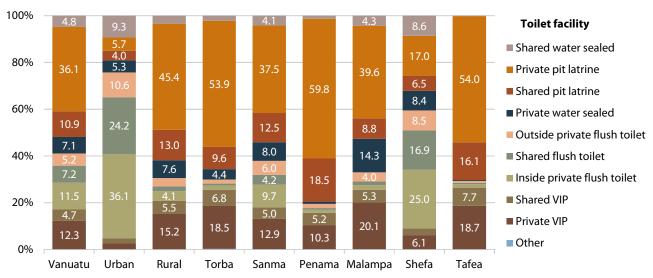


Figure 105. Proportion of private HHs by place of residence and main type of toilet facility, Vanuatu: 2020

5.4.9 Private households by means of communication

Only 0.7% of all HHs in Vanuatu had a landline phone available (Table 47). In urban areas this percentage was slightly higher (1.7%). The majority of HHs in Vanuatu (76.4%) had access to one or more mobile phones. In urban areas, 90.1% of HHs owned a mobile phone compared to 72.3% of rural HHs. The majority of HHs in Tafea owned a mobile phone (56.7%), but this percentage was well below the national average.

The number of HHs with an internet connection was modest in Vanuatu. Only 6.2% of all HHs had access to the internet. Still, this is double what it was in 2009. Even in urban areas, this percentage was only 12.8%. Laptops and tablets are becoming relatively common, however; 21.2% of HHs had a laptop and 14.9% had a tablet.

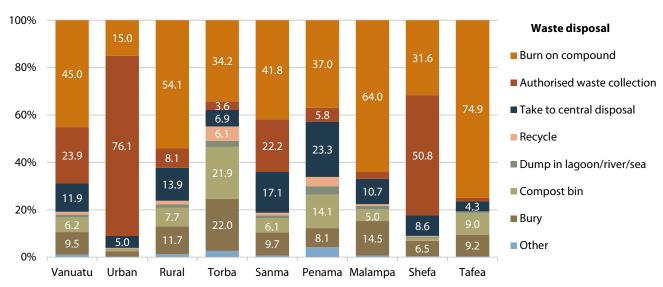
Devices	Vanuatu	Urban	Rural	Torba	Sanma	Penama	Malampa	Shefa	Tafea
Desktop computer	2.2	6.5	0.9	0.2	1.6	0.1	0.4	4.9	0.5
Laptop	21.2	43.6	14.4	14.0	17.7	6.5	11.4	37.3	10.9
Tablet	14.9	23.3	12.4	11.9	14.2	7.2	10.8	23.1	7.1
Mobile phone	76.4	90.1	72.3	69.3	77.5	68.1	74.1	87.9	56.7
Landline	0.7	1.7	0.5	0.0	0.7	0.1	0.2	1.5	0.1
Internet connection	6.2	12.8	4.2	4.3	4.1	4.8	3.4	11.0	1.5
Satellite phone	0.4	0.3	0.4	0.1	0.1	0.1	0.5	0.5	0.8

Table 46. Percentage of private HHs with access to various communication devices, by place of residence, Vanuatu: 2020

5.4.10 Private households by main means of waste disposal

During the 2020 census, information was collected on how HHs manage their waste. There were eight different means of waste disposal in Vanuatu: authorised waste collection; taking waste to a central place; burning; recycling; lagoon/ocean/stream; burying; composting; and other means.

In Vanuatu, 45.0% of all HHs burned waste, 23.9% used authorised waste collection and 11.9% took waste to a central place (Fig. 105). In urban areas, 76.1% of HHs used the authorised waste collection. In contrast, there was very little waste collection in rural areas. Burning waste was widely used by rural HHs (54.1%) as the main means of disposal compared to 15.0% of urban HHs. Almost 4% of all HHs in Penama disposed of waste in the lagoon, ocean or stream. Recycling is rare, except in Torba, where 6.1% of HHs recycle waste.



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Figure 106. Proportion of private HHs by place of residence and main mode of waste disposal, Vanuatu: 2020

5.4.11 Private households involved in agricultural cash crop and fisheries activities

The 2020 census included several questions on whether HHs were engaged in agricultural and fisheries activities. As expected, involvement in agricultural cash cropping was more common in rural areas than in urban areas.

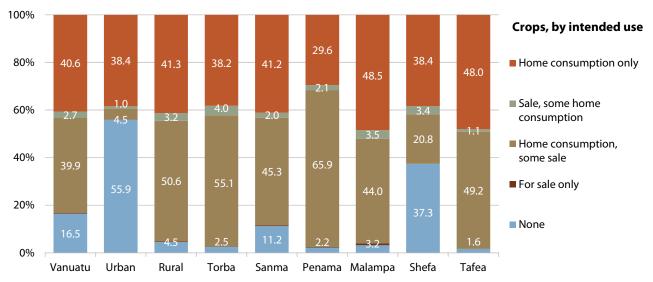


Figure 107. Number of private HHs involved in growing agricultural crops, by intended use, Vanuatu: 2020



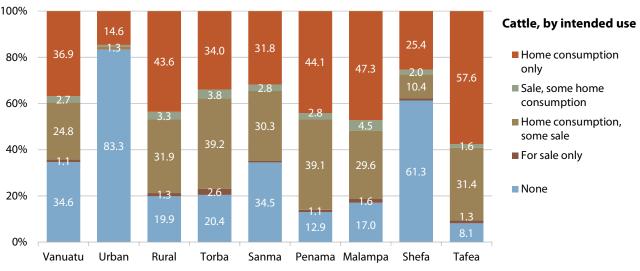


Figure 108. Number of private HHs involved in raising cattle, by intended use, Vanuatu: 2020

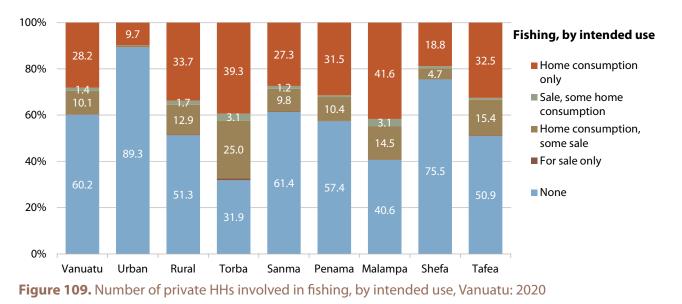


Table 48 shows the engagement of HHs in various agricultural cash crops such as kava, coconut, cocoa, coffee, sandalwood, pepper, vanilla and other crops. The most common crops were island cabbage (76.6%), banana (76.3%), taro (70.2%) and yam (60.3%). About 40% of HHs cultivated kava. The province with the highest involvement in kava cultivation was Penama, where 81.5% of all HHs engaged in kava production. This is in contrast to urban HHs with only 3.8% engaging in kava activity. Malampa province led coconut agricultural activity, with 43.4% of HHs engaged in coconut cultivation. In urban areas, the most common crops were island cabbage (39.3%) and banana (37.0%).

Table 47. Proportion of	private HHs by place of	residence and agricultural	crops, Vanuatu: 2020
	private in is by place of	residence and agricultural	crops, randatar LoLo

Crops	Vanuatu	Urban	Rural	Torba	Sanma	Penama	Malampa	Shefa	Tafea
Kava	41.8	3.8	53.3	66.0	48.7	81.5	45.5	11.7	63.6
Coconut	25.4	4.6	31.8	26.5	32.0	12.3	43.4	16.3	31.1
Сосоа	8.6	0.4	11.1	0.5	11.6	3.2	33.5	1.6	1.2
Coffee	2.0	0.1	2.5	0.0	0.6	0.1	0.4	0.5	12.1
Sandalwood	14.5	2.2	18.3	3.6	12.7	4.7	20.4	8.9	38.1
Pepper	1.0	0.2	1.2	0.3	1.5	0.5	1.2	0.5	1.6
Vanilla	1.7	0.3	2.1	0.5	2.1	0.6	3.2	1.0	2.7
Pineapple	29.9	9.4	36.1	46.9	35.0	34.3	46.6	22.6	12.9

Crops	Vanuatu	Urban	Rural	Torba	Sanma	Penama	Malampa	Shefa	Tafea
Taro	70.2	27.8	83.0	81.8	79.1	88.3	84.8	46.6	82.5
Banana	76.3	37.0	88.2	89.4	82.5	91.0	90.6	56.5	85.7
Cucumber	47.6	16.8	56.9	45.6	62.1	51.1	64.7	29.1	52.0
Island cabbage	76.6	39.3	87.8	89.9	84.0	92.2	88.2	58.0	82.5
Watermelon	23.4	4.4	29.2	42.0	25.3	25.2	33.0	12.4	31.9
Cassava	58.9	30.0	67.6	72.0	58.8	66.4	62.0	50.4	67.7
Pumpkin	31.8	13.4	37.3	29.3	42.1	27.7	43.8	20.9	35.7
Sweet potato	42.6	16.6	50.4	49.1	50.0	63.9	40.6	30.6	43.6
Rice	1.2	0.2	1.4	1.1	2.7	0.4	1.0	0.4	1.6
Peanut	15.8	3.3	19.5	15.0	27.3	6.5	19.9	10.3	16.9
Yam	60.3	17.6	73.3	86.7	65.2	70.0	80.4	38.5	71.2
Vegetables	56.2	27.5	64.9	60.4	68.7	64.3	71.1	40.3	53.4
Corn	55.2	18.7	66.3	56.6	65.3	59.3	73.7	35.5	66.8
Pawpaw	47.4	22.8	54.8	52.6	59.2	44.1	55.0	39.3	43.4
Tahitian lime	3.4	1.2	4.1	0.9	3.2	0.8	2.9	5.6	1.8
Noni	2.0	0.6	2.4	0.3	4.6	0.2	1.4	1.9	0.8
Other	3.5	2.1	4.0	5.4	1.6	6.1	2.8	4.2	2.7

5.4.12 Private households owning or raising livestock

The following section provides an overview of the number of livestock counted (Table 49), and the proportion of HHs that raise or own livestock. Livestock, such as chickens (55.0%), pigs (37.5%) and cattle (21.0%), were commonly raised by HHs in Vanuatu, but only a few HHs raised goats (4.8%), horses (2.3%) or ducks (1.3%) and almost none raised sheep or other livestock.

Livestock	Vanuatu	Urban	Rural	Torba	Sanma	Penama	Malampa	Shefa	Tafea
Cattle	21.0	1.2	26.9	22.9	29.0	26.8	31.4	8.0	24.9
Pigs	37.5	5.0	47.3	50.3	29.7	53.4	43.3	19.3	73.2
Goats	4.8	0.4	6.2	0.5	4.4	0.5	2.2	4.0	16.2
Horses	2.3	0.1	3.0	0.0	8.4	0.8	0.4	0.3	2.6
Chickens	55.0	11.3	68.2	62.2	54.0	78.2	70.3	30.0	81.9
Ducks	1.3	0.7	1.5	0.5	1.8	0.9	0.6	1.4	1.7
Sheep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 48. Percentages of HHs raising different categories of livestock, Vanuatu: 2020

5.4.13 Private households and availability of various household items

This section briefly summarises the availability of a variety of HH items and appliances. The different sections include a summary table presenting the total number of items by place of residence. It shows the number of HHs by place of residence with at least one item that is in working order. It excludes any items that were broken, borrowed or rented. The numbers, therefore, are simply divided into two categories: 'yes' if the HH owns the item, or 'no' if it does not own the item.

Table 49. Number of items of HH appliances and means of transportation by place of residence, Vanuatu:2020

ltem	Vanuatu	Urban	Rural	Torba	Sanma	Penama	Malampa	Shefa	Tafea
Refrigerator	8,120	5,280	2,840	40	1,170	105	219	6,363	222
Freezer	6,159	2,942	3,216	87	1,338	281	535	3,647	271
Stove	17,685	9,850	7,835	100	3,168	657	870	12,176	714
Generator	4,977	637	4,340	294	1,305	756	726	1,559	337

ltem	Vanuatu	Urban	Rural	Torba	Sanma	Penama	Malampa	Shefa	Tafea
Solar panel	28,642	2,947	25,695	1,344	7,392	4,198	5,607	7,688	2,413
Air conditioner	622	498	124	2	75	6	14	511	13
CD/DVD player	4,196	1,427	2,769	60	808	230	513	2,246	338
Radio	13,296	4,345	9,581	174	3,257	1,134	1,506	6,976	880
TV	13,145	7,395	5,749	38	1,869	168	676	10,014	380
Car	2,136	1,427	709	4	708	16	17	1,375	16
Van (bus)	1,737	920	817	1	122	10	36	1,520	48
Truck	3,311	1,174	2,137	21	772	282	350	1,570	316
Motorcycle	322	89	233	5	67	32	35	148	34
Boat w/ motor	1,313	156	1,157	55	281	139	219	489	131
Bicycle	7,801	2,145	5,656	250	1,806	382	906	3,904	553
Canoe	4,126	103	4,023	369	944	438	1,235	599	542
Horse	1,371	29	1,341	0	1,081	19	36	74	159
Canoe w/ motor	79	6	72	5	12	2	12	29	17

5.5. Household bed nets

The majority of all HHs in Vanuatu had at least one bed net (51.3%), as shown in Table 51. In total, 120,053 bed nets were counted in the 2020 census, i.e. an average of 1.89 per HH. More HHs in rural areas (58.3%) had bed nets compared to HHs in urban areas (28.1%). There is also a substantial difference between provinces, with a much lower percentage of HHs in Shefa (27.1%) and Tafea (26.2%) having bed nets compared to other provinces. In Port Vila, in particular, only 16.0% of HHs have bed nets.

Table 50. Number of private HHs by place of residence and availability of bed nets, Vanuatu: 2020

Place of residence	HHs	HHs with bed nets	%	Total bed nets	
Vanuatu	63,365	32,493	51.3	120,053	
Urban	14,702	4,129	28.1	14,844	
Rural	48,663	28,364	58.3	105,209	
Torba	2,392	1,891	79.1	7,289	
Sanma	12,890	9,143	70.9	35,820	
Penama	7,863	5,659	72.0	22,806	
Malampa	9,715	7,600	78.2	28,540	
Shefa	22,266	6,039	27.1	19,359	
Tafea	8,239	2,162	26.2	6,238	

6. IMPLICATIONS OF DEMOGRAPHIC TRENDS

6.1. Population dynamics

6.1.1 Growth rate

Vanuatu's annual population growth rate of 2.3% is still one of the highest in the Pacific region, after Solomon Islands. Its population density (24.4 people per km²), on the other hand, is one of the lowest in the region. Only Papua New Guinea, New Caledonia and Niue have lower densities. Historically, Shefa province has been the fastest growing province due to the attraction of the capital, Port Vila. Shefa province has the highest population density (69.0 people per km²) and accounts for 34.6% of the national population.

However, there has been a change in relative growth rates, particularly after TC Pam struck Vanuatu in 2016 and reconstruction was undertaken in the hardest hit parts of the country. Between 2009 and 2020, the highest population growth rate (3.1% per year) was registered in Tafea province, whereas Shefa's growth rate was 2.6% per year. The two provinces that grew most slowly between 1999 and 2009, Penama and Malampa, both continued to maintain slow growth rates of 1.3% per year. Another change is the considerable slowdown in urban growth rates, from 3.5 to 1.4% per year, accompanied by an increase in rural growth rates, from 1.9 to 2.6% per year. This phenomenon is largely due to the fact that the growth of the country's two urban centres, Port Vila and Luganville, has started to spill over into adjacent rural areas.

The National Population Policy 2011–2020 takes a neutral view of population growth:

"Population growth in itself is not a negative factor in development, but a rate of growth above 2% per year can become a negative factor in poorer agricultural economies that already have high population density and few natural resources. Although Vanuatu is not such a country, the decline in the rate of population growth to 2.3% per year is a positive outcome and suggests that conditions in the country are favourable to further declines in growth in the coming years. But planners need to note that the present annual population increment of 4,700 is higher than it has ever been. While the rate of growth has dropped, the population is now much larger, so the annual increase is also larger. Thus, 'demographic demand' for services and employment will continue to increase for quite some time. The tripling of Vanuatu's population since 1967 is not in itself a problem because a larger population brings some economic benefits through increased economies of scale. The main problem for Vanuatu is to ensure that these benefits can be captured by sound development policies."¹⁵

6.1.2 Fertility

Annual population growth is the result of a relatively high natural growth rate that is caused by high fertility (birth) rates. Nevertheless, it should be noted that the CBR has declined from 31.3 to 28.2 per 1,000 between 2009 and 2020. The fact that the annual growth rate has remained relatively constant seems to be due to the apparent reversal of migration trends, from net emigration to net immigration. The average number of children per woman (TFR) has only dropped from about 4.1 to 3.7 children per woman during the 11-year period 2009–2020, and is still one of the highest in the Pacific region. Teenage fertility has declined more rapidly, from 66 to 48.8 per 1,000, but the latter is still relatively high.

Teen pregnancy is a social issue. Children of teenage mothers often have lower educational levels, higher rates of poverty, and other poorer 'life outcomes'. In particular, the analysis carried out in this report suggests that the transition from concluding primary education to concluding secondary education is an important determinant of teenage fertility. In general, teenage pregnancy usually occurs outside of marriage and, for this reason, often carries a social stigma. Social protection for solo parents and young mothers can include provision of child support and maintenance.

¹⁵ Vanuatu, Department of Strategic Policy, Planning and Aid Coordination 2011. National Population Policy 2011–2020.

Despite the considerable reduction in teenage fertility, the overall average age of childbearing in Vanuatu has declined slightly, from 29.3 in 2009 to 28.6 in 2020. This happens because childbearing at older ages has also diminished more than the average decline as a result of lower overall fertility, thereby causing a higher concentration of fertility in the central childbearing ages.

In the statement delivered by Vanuatu at the Sixth Mid-Term Review of the Asian and Pacific Population Conference, 26– 28 November 2018, in Bangkok, the government pointed out that the contraceptive prevalence rate for modern methods is low at 37%. Unmet need for contraceptives remains high at 24.4%. These trends indicate reproductive rights and choices are yet to be fully realised. The government reaffirmed its commitment to the aspirations of the Moana Declaration to 'ensure access to sexual and reproductive health and rights (SRHR) for all our peoples, without discrimination.' In its conclusions, the government stated the following persistent and urgent challenges:

- Expand delivery of integrated reproductive, maternal, newborn, child and adolescent health services to realise reproductive rights and unmet need for contraception, particularly for young people.
- Universal access to reproductive health and expansion of reproductive health rights and choices without discrimination, particularly in relation to young people, the marginalised and vulnerable, persons with disabilities, and populations affected by disasters and emergencies.
- Universal access to voluntary reproductive health services including family planning, as an effective poverty reduction strategy.
- Optimise Vanuatu's demographic dividend through investments in education and skill building to expand human capabilities, and support the readiness of young people for labour market opportunities that arise.

6.1.3 Mortality

Improved mortality rates mean that healthier people live longer lives. Based on census data for the number of children ever born and still alive, the IMR was estimated at 16, i.e. 17 for males and 14 for females. This estimate is lower than in both 2009, when the IMR was 22 for males and 19 for females, and 1999, when the IMR was 27 for males and 26 for females. Under 5 mortality was 18 per 1,000. In this context, it is strange that the Vanuatu Health Strategy 2017 set a goal for an IMR of 29 or less for 2020 as this figure had already been reached in 2009, according to the 2009 census.

Estimates of mortality presented in this report suggest that females live longer than males, living on average about three years longer. Life expectancy at birth is estimated at 71.6 for males and 74.2 for females. This represents an increase on 2009 when it was 69.6 years for males and 72.7 for females, and particularly on 1999 when it was 65.6 and 69.0. The figures in Vanuatu compare with levels of 80.3 and 83.8 years for males and females in New Zealand. In Australia, life expectancy is 81.2 for males and 85.2 for females. Therefore, an average person in New Zealand or Australia lives about nine years longer than a Ni-Vanuatu. On the other hand, life expectancies at birth for Fiji were estimated at 65.6 for males and 69.1 for females in 2015–2019, which is considerably less than in Vanuatu.

While the CBR has fallen from 31.3 per 1,000 in 2009 to 28.2 per thousand in 2020, the CDR has decreased from 5.4 to 5.0 per 1,000. Subtracting the CDR from the CBR one obtains the natural growth rate, i.e. the growth that would occur in the absence of migration. This rate decreased from 2.59% in 2009 to 2.32% in 2020.

The National Population Policy 2011–2020 considered that overall mortality trends in Vanuatu were positive for development:

"Infant and child mortality rates have been trending downwards over the past decade and are on track to achieve the MDG targets for 2015. These trends suggest that health programmes have been effective and socio-economic development is taking place. The one qualification to this conclusion is the apparent increase in infant and child mortality in the urban sector and in two provinces (Penama and Tafea). These increases require more detailed investigation. It is also important that efforts be strengthened to further reduce under 5 mortality. The ICPD target of a life expectancy

level of 70 years in 2005 has been achieved and it is possible that the 2015 target of over 75 years by 2015 could also be achieved. These mortality trends are positive in themselves but they also suggest that further reductions in fertility could be possible given that fertility reduction is usually dependent on mortality reduction."¹⁶

6.1.4 Internal migration

Although Shefa is no longer the fastest growing province, having been overtaken by Tafea, it still had the highest internal migration balance for 2015–2020, with a net in-migration of 1,880 persons. This was considerably less than the 5,821 found in 2009. Tafea's net migration balance continued to be slightly negative. The only other province with a (slightly) positive migration (228) was Sanma. Some rural areas and islands show a very low population increase despite high natural growth or sometimes even negative population growth rates (i.e. a population decline) during the intercensal period.

The National Population Policy 2011–2020 addressed the issue of internal migration primarily in terms of its rural-to-urban component:

"In Vanuatu, as in most Pacific countries, urbanisation has been accompanied by social problems and poor environmental conditions. But this results mainly from poor urban planning and negative attitudes toward urban living. Urbanisation needs to be placed on the national agenda and the draft national urbanisation policy should be further developed and completed. Further national consultations will be necessary if the urban management issues in Port Vila and Luganville are to be effectively addressed. While higher rural incomes may slow rural–urban movement, they will not stop it."¹⁷

The policy proposed the following measures to regulate the process:

- Review and implement the land use planning policy.
- Complete and implement a national urbanisation policy.
- Implement government's decentralisation policy.
- Rural Training Centres should be more demand driven and focus on employment creation in rural areas (not just training).
- Develop a national employment policy to provide coordinated direction in addressing employment issues.
- Develop a National Employment Service Centre to assist the unemployed.
- RSE/PSWPS recruitment only from rural areas.

6.1.5 International migration

Data on arrivals and departures remain incomplete for detailed migration analysis.

The net migration level can only be crudely estimated by comparing intercensal population growth with estimated rates of natural increase for the same time period, as was done in section 3.4.2.

While this method provides a reasonably robust indication of net migration, planners and policy-makers require more detailed and timely information on the demographic make-up of opposing migration streams in order to make and implement realistic policy decisions. While the number of immigrants can usually be assessed through the census (2,936 foreign-born, according to the 2020 census), emigration is much harder to measure. One method for this is to look at the censuses of countries of destination. Thus, in 2011 there were 1,107 persons born in Vanuatu residing in Australia. In 2006, the New Zealand census found 315 persons born in Vanuatu. However, the process is laborious and the data usually have considerable time lags.

As the national average annual population growth rates are similar to the estimated natural growth, it can be concluded that net migration rates are negligible, and no significant international migration had occurred during the intercensal period 2009–2020.

¹⁶ Vanuatu, Department of Strategic Policy, Planning and Aid Coordination 2011. National Population Policy 2011–2020. ¹⁷ Ibid.

6.2. Cross-cutting issues

Despite some decline in fertility, population growth continues almost unabated. Vanuatu will most likely experience continued population growth during the next few years. Appropriate health, education and social welfare programmes must be in place to fulfil the needs and aspirations of Vanuatu's communities.

6.2.1 Vital statistics

A well-functioning registration system, able to supply accurate and timely statistics on population developments, is of fundamental importance to planners and policy-makers. To make reliable estimates of fertility and mortality indicator levels and trends, a complete registration system needs to be in place; that is, one that records the number of deaths by age and sex, and cause of death, and the number of births by sex and by age of mother, and mother's usual place of residence. Improved coordination between all agencies involved is required. By tracking all immigrants and exiting people, policy-makers will have an accurate and current picture of Vanuatu's total population size and structure. This objective is still far from being achieved. According to estimates published by the World Bank, the completeness of birth registration in 2013 was only 61% in urban areas and 37% in rural areas. Death registration was even less complete.

6.2.2 The environment

The size and density of the population has a direct impact on water and energy consumption, sewage and waste production, general infrastructure such as roads, the use of land, and the development of agriculture and marine resources. There is higher demand on environmental health services, such as public garbage collection, and most importantly, sewage systems. In addition, water sources need to be protected.

The National Sustainable Development Plan 2016–2030 specifies the following policy objectives for the environmental area:

- Increase access to knowledge, expertise and technology to enact our blue-green growth strategies.
- Ensure new infrastructure and development activities cause minimal disturbance to the natural land and marine environment.
- Promote renewable sources of energy and promote efficient energy use.
- Reduce waste and pollution through effective waste management and pollution control.
- Strengthen post-disaster systems in planning, preparedness, response and recovery.
- Promote and ensure strengthened resilience and adaptive capacity to climate related, natural and man-made hazards.
- Access available financing for climate change adaptation and disaster risk management.
- Strengthen local authorities and municipal planning authorities to enact and enforce land use planning laws and regulations.
- Protect vulnerable forests, watersheds, catchments and freshwater resources, including community water sources.
- Prevent land degradation and downstream environmental damage from mineral resource extraction.
- Promote the sustainable development of the fisheries sector that values the protection and conservation of marine and freshwater resources.
- Reduce and prevent the degradation and erosion of foreshore and coastal areas.
- Reduce deforestation and ensure rehabilitation and reforestation are commonplace.
- Build capacity and support local communities to manage natural resources.

- Protect biodiversity and ecosystems and their significant role in our culture, society and environment.
- Create and manage conservation and protected areas.
- Support local conservation and protection of endangered, threatened or endemic species and ecosystems including through traditional knowledge and practices.
- Increase awareness of biodiversity conservation and environmental protection issues across government and publicly.
- Enhance environmental monitoring, evaluation and research with relevant, open and transparent data sharing among relevant agencies.

6.2.3 Households

Population growth not only contributes to increased demand for water and energy supply, waste disposal, sewage connections and general infrastructure, but also to an increase in the number of HHs due to changes in average HH size. Even if the population size remained stable, the number of HHs would still increase when HHs and/or family structures break up into smaller units, often described as the transition from extended family-type HHs to nuclear family-type living arrangements.

Households and families that are economically incapable of sustaining an acceptable and healthy lifestyle might need extra assistance from the government, since unhealthy living environments affect everyone in the long term. In particular, access to clean water, public electricity, an adequate public sewage system and waste disposal facilities should all be the minimum housing standard for Vanuatu's population. Specific areas of assistance include the following:

- Dwellings: 33% of dwellings in rural areas are more than 10 years old and are prone to natural disaster. The proportion of dwellings older than 10 years is even higher, but the quality of construction is generally better. As demonstrated by TC Pam in 2015, the government needs to improve housing in rural areas, using local materials that are affordable and cyclone proof.
- The percentage of HHs that use a river, lake, or spring as a source of water has declined, but it is still 6% nationally and 14% in Tafea province.
- One of the biggest changes since 2009 is that kerosene lighting and heating has almost disappeared from HHs in Vanuatu. In 2009, the percentage of HHs that used kerosene for lighting was still 48 %. In part, this has happened because, with continued rising prices, kerosene is no longer an affordable energy source for the home, community, school or business.
- Nationally, 36% of HHs still use pit latrines, but in Penama this is almost 60% and in Tafea 54%. While there is progress compared to 2009, further health awareness programmes, and assistance for the introduction and improvement of toilet facilities are needed.

6.2.4 Health services and well-being

The health status of each individual and their family members is probably one of the most important concerns for people. Therefore, the availability, use and affordability of quality health care and medical services are major issues of concern. In Vanuatu's remote areas and outer islands, small population size and isolation inhibit the operation of state-of-the-art health services that require the employment of specialist personnel and the purchase and maintenance of specialised equipment. It is important that resident medical staff are sufficiently qualified to provide basic health care. An efficient referral service to the nearest health facility, together with regular visits by medical specialists, are also needed to ensure that people's health needs are met.

The Health Sector Strategy 2017–2020 set the following goals for the country:

- API rate for all cases of malaria is no more than 1 per thousand population nationally.
- Incidence of TB in Vanuatu reduced by 20% compared to 2015.
- Diabetic related lower-limb amputations are <23 total cases (excl. digits).
- Maternal mortality ratio reduced to less than 80 per 100,000 live births (moving average).
- 95% deliveries attended by a skilled birth attendant.

- Neonatal mortality rate is no higher than 10 per thousand live births.
- Number of children under 5 who are stunted is <23.5%.
- 95% of children aged between 12 and 23 months have received three doses of combined diphtheria, tetanus toxoid and pertussis vaccine in a given year, administered by a trained health professional.
- The prevalence of obesity amongst the adult population is <32.9%.
- Prevalence of high blood pressure in adult population is <24%.
- Maintain current percentage of infants (0–5 years) exclusively breast fed.
- Vanuatu has a density of 24 health workers (doctors, nurses and midwives) to 10,000 population.¹⁸

6.2.5 Disabilities

Vanuatu is a signatory to the 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."

Overall, about 14.7% of the total population over age 5 reported a disability, regardless of severity. The percentage was slightly higher (15.2%) for females than for males (14.2%). Most of these disabilities were minor. Only 1.7% of the population over age 5 reported a major disability (major difficulty or total inability to perform a function).

A 2020 study by MoET on barriers to education noted that the education system in Vanuatu was not inclusive of children and youth with a disability. Factors such as poor roads, inaccessible classrooms and toilets, lack of assistance tools such as sign language, braille or hearing aids, a curriculum that does not cater for a range of learning needs, and lack of inclusion training for teachers and teacher support were cited as some of the specific barriers for children with a disability wanting to attend school. It was also noted that there was still discrimination in communities against disability, and that some parents felt shame or stigma when including their child in community activities, such as education.

6.2.6 Education

Educational level is a key indicator of development and quality of life in a country. Education plays an important role in development through its links with demographic, economic and social factors. In general, there is a close and complex relationship between education, fertility, morbidity, mortality and mobility: when couples are better educated, they tend to have fewer children, their children's health status improves, and their survival rates tend to increase. Higher levels of educational attainment also contribute to a better qualified workforce, higher wages, and better economic performance.

Enrolment rates for 6–13 year-olds were fairly stable between 2009 and 2020, although some improvement was observed in Shefa province where enrolment went up from 88.5 to 90.1%, and in Tafea province, where it increased from 75.8% to 76.7%. On the other hand, there have been declines in enrolment in Torba, Penama and Malampa that require an explanation. Another curious finding was that the percentage of the population without any schooling went up from 16 to 21.7%. However, as explained earlier, this increase is probably a consequence of the change in the format of the question in 2020 compared to 2009. Meanwhile, the percentage of the population 15+ years with at least secondary education did not markedly change, although the literacy rate did, from 84.8% to 92.2%.

The Vanuatu Barriers to Education study (2018) cited earlier made the following recommendations to improve the quality of education in the country:

1. Improve parental and child perceptions of the relevance of education to future goals, and to future income. There has to be more awareness at the community level on the practical contribution of

¹⁸ Government of the Republic of Vanuatu, Ministry of Health 2021. Health Sector Strategy (HSS) 2017-2020. Available at: <u>https://moh.gov.vu/images/Strategic_Plan/HSS_2017_-2020-_Final.pdf</u>

education to future life activities and on parents' responsibilities as these are not limited to paying school fees, but require active support and interest from parents. More resourcing is needed for vocational education pathways and awareness needs to be raised on the links between knowledge and local industry skills, e.g. management of farms and agricultural operations, budgeting, documentation and decision-making.

- 9. Reduce access issues resulting from geographical factors. One way to resolve this barrier would be to construct more boarding schools.
- 10. Improve access and quality of education for children with a disability. More training should be given to teachers on inclusion, and special needs teachers should be trained to provide support in schools. The curriculum should be made more inclusive.
- 11. Reduce disaster impact on access to education through improved Education in Emergency planning and coordination. A 2009 assessment by UNICEF indicated that Core Commitments for Children indicators such as child separation, child protection or temporary classrooms were not adequately considered in emergency management plans. However, in the past four years, Vanuatu has reinforced emergency management systems, including through development of the 'Education Cluster' for appropriate emergency management of education.
- 12. Continue with gender equity initiatives in education, as they are having a positive impact in moving Vanuatu's education system to a gender equal environment. Equity in education activities to improve access to schooling is having a demonstrated impact on perceptions of the value of education for girls.
- 13. Raise awareness of the impacts of child labour on education. It would be beneficial to raise parental and community awareness on the need to restrict children's HH and agricultural work outside of school to increase their attendance and performance, with a focus on the long-term benefits of education.¹⁹

6.2.7 Economic activity and labour market

Economic activity and employment are shaped by the size of the working age population, the educational skill level of the labour force, and the economic resources available to a country.

One of the puzzling findings of the 2020 census was that apparently labour force participation declined significantly, from 70.9% in 2009 to 46.7% in 2020. This is likely to be a consequence of the timing of the census as many workers may have temporarily withdrawn from the labour force as a consequence of COVID, even though COVID had not been officially diagnosed in the country at the time of the census. In particular, this may have affected subsistence workers, whose numbers dropped sharply, from 41,877 in 2009 to 16,317 in 2020. The number of employees (government or private sector), however, was 29,976, compared to 25,006 in 2009.

As noted above, Vanuatu enjoys the benefits of migrant labour agreements with New Zealand and Australia. The most popular programme was New Zealand's RSE programme, which began with a pilot in 2007. Australia piloted a similar scheme in 2009. The workers are mostly unskilled and are mainly involved in agricultural work.

In order to create jobs and improve the business environment, the National Sustainable Development Plan 2016–2030 defined the following strategies:

- Improve the business environment with a stable regulatory framework, to promote competition, protect consumers, attract investment, and reduce the cost of doing business.
- Strengthen linkages between urban and rural business and promote trade between islands.
- Increase production and processing of niche commodities, and value addition to commodities in which Vanuatu enjoys a comparative advantage.

¹⁹ Vanuatu Development Service 2018. Vanuatu Barriers to Education Study. Available at: <u>https://education.gov.vu/docs/</u>policies/20181114%20EN%20Barriers%20to%20Education_2020.pdf

- Improve and expand the range of sustainable tourism products and services throughout Vanuatu and strengthen links to local production.
- Increase the number of decent, productive employment opportunities, particularly for young women and men and people with disabilities.
- Ensure the health and safety, employment rights and skill development of the workforce.
- Increase labour mobility nationally and internationally, including through the collection and analysis of comprehensive labour market data.
- Ensure processes for acquiring and using land for economic activity provide a stable platform for investment and business growth.
- Strengthen dialogue between government and the private sector, and enact a robust governance framework for effective partnerships.²⁰

²⁰ Government of the Republic of Vanuatu, Department of Strategic Policy, Planning and Aid Coordination 2016. Vanuatu 2020 The People's Plan: National Sustainable Development Plan 2016–2030. Available at: <u>https://www.gov.vu/images/</u>publications/Vanuatu2030-EN-FINAL-sf.pdf



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