

Appendix Tables

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Appendix Table A1.2.1 Cultivated land area^(a) by PNGRIS land use intensity class and province, 1975 (km²)

Province	PNGRIS land use intensity class										Total area of cultivated land		
	Extremely low and very low	%	Low	%	Moderate	%	High	%	Very high	%	Very high with tree crops	%	Total area of cultivated land
Western	5,174	65.2	2,271	28.6	438	5.5	0	0.0	0	0.0	48	0.6	7,931
Gulf	2,919	76.8	546	14.4	321	8.4	0	0.0	0	0.0	15	0.4	3,801
Central	1,534	23.9	3,288	51.3	1,317	20.6	1	0.0	0	0.0	267	4.2	6,407
Milne Bay	1,711	30.1	3,408	59.9	405	7.1	92	1.6	0	0.0	75	1.3	5,691
Oro	2,219	52.1	1,044	24.5	742	17.4	149	3.5	0	0.0	104	2.4	4,258
Southern Highlands	983	13.8	2,419	34.0	2,002	28.1	1,576	22.2	132	1.9	0	0.0	7,112
Enga	469	12.5	318	8.5	1,419	37.9	1,257	33.5	286	7.6	0	0.0	3,749
Western Highlands	347	7.7	1,320	29.5	918	20.5	1,612	36.0	123	2.7	162	3.6	4,482
Simbu	286	11.4	503	20.0	479	19.0	175	7.0	1,072	42.6	0	0.0	2,515
Eastern Highlands	1,229	22.2	1,087	19.6	2,587	46.7	619	11.2	0	0.0	17	0.3	5,539
Morobe	5,938	48.5	4,757	38.8	1,236	10.1	132	1.1	0	0.0	182	1.5	12,245
Madang	9,870	61.5	4,762	29.7	1,007	6.3	148	0.9	0	0.0	259	1.6	16,046
East Sepik	6,122	68.1	1,697	18.9	667	7.4	370	4.1	98	1.1	38	0.4	8,992
Sandaun	5,181	63.1	2,330	28.4	596	7.3	83	1.0	0	0.0	21	0.3	8,211
Manus	1,544	88.4	136	7.8	27	1.5	0	0.0	0	0.0	40	2.3	1,747
New Ireland	3,100	68.4	992	21.9	25	0.6	0	0.0	0	0.0	414	9.1	4,531
East New Britain	1,625	43.1	1,093	29.0	321	8.5	0	0.0	0	0.0	733	19.4	3,772
West New Britain	4,747	83.6	522	9.2	45	0.8	23	0.4	0	0.0	339	6.0	5,676
Bougainville	2,625	50.9	1,622	31.5	739	14.3	0	0.0	0	0.0	167	3.2	5,153
Papua New Guinea	57,623	48.9	34,115	28.9	15,291	13.0	6,237	5.3	1,711	1.5	2,881	2.4	117,858

^t Everywhere else in this book we use the term 'land used for agriculture' to refer to the CSIRO class 'cultivated land'. Source: PNGRIS.

Appendix Table A1.2.2 Cultivated land area by MASP land use intensity class and province, 1995 (km²)

Province	Land use intensity class (R-value)										Total area of cultivated land	
	Very low	%	Low	%	Medium	%	High	%	Very high	%	Total area of cultivated land	%
Western	19,320	91.1	0	0.0	1,886	8.9	0	0.0	0	0.0	21,206	0.0
Gulf	9,070	99.2	70	0.8	0	0.0	0	0.0	0	0.0	9,140	0.0
Central	1,334	28.6	2,338	50.1	953	20.4	46	1.0	0	0.0	4,670	0.0
Milne Bay	3,438	77.2	995	22.3	19	0.4	0	0.0	0	0.0	4,452	0.0
Oro	1,848	60.4	1,213	39.6	0	0.0	0	0.0	0	0.0	3,061	0.0
Southern Highlands	1,577	32.0	1,035	21.0	1,755	35.7	264	5.4	290	5.9	4,921	5.9
Enga	1,085	43.8	307	12.4	154	6.2	0	0.0	931	37.6	2,477	37.6
Western Highlands	988	33.4	1,043	35.3	792	26.8	0	0.0	134	4.5	2,958	4.5
Simbu	640	36.7	690	39.6	412	23.7	0	0.0	0	0.0	1,742	0.0
Eastern Highlands	1,353	34.3	1,453	36.9	906	23.0	188	4.8	42	1.1	3,942	1.1
Morobe	3,302	41.7	3,115	39.4	1,496	18.9	0	0.0	2	0.0	7,915	0.0
Madang	8,583	78.1	2,264	20.6	137	1.2	0	0.0	0	0.0	10,984	0.0
East Sepik	11,608	70.2	4,887	29.6	34	0.2	0	0.0	0	0.0	16,529	0.0
Sandaun	10,195	100.0	0	0.0	0	0.0	0	0.0	0	0.0	10,195	0.0
Manus	1,128	95.2	54	4.6	3	0.2	0	0.0	0	0.0	1,185	0.0
New Ireland	2,022	71.4	798	28.2	13	0.5	0	0.0	0	0.0	2,833	0.0
East New Britain	1,632	71.1	239	10.4	0	0.0	424	18.5	0	0.0	2,295	0.0
West New Britain	3,463	87.9	417	10.6	60	1.5	0	0.0	0	0.0	3,940	0.0
Bougainville	585	17.1	2,814	82.4	4	0.1	0	0.0	11	0.3	3,414	0.3
Papua New Guinea	83,171	70.6	23,732	20.1	8,623	7.3	922	0.8	1,409	1.2	117,858	1.2

Source: MASP.

Appendix Table A1.2.3 Number of rural people living on cultivated land by MASP land use intensity class and province

Province	Land use intensity class (R-value)										Total rural population	
	Very low	%	Low	%	Medium	%	High	%	Very high	%	Total population	%
Western	95,067	88.2	0	0.0	12,770	11.8	0	0.0	0	0.0	107,837	0.0
Gulf	88,606	96.0	3,659	4.0	0	0.0	0	0.0	0	0.0	92,265	0.0
Central	27,625	17.6	83,860	53.4	45,573	29.0	0	0.0	0	0.0	157,058	0.0
Milne Bay	119,435	63.4	66,094	35.1	2,805	1.5	0	0.0	0	0.0	188,334	0.0
Oro	40,910	38.5	65,378	61.5	0	0.0	0	0.0	0	0.0	106,288	0.0
Southern Highlands	83,256	15.8	99,989	19.0	216,433	41.1	60,427	11.5	66,294	12.6	526,398	12.6
Enga	49,993	17.6	28,145	9.9	15,314	5.4	0	0.0	190,045	67.0	283,498	67.0
Western Highlands	47,700	12.9	121,744	32.8	178,943	48.2	0	0.0	22,627	6.1	371,014	6.1
Simbu	30,169	12.4	126,442	52.1	86,137	35.5	0	0.0	0	0.0	242,748	0.0
Eastern Highlands	81,044	20.6	148,142	37.7	109,194	27.8	39,117	9.9	15,922	4.0	393,418	4.0
Morobe	110,958	31.2	181,108	50.9	63,044	17.7	0	0.0	989	0.3	356,100	0.3
Madang	204,241	66.3	89,530	29.1	14,364	4.7	0	0.0	0	0.0	308,135	0.0
East Sepik	214,329	70.6	75,824	25.0	13,553	4.5	0	0.0	0	0.0	303,706	0.0
Sandaun	166,919	100.0	0	0.0	0	0.0	0	0.0	0	0.0	166,919	0.0
Manus	28,653	82.1	5,237	15.0	1,009	2.9	0	0.0	0	0.0	34,899	0.0
New Ireland	66,412	64.3	33,445	32.4	3,402	3.3	0	0.0	0	0.0	103,259	0.0
East New Britain	56,314	32.3	2,434	1.4	0	0.0	115,482	66.3	0	0.0	174,230	0.0
West New Britain	67,051	61.3	28,216	25.8	14,032	12.8	0	0.0	0	0.0	109,299	0.0
Bougainville	28,488	17.0	133,425	79.8	2,461	1.5	0	0.0	2,782	1.7	167,156	1.7
Papua New Guinea	1,607,170	38.3	1,292,672	30.8	779,034	18.6	215,025	5.1	298,660	7.1	4,192,561	7.1

Sources: NSO (2002); MASP.

Appendix Table A1.2.4 Cultivated land area by population density class and province, 1995 (km²)

Province	Population density class (persons/km ²)						Total area of cultivated land				
	Very low <10	%	Low 10–30	%	Medium 31–50	%	High 51–100	%	Very high >100	%	
Western	20,974	98.9	232	1.1	0	0.0	0	0.0	0	0.0	21,206
Gulf	8,866	97.0	235	2.6	36	0.4	0	0.0	3	0.0	9,140
Central	1,730	37.0	2,808	60.1	60	1.3	61	1.3	12	0.2	4,670
Milne Bay	1,299	29.2	2,640	59.3	161	3.6	349	7.8	4	0.1	4,452
Oro	1,034	33.8	2,027	66.2	0	0.0	0	0.0	0	0.0	3,061
Southern Highlands	592	12.0	2,262	46.0	1,617	32.9	450	9.1	0	0.0	4,921
Enga	116	4.7	960	38.8	876	35.4	308	12.4	217	8.7	2,477
Western Highlands	267	9.0	1,045	35.3	20	0.7	1,282	43.3	344	11.6	2,958
Simbu	91	5.2	474	27.2	35	2.0	569	32.6	573	32.9	1,742
Eastern Highlands	504	12.8	942	23.9	778	19.7	1,571	39.9	147	3.7	3,942
Morobe	1,504	19.0	5,276	66.7	828	10.5	305	3.8	2	0.0	7,915
Madang	7,181	65.4	3,277	29.8	238	2.2	287	2.6	2	0.0	10,984
East Sepik	14,140	85.5	1,075	6.5	693	4.2	565	3.4	56	0.3	16,529
Sandaun	7,641	74.9	2,411	23.6	79	0.8	64	0.6	0	0.0	10,195
Manus	675	57.0	466	39.3	24	2.1	11	0.9	9	0.7	1,185
New Ireland	1,052	37.1	1,736	61.3	0	0.0	34	1.2	11	0.4	2,833
East New Britain	711	31.0	915	39.9	130	5.7	494	21.5	45	2.0	2,295
West New Britain	2,504	63.5	1,172	29.8	22	0.6	192	4.9	49	1.3	3,940
Bougainville	575	16.8	2,799	82.0	0	0.0	37	1.1	4	0.1	3,414
Papua New Guinea	71,060	60.3	32,975	28.0	5,625	4.8	6,648	5.6	1,550	1.3	117,858

Note: The data in the MASP database was mainly recorded in 1990–1995. The population figures used to generate population densities are derived from the 2000 census.

Sources: NSO (2002); MASP.

Appendix Table A1.3.1 Total land area by population density class and province (km²)

Province	Population density class (persons/km ²)							Total land area					
	No population	%	Very low <10	%	Low 10-30	%	Medium 31-50	%	High 51-100	%	Very high >100	%	
Western	69,423	71.5	27,340	28.2	303	0.3	0	0.0	0	0.0	0	0.0	97,065
Gulf	21,773	64.3	11,712	34.6	310	0.9	47	0.1	0	0.0	4	0.0	33,847
Central	23,962	80.0	2,220	7.4	3,603	12.0	76	0.3	78	0.3	15	0.0	29,954
Milne Bay	8,174	57.9	1,616	11.4	3,696	26.2	200	1.4	434	3.1	5	0.0	14,125
Oro	18,603	82.6	1,319	5.9	2,588	11.5	0	0.0	0	0.0	0	0.0	22,510
Southern Highlands	19,327	75.2	764	3.0	2,941	11.4	2,086	8.1	580	2.3	0	0.0	25,698
Enga	8,617	72.8	151	1.3	1,249	10.6	1,139	9.6	401	3.4	282	2.4	11,839
Western Highlands	4,925	55.4	358	4.0	1,403	15.8	27	0.3	1,721	19.3	462	5.2	8,897
Simbu	3,710	61.6	121	2.0	629	10.4	46	0.8	755	12.5	761	12.6	6,022
Eastern Highlands	5,676	51.6	681	6.2	1,274	11.6	1,052	9.6	2,125	19.3	199	1.8	11,006
Morobe	23,160	69.1	1,777	5.3	7,247	21.6	979	2.9	360	1.1	3	0.0	33,525
Madang	13,800	48.0	7,764	27.0	6,599	23.0	257	0.9	310	1.1	2	0.0	28,732
East Sepik	21,252	48.6	15,317	35.0	5,728	13.1	751	1.7	612	1.4	61	0.1	43,720
Sandaun	22,495	62.5	10,129	28.1	3,196	8.9	105	0.3	85	0.2	0	0.0	36,010
Manus	402	19.2	967	46.1	666	31.8	35	1.7	15	0.7	13	0.6	2,098
New Ireland	7,253	75.4	1,501	15.6	703	7.3	13	0.1	115	1.2	30	0.3	9,615
East New Britain	12,168	80.5	712	4.7	1,558	10.3	130	0.9	495	3.3	45	0.3	15,109
West New Britain	12,622	60.8	3,020	14.6	4,982	24.0	0	0.0	97	0.5	31	0.1	20,753
Bougainville	4,703	50.4	779	8.3	3,792	40.6	0	0.0	50	0.5	6	0.1	9,329
Papua New Guinea	302,046	65.7	88,248	19.2	52,467	11.4	6,944	1.5	8,234	1.8	1,916	0.4	459,854

Note: The difference between the total land area and the area with no population is 157 808 km². This is greater than the 117 858 km² of land used for agriculture' (see Section 1.2) because areas in which sago is the staple crop are excluded from the 'land used for agriculture' as sago is not cultivated in gardens.

Sources: McAlpine and Quigley (c. 1995); NSO (2002); MASP.

Appendix Table A1.3.2 Rural population by population density class and province

Province	Population density class (persons/km ²)										Total rural population	
	Very low <10	%	Low 10-30	%	Medium 31-50	%	High 51-100	%	Very high >100	%	Total rural population	%
Western	94,951	88.1	0	0.0	12,886	11.9	0	0.0	0	0.0	107,837	0.0
Gulf	87,557	94.9	4,708	5.1	0	0.0	0	0.0	0	0.0	92,265	0.0
Central	27,677	17.6	83,841	53.4	45,540	29.0	0	0.0	0	0.0	157,058	0.0
Milne Bay	118,505	62.9	67,012	35.6	2,817	1.5	0	0.0	0	0.0	188,334	0.0
Oro	40,855	38.4	65,433	61.6	0	0.0	0	0.0	0	0.0	106,288	0.0
Southern Highlands	83,153	15.8	99,842	19.0	216,212	41.1	93,207	17.7	33,983	6.5	526,398	6.5
Enga	49,766	17.6	28,181	9.9	15,293	5.4	103,098	36.4	87,160	30.7	283,498	30.7
Western Highlands	47,660	12.8	121,782	32.8	178,900	48.2	0	0.0	22,672	6.1	371,014	6.1
Simbu	30,296	12.5	126,289	52.0	86,163	35.5	0	0.0	0	0.0	242,748	0.0
Eastern Highlands	81,324	20.7	147,984	37.6	108,862	27.7	39,255	10.0	15,993	4.1	393,418	4.1
Morobe	94,448	26.5	198,750	55.8	61,909	17.4	0	0.0	994	0.3	356,100	0.3
Madang	194,362	63.1	94,608	30.7	19,166	6.2	0	0.0	0	0.0	308,135	0.0
East Sepik	210,432	69.3	79,422	26.2	13,851	4.6	0	0.0	0	0.0	303,706	0.0
Sandaun	166,919	100.0	0	0.0	0	0.0	0	0.0	0	0.0	166,919	0.0
Manus	28,693	82.2	5,198	14.9	1,008	2.9	0	0.0	0	0.0	34,899	0.0
New Ireland	66,420	64.3	33,498	32.4	3,341	3.2	0	0.0	0	0.0	103,259	0.0
East New Britain	56,476	32.4	2,347	1.3	0	0.0	115,407	66.2	0	0.0	174,230	0.0
West New Britain	67,041	61.3	28,188	25.8	14,069	12.9	0	0.0	0	0.0	109,299	0.0
Bougainville	28,444	17.0	133,507	79.9	2,445	1.5	0	0.0	2,761	1.7	167,156	1.7
Papua New Guinea	1,606,774	38.3	1,336,765	31.9	766,724	18.3	333,793	8.0	148,504	3.5	4,192,561	3.5

Sources: NSO (2002); MASP.

Appendix Table A1.9.1 Distribution of USDA Soil Taxonomy soil orders by land area and province (km²)

Province	Entisols	%	Histosols	%	Inceptisols and Andisols	%	Vertisols	%	Mollisols	%	Alfisols	%	Ultisols	%	Oxisols	%	Lakes	%	Total land area
Western	26,344	27.1	0	0.0	13,310	13.7	0	0.0	1,631	1.7	0	0.0	55,001	56.7	0	0.0	779	0.8	97,065
Gulf	12,244	36.2	616	1.8	14,234	42.1	0	0.0	5,534	16.4	135	0.4	1,084	3.2	0	0.0	0	0.0	33,847
Central	9,668	32.3	22	0.1	19,177	64.0	22	0.1	181	0.6	838	2.8	10	0.0	0	0.0	36	0.1	29,954
Milne Bay	2,170	15.4	33	0.2	9,503	67.3	0	0.0	1,692	12.0	630	4.5	26	0.2	71	0.5	0	0.0	14,125
Oro	6,104	27.1	1,213	5.4	13,673	60.7	0	0.0	1,346	6.0	135	0.6	39	0.2	0	0.0	0	0.0	22,510
Southern Highlands	5,265	20.5	297	1.2	14,021	54.6	0	0.0	6,057	23.6	0	0.0	0	0.0	0	0.0	58	0.2	25,698
Enga	2,578	21.8	1,705	14.4	6,683	56.4	0	0.0	873	7.4	0	0.0	0	0.0	0	0.0	0	0.0	11,839
Western Highlands	288	3.2	634	7.1	7,621	85.7	0	0.0	39	0.4	315	3.5	0	0.0	0	0.0	0	0.0	8,897
Simbu	50	0.8	376	6.2	5,052	83.9	0	0.0	544	9.0	0	0.0	0	0.0	0	0.0	0	0.0	6,022
Eastern Highlands	650	5.9	78	0.7	9,191	83.5	0	0.0	164	1.5	697	6.3	226	2.1	0	0.0	0	0.0	11,006
Morobe	11,586	34.6	0	0.0	18,276	54.5	0	0.0	3,316	9.9	333	1.0	0	0.0	0	0.0	14	0.0	33,525
Madang	7,659	26.7	0	0.0	16,290	56.7	80	0.3	2,366	8.2	1,932	6.7	334	1.2	0	0.0	71	0.2	28,732
East Sepik	19,072	43.6	2,891	6.6	13,122	30.0	153	0.3	703	1.6	3,991	9.1	3,584	8.2	0	0.0	204	0.5	43,720
Sandaun	9,724	27.0	14	0.0	21,604	60.0	0	0.0	2,116	5.9	343	1.0	2,209	6.1	0	0.0	0	0.0	36,010
Manus	311	14.8	0	0.0	1,589	75.7	0	0.0	174	8.3	0	0.0	24	1.1	0	0.0	0	0.0	2,098
New Ireland	513	5.3	0	0.0	4,464	46.4	0	0.0	1,931	20.1	2,707	28.2	0	0.0	0	0.0	0	0.0	9,615
East New Britain	1,236	8.2	0	0.0	8,191	54.2	0	0.0	5,295	35.0	387	2.6	0	0.0	0	0.0	0	0.0	15,109
West New Britain	3,367	16.2	0	0.0	17,035	82.1	0	0.0	230	1.1	64	0.3	0	0.0	0	0.0	57	0.3	20,753
Bougainville	1,728	18.5	696	7.5	5,869	62.9	0	0.0	173	1.9	863	9.3	0	0.0	0	0.0	0	0.0	9,329
Papua New Guinea	120,557	26.2	8,575	1.9	218,905	47.6	255	0.1	34,365	7.5	13,370	2.9	62,537	13.6	71	0.0	1,219	0.3	459,854

Source: PNGRIS.

Appendix Table A1.9.2 Distribution of USDA Soil Taxonomy soil orders by rural population and province

Province	Entisols	%	Histosols	%	Inceptisols and Andisols	%	Vertisols	%	Mollisols	%	Alfisols	%	Ultisols	%	Oxisols	%	Total rural population
Western	45,681	42.4	0	0.0	26,914	25.0	0	0.0	709	0.7	0	0.0	34,532	32.0	0	0.0	107,837
Gulf	48,128	52.2	2,360	2.6	29,768	32.3	0	0.0	11,647	12.6	226	0.2	136	0.1	0	0.0	92,265
Central	123,455	78.6	0	0.0	30,007	19.1	727	0.5	1,965	1.3	905	0.6	0	0.0	0	0.0	157,058
Milne Bay	36,397	19.3	484	0.3	96,352	51.2	0	0.0	44,667	23.7	9,488	5.0	0	0.0	947	0.5	188,334
Oro	41,947	39.5	1,526	1.4	56,996	53.6	0	0.0	5,773	5.4	46	0.0	0	0.0	0	0.0	106,288
Southern Highlands	91,234	17.3	20,750	3.9	386,061	73.3	0	0.0	28,354	5.4	0	0.0	0	0.0	0	0.0	526,398
Enga	27,874	9.8	9,393	3.3	237,827	83.9	0	0.0	8,404	3.0	0	0.0	0	0.0	0	0.0	283,498
Western Highlands	4,767	1.3	0	0.0	316,987	85.4	0	0.0	0	0.0	49,260	13.3	0	0.0	0	0.0	371,014
Simbu	0	0.0	387	0.2	236,718	97.5	0	0.0	5,643	2.3	0	0.0	0	0.0	0	0.0	242,748
Eastern Highlands	25,344	6.4	0	0.0	259,279	65.9	0	0.0	188	0.0	42,141	10.7	66,466	16.9	0	0.0	393,418
Morobe	163,405	45.9	0	0.0	128,601	36.1	0	0.0	50,348	14.1	13,745	3.9	0	0.0	0	0.0	356,100
Madang	92,304	30.0	0	0.0	168,824	54.8	3,167	1.0	32,704	10.6	10,920	3.5	215	0.1	0	0.0	308,135
East Sepik	73,181	24.1	23,668	7.8	35,418	11.7	0	0.0	49,539	16.3	99,675	32.8	22,226	7.3	0	0.0	303,706
Sandaun	27,426	16.4	0	0.0	112,726	67.5	0	0.0	18,614	11.2	1,361	0.8	6,793	4.1	0	0.0	166,919
Manus	5,471	15.7	0	0.0	13,767	39.4	0	0.0	15,661	44.9	0	0.0	0	0.0	0	0.0	34,899
New Ireland	8,503	8.2	0	0.0	15,040	14.6	0	0.0	6,035	5.8	73,681	71.4	0	0.0	0	0.0	103,259
East New Britain	23,021	13.2	0	0.0	114,319	65.6	0	0.0	20,550	11.8	16,340	9.4	0	0.0	0	0.0	174,230
West New Britain	8,962	8.2	0	0.0	95,301	87.2	0	0.0	1,432	1.3	3,604	3.3	0	0.0	0	0.0	109,299
Bougainville	6,981	4.2	1,724	1.0	113,108	67.7	0	0.0	16,148	9.7	29,196	17.5	0	0.0	0	0.0	167,156
Papua New Guinea	854,082	20.4	60,292	1.4	2,474,011	59.0	3,895	0.1	318,380	7.6	350,588	8.4	130,368	3.1	947	0.0	4,192,561

Sources: NSO (2002); PNGRIS.

Appendix Table A1.10.1 Total land area by landform and province (km²)

Province	Mountains and hills	%	Volcanic landforms	%	Plains and plateaus	%	Floodplains	%	Raised coral reefs and littoral areas	%	Total land area
Western	8,637	8.9	3,676	3.8	58,520	60.3	23,547	24.3	2,685	2.8	97,065
Gulf	17,337	51.2	1,425	4.2	3,802	11.2	8,005	23.7	3,278	9.7	33,847
Central	23,336	77.9	635	2.1	236	0.8	4,503	15.0	1,244	4.2	29,954
Milne Bay	9,752	69.0	357	2.5	1,158	8.2	1,007	7.1	1,851	13.1	14,125
Oro	11,190	49.7	4,721	21.0	2,218	9.9	4,117	18.3	264	1.2	22,510
Southern Highlands	16,803	65.4	7,513	29.2	894	3.5	488	1.9	0	0.0	25,698
Enga	10,723	90.6	485	4.1	332	2.8	299	2.5	0	0.0	11,839
Western Highlands	6,075	68.3	1,832	20.6	625	7.0	365	4.1	0	0.0	8,897
Simbu	4,728	78.5	1,210	20.1	74	1.2	10	0.2	0	0.0	6,022
Eastern Highlands	9,950	90.4	405	3.7	512	4.7	139	1.3	0	0.0	11,006
Morobe	25,716	76.7	950	2.8	4,854	14.5	1,513	4.5	492	1.5	33,525
Madang	19,903	69.3	885	3.1	2,369	8.2	4,988	17.4	587	2.0	28,732
East Sepik	17,238	39.4	50	0.1	4,862	11.1	20,619	47.2	951	2.2	43,720
Sandaun	23,995	66.6	0	0.0	3,402	9.4	8,374	23.3	239	0.7	36,010
Manus	1,078	51.4	535	25.5	0	0.0	141	6.7	344	16.4	2,098
New Ireland	5,531	57.5	442	4.6	1,594	16.6	0	0.0	2,048	21.3	9,615
East New Britain	12,536	83.0	939	6.2	112	0.7	818	5.4	704	4.7	15,109
West New Britain	11,711	56.4	5,107	24.6	88	0.4	1,944	9.4	1,903	9.2	20,753
Bougainville	1,789	19.2	5,567	59.7	281	3.0	679	7.3	1,013	10.9	9,329
Papua New Guinea	238,028	51.8	36,734	8.0	85,933	18.7	81,556	17.7	17,603	3.8	459,854

Sources: McAlpine and Quigley (c. 1995); PNGRIS.

Appendix Table A1.10.2 Land area used for agriculture by landform and province (km²)

Province	Mountains and hills	%	Volcanic landforms	%	Plains and plateaus	%	Floodplains	%	Raised coral reefs and littoral areas	%	Total land used for agriculture
Western	2,100	26.5	531	6.7	4,698	59.2	537	6.8	65	0.8	7,931
Gulf	2,852	75.0	37	1.0	168	4.4	588	15.5	156	4.1	3,801
Central	4,458	69.6	176	2.7	31	0.5	1,379	21.5	363	5.7	6,407
Milne Bay	3,378	59.4	254	4.5	545	9.6	683	12.0	831	14.6	5,691
Oro	1,015	23.8	1,966	46.2	553	13.0	677	15.9	47	1.1	4,258
Southern Highlands	4,433	62.3	2,293	32.2	276	3.9	110	1.5	0	0.0	7,112
Enga	3,356	89.5	84	2.2	233	6.2	76	2.0	0	0.0	3,749
Western Highlands	2,635	58.8	999	22.3	583	13.0	265	5.9	0	0.0	4,482
Simbu	2,152	85.6	298	11.8	55	2.2	10	0.4	0	0.0	2,515
Eastern Highlands	5,044	91.1	56	1.0	313	5.7	126	2.3	0	0.0	5,539
Morobe	9,338	76.3	317	2.6	1,968	16.1	431	3.5	191	1.6	12,245
Madang	12,261	76.4	379	2.4	1,467	9.1	1,412	8.8	527	3.3	16,046
East Sepik	5,857	65.1	47	0.5	1,011	11.2	1,939	21.6	138	1.5	8,992
Sandaun	6,268	76.3	0	0.0	673	8.2	1,133	13.8	137	1.7	8,211
Manus	1,002	57.4	511	29.3	0	0.0	40	2.3	194	11.1	1,747
New Ireland	1,993	44.0	397	8.8	627	13.8	0	0.0	1,514	33.4	4,531
East New Britain	2,188	58.0	739	19.6	22	0.6	379	10.0	444	11.8	3,772
West New Britain	2,499	44.0	1,337	23.6	31	0.5	409	7.2	1,400	24.7	5,676
Bougainville	1,033	20.0	3,121	60.6	145	2.8	83	1.6	771	15.0	5,153
Papua New Guinea	73,862	62.7	13,542	11.5	13,399	11.4	10,277	8.7	6,778	5.8	117,858

Sources: McAlpine and Quigley (c. 1995); PNGRIS.

Appendix Table A1.10.3 Total population (including urban and rural non-village populations) by landform and province

Province	Mountains and hills	%	Volcanic landforms	%	Plains and plateaus	%	Floodplains	%	Raised coral reefs and littoral areas	%	Total population
Western	29,801	19.4	6,928	4.5	52,505	34.2	49,909	32.6	14,161	9.2	153,304
Gulf	36,919	34.5	0	0.0	1,611	1.5	17,176	16.1	51,192	47.9	106,898
Central and NCD	330,789	75.5	7,763	1.8	514	0.1	49,339	11.3	49,736	11.4	438,141
Milne Bay	85,490	40.6	11,434	5.4	27,918	13.3	17,636	8.4	67,934	32.3	210,412
Oro	6,546	4.9	90,038	67.7	12,701	9.5	19,134	14.4	4,646	3.5	133,065
Southern Highlands	318,822	58.4	179,173	32.8	38,523	7.1	9,747	1.8	0	0.0	546,265
Enga	201,469	68.3	8,016	2.7	78,605	26.6	6,941	2.4	0	0.0	295,031
Western Highlands	140,946	32.0	157,054	35.7	91,126	20.7	50,899	11.6	0	0.0	440,025
Simbu	227,187	87.5	13,629	5.2	18,887	7.3	0	0.0	0	0.0	259,703
Eastern Highlands	319,956	73.9	2,410	0.6	84,490	19.5	26,116	6.0	0	0.0	432,972
Morobe	287,316	53.3	12,804	2.4	196,123	36.4	22,935	4.3	20,226	3.7	539,404
Madang	177,338	48.6	53,790	14.7	25,186	6.9	33,805	9.3	74,987	20.5	365,106
East Sepik	165,921	48.3	3,315	1.0	37,762	11.0	94,544	27.5	41,639	12.1	343,181
Sandaun	118,027	63.5	0	0.0	12,182	6.6	25,849	13.9	29,683	16.0	185,741
Manus	11,757	27.1	5,359	12.4	0	0.0	1,507	3.5	24,765	57.1	43,387
New Ireland	15,988	13.5	4,365	3.7	5,815	4.9	0	0.0	92,181	77.9	118,350
East New Britain	31,737	14.4	101,099	45.9	687	0.3	46,020	20.9	40,590	18.4	220,133
West New Britain	35,051	19.0	110,073	59.7	133	0.1	10,979	6.0	28,271	15.3	184,508
Bougainville	36,414	20.8	91,630	52.3	469	0.3	1,559	0.9	45,088	25.7	175,160
Papua New Guinea	2,577,475	49.7	858,880	16.5	685,237	13.2	484,095	9.3	585,099	11.3	5,190,786

Sources: McAlpine and Quigley (c. 1995); NSO (2002); PNGRIS.

Appendix Table A1.10.4 Total land area by altitude class and province (km²)

Province	Altitude class (metres above sea level)										Total land area		
	Lowlands 0-600	%	Intermediate 600-1200	%	Highlands 1200-1800	%	High altitude 1800-2400	%	Very high altitude 2400-2800	%	Uninhabited >2800	%	Total land area
Western	88,584	91.3	6,938	7.1	1,481	1.5	61	0.1	0	0.0	0	0.0	97,065
Gulf	30,890	91.3	2,419	7.1	517	1.5	21	0.1	0	0.0	0	0.0	33,847
Central	17,834	59.5	5,457	18.2	3,098	10.3	1,873	6.3	642	2.1	1,051	3.5	29,954
Milne Bay	11,348	80.3	1,729	12.2	706	5.0	307	2.2	13	0.1	22	0.2	14,125
Oro	13,023	57.9	5,124	22.8	2,054	9.1	1,418	6.3	20	0.1	872	3.9	22,510
Southern Highlands	3,660	14.2	7,854	30.6	7,821	30.4	3,840	14.9	1,095	4.3	1,427	5.6	25,698
Enga	283	2.4	1,142	9.6	2,242	18.9	2,111	17.8	1,968	16.6	4,092	34.6	11,839
Western Highlands	526	5.9	1,531	17.2	3,537	39.8	2,177	24.5	178	2.0	948	10.7	8,897
Simbu	131	2.2	2,160	35.9	1,903	31.6	1,255	20.8	146	2.4	427	7.1	6,022
Eastern Highlands	209	1.9	1,101	10.0	5,036	45.8	3,519	32.0	747	6.8	395	3.6	11,006
Morobe	10,133	30.2	8,952	26.7	7,298	21.8	5,141	15.3	872	2.6	1,130	3.4	33,525
Madang	19,945	69.4	4,719	16.4	1,920	6.7	1,429	5.0	163	0.6	555	1.9	28,732
East Sepik	38,987	89.2	3,054	7.0	974	2.2	526	1.2	29	0.1	149	0.3	43,720
Sandaun	24,921	69.2	5,330	14.8	3,317	9.2	1,650	4.6	403	1.1	389	1.1	36,010
Manus	2,098	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2,098
New Ireland	18,213	87.8	2,347	11.3	164	0.8	29	0.1	0	0.0	0	0.0	20,753
East New Britain	8,870	58.7	5,760	38.1	478	3.2	1	0.0	0	0.0	0	0.0	15,109
West New Britain	6,808	70.8	2,320	24.1	486	5.1	0	0.0	0	0.0	0	0.0	9,615
Bougainville	7,381	79.1	1,565	16.8	383	4.1	0	0.0	0	0.0	0	0.0	9,329
Papua New Guinea	303,844	66.1	69,505	15.1	43,416	9.4	25,359	5.5	6,275	1.4	11,455	2.5	459,854

Sources: McAlpine and Quigley (c. 1995); PNGRIS.

Appendix Table A1.10.5 Land area used for agriculture by altitude class and province (km²)

Province	Altitude class (metres above sea level)						Total land used for agriculture				
	Lowlands 0–600	%	Intermediate 600–1200	%	Highlands 1200–1800	%	High altitude 1800–2400	%	Very high altitude 2400–2800	%	
Western	7,219	91.0	318	4.0	329	4.1	66	0.8	0	0.0	7,931
Gulf	2,547	67.0	760	20.0	478	12.6	16	0.4	0	0.0	3,801
Central	4,273	66.7	1,035	16.2	750	11.7	348	5.4	0	0.0	6,407
Milne Bay	5,208	91.5	359	6.3	103	1.8	20	0.4	0	0.0	5,691
Oro	3,533	83.0	710	16.7	14	0.3	1	0.0	0	0.0	4,258
Southern Highlands	219	3.1	1,299	18.3	3,878	54.5	1,582	22.2	133	1.9	7,112
Enga	26	0.7	465	12.4	1,085	28.9	985	26.3	1,188	31.7	3,749
Western Highlands	133	3.0	765	17.1	2,769	61.8	733	16.4	82	1.8	4,482
Simbu	24	1.0	484	19.2	1,045	41.5	875	34.8	88	3.5	2,515
Eastern Highlands	45	0.8	371	6.7	3,594	64.9	1,494	27.0	34	0.6	5,539
Morobe	3,941	32.2	4,502	36.8	3,134	25.6	636	5.2	32	0.3	12,245
Madang	12,662	78.9	2,450	15.3	752	4.7	162	1.0	19	0.1	16,046
East Sepik	8,417	93.6	468	5.2	99	1.1	8	0.1	0	0.0	8,992
Sandaun	6,214	75.7	1,021	12.4	760	9.3	199	2.4	16	0.2	8,211
Manus	1,747	100.0	0	0.0	0	0.0	0	0.0	0	0.0	1,747
New Ireland	4,496	99.2	35	0.8	0	0.0	0	0.0	0	0.0	4,531
East New Britain	3,306	87.7	464	12.3	2	0.1	0	0.0	0	0.0	3,772
West New Britain	4,902	86.4	743	13.1	31	0.5	0	0.0	0	0.0	5,676
Bougainville	4,616	89.6	515	10.0	22	0.4	0	0.0	0	0.0	5,153
Papua New Guinea	73,531	62.4	16,766	14.2	18,844	16.0	7,126	6.0	1,591	1.4	117,858

Sources: McAlpine and Quigley (c. 1995); PNGRIS.

Appendix Table A1.10.6 Total population (including urban and rural non-village populations) by altitude class and province

Province	Altitude class (metres above sea level)							Total population			
	Lowlands 0–600	%	Intermediate 600–1200	%	Highlands 1200–1800	%	High altitude 1800–2400	%	Very high altitude 2400–2800	%	Total population
Western	147,636	96.3	2,439	1.6	3,054	2.0	174	0.1	0	0.0	153,304
Gulf	93,699	87.7	7,347	6.9	4,986	4.7	866	0.8	0	0.0	106,898
Central and NCD	383,059	87.4	17,214	3.9	24,844	5.7	12,619	2.9	405	0.1	438,141
Milne Bay	192,880	91.7	12,756	6.1	4,776	2.3	0	0.0	0	0.0	210,412
Oro	115,574	86.9	16,875	12.7	615	0.5	0	0.0	0	0.0	133,065
Southern Highlands	5,223	1.0	33,099	6.1	330,120	60.4	166,548	30.5	11,275	2.1	546,265
Enga	566	0.2	11,214	3.8	93,944	31.8	100,249	34.0	89,058	30.2	295,031
Western Highlands	754	0.2	16,048	3.6	360,035	81.8	52,805	12.0	10,382	2.4	440,025
Simbu	117	0.0	11,654	4.5	144,554	55.7	101,633	39.1	1,744	0.7	259,703
Eastern Highlands	0	0.0	2,385	0.6	304,402	70.3	123,214	28.5	2,971	0.7	432,972
Morobe	233,425	43.3	131,050	24.3	148,832	27.6	22,989	4.3	3,108	0.6	539,404
Madang	282,971	77.5	39,069	10.7	33,149	9.1	8,828	2.4	1,089	0.3	365,106
East Sepik	342,924	99.9	171	0.0	87	0.0	0	0.0	0	0.0	343,181
Sandaun	148,802	80.1	18,531	10.0	17,405	9.4	1,003	0.5	0	0.0	185,741
Manus	43,387	100.0	0	0.0	0	0.0	0	0.0	0	0.0	43,387
New Ireland	118,241	99.9	0	0.0	109	0.1	0	0.0	0	0.0	118,350
East New Britain	210,043	95.4	10,090	4.6	0	0.0	0	0.0	0	0.0	220,133
West New Britain	172,660	93.6	11,848	6.4	0	0.0	0	0.0	0	0.0	184,508
Bougainville	162,558	92.8	12,472	7.1	130	0.1	0	0.0	0	0.0	175,160
Papua New Guinea	2,654,521	51.1	354,262	6.8	1,471,042	28.3	590,928	11.4	120,033	2.3	5,190,786

Sources: McAlpine and Quigley (c. 1995); NSO (2002); PNGRIS.

Appendix Table A1.10.7 Total population (including urban and rural non-village populations) by altitude range and province

Province	Altitude range (metres above sea level)															
	0–100	%	100–200	%	200–400	%	400–600	%	600–800	%	800–1000	%	1000–1200	%	1200–1400	%
Western	93,509	61.0	33,932	22.1	8,049	5.3	3,185	2.1	10,724	7.0	1,306	0.9	771	0.5	564	0.4
Gulf	75,392	70.5	1,245	1.2	1,025	1.0	215	0.2	2,383	2.2	3,390	3.2	4,554	4.3	6,834	6.4
Central	126,678	68.9	12,468	6.8	4,043	2.2	4,829	2.6	5,568	3.0	2,063	1.1	3,401	1.8	4,442	2.4
National Capital District	154,229	60.7	99,207	39.0	723	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Milne Bay	180,143	85.6	10,124	4.8	5,483	2.6	3,409	1.6	3,151	1.5	2,191	1.0	3,280	1.6	2,079	1.0
Oro	52,589	39.5	31,713	23.8	13,305	10.0	16,733	12.6	6,690	5.0	9,676	7.3	1,702	1.3	226	0.2
Southern Highlands	0	0.0	0	0.0	1,038	0.2	1,742	0.3	4,787	0.9	8,028	1.5	5,128	0.9	7,723	1.4
Enga	0	0.0	0	0.0	0	0.0	110	0.0	316	0.1	490	0.2	2,077	0.7	4,942	1.7
Western Highlands	0	0.0	0	0.0	0	0.0	915	0.2	1,563	0.4	1,135	0.3	1,261	0.3	14,544	3.3
Simbu	0	0.0	0	0.0	0	0.0	194	0.1	113	0.0	1,275	0.5	5,271	2.0	6,793	2.6
Eastern Highlands	0	0.0	0	0.0	0	0.0	61	0.0	0	0.0	0	0.0	751	0.2	5,702	1.3
Morobe	218,312	40.5	39,790	7.4	9,340	1.7	25,150	4.7	24,593	4.6	28,210	5.2	25,596	4.7	45,769	8.5
Madang	164,809	45.1	62,986	17.3	36,447	10.0	27,798	7.6	10,218	2.8	4,574	1.3	8,327	2.3	10,171	2.8
East Sepik	179,688	52.4	56,285	16.4	75,906	22.1	26,640	7.8	3,417	1.0	439	0.1	56	0.0	170	0.0
Sandaun	61,610	33.2	23,637	12.7	20,431	11.0	36,063	19.4	14,017	7.5	7,792	4.2	778	0.4	860	0.5
Manus	37,543	86.5	1,069	2.5	4,425	10.2	349	0.8	0	0.0	0	0.0	0	0.0	0	0.0
New Ireland	111,556	94.3	3,777	3.2	1,605	1.4	414	0.4	0	0.0	211	0.2	787	0.7	0	0.0
East New Britain	97,886	44.5	51,317	23.3	36,677	16.7	22,521	10.2	4,846	2.2	3,999	1.8	2,577	1.2	218	0.1
West New Britain	139,801	75.8	33,001	17.9	6,762	3.7	4,286	2.3	657	0.4	0	0.0	0	0.0	0	0.0
Bougainville	100,333	57.3	26,974	15.4	14,092	8.0	18,161	10.4	8,333	4.8	3,115	1.8	2,419	1.4	1,465	0.8
Papua New Guinea	1,794,077	34.6	487,525	9.4	239,352	4.6	192,777	3.7	101,379	2.0	77,892	1.5	68,738	1.3	112,503	2.2

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Appendix Table A1.10.7 (continued)

Province	Altitude range (metres above sea level)												Total			
	1400–1600	%	1600–1800	%	1800–2000	%	2000–2200	%	2200–2400	%	2400–2600	%	2600–2800	%	population	%
Western	338	0.2	926	0.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	153,304	0.0
Gulf	8,960	8.4	1,646	1.5	1,254	1.2	0	0.0	0	0.0	0	0.0	0	0.0	106,898	0.0
Central	4,546	2.5	5,578	3.0	4,961	2.7	4,073	2.2	1,039	0.6	293	0.2	0	0.0	183,983	0.0
National Capital District	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	254,158	0.0
Milne Bay	553	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	210,412	0.0
Oro	345	0.3	53	0.0	32	0.0	0	0.0	0	0.0	0	0.0	0	0.0	133,065	0.0
Southern Highlands	26,603	4.9	92,047	16.9	207,142	37.9	114,019	20.9	56,124	10.3	14,777	2.7	7,106	1.3	546,265	1.3
Enga	9,744	3.3	13,758	4.7	42,597	14.4	55,660	18.9	68,133	23.1	51,023	17.3	46,181	15.7	295,031	15.7
Western Highlands	44,873	10.2	184,617	42.0	137,346	31.2	20,706	4.7	14,521	3.3	13,768	3.1	4,775	1.1	440,025	1.1
Simbu	10,404	4.0	72,375	27.9	79,046	30.4	51,780	19.9	21,276	8.2	8,298	3.2	2,878	1.1	259,703	1.1
Eastern Highlands	32,078	7.4	161,836	37.4	156,694	36.2	66,429	15.3	8,057	1.9	504	0.1	859	0.2	432,972	0.2
Morobe	46,190	8.6	40,235	7.5	19,310	3.6	9,328	1.7	4,786	0.9	2,289	0.4	506	0.1	539,404	0.1
Madang	13,327	3.7	10,819	3.0	11,566	3.2	2,989	0.8	1,077	0.3	0	0.0	0	0.0	365,106	0.0
East Sepik	579	0.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	343,181	0.0
Sandaun	4,731	2.5	4,478	2.4	2,441	1.3	7,290	3.9	1,006	0.5	607	0.3	0	0.0	185,741	0.0
Manus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	43,387	0.0
New Ireland	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	118,350	0.0
East New Britain	91	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	220,133	0.0
West New Britain	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	184,508	0.0
Bougainville	267	0.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	175,160	0.0
Papua New Guinea	203,629	3.9	588,368	11.3	662,388	12.8	332,275	6.4	176,019	3.4	91,559	1.8	62,306	1.2	5,190,786	1.2

Sources: NSO (2002); digital 1:250 000 topographic map; PNGRIS.

Appendix Table A1.12.1 Total land area by land quality and province (km²)

Province	Very low	%	Low	%	Moderate	%	High	%	Very high	%	Total land area
Western	31,400	32.3	60,682	62.5	4,984	5.1	0	0.0	0	0.0	97,065
Gulf	3,035	9.0	26,594	78.6	3,727	11.0	205	0.6	286	0.8	33,847
Central	10,469	34.9	12,076	40.3	5,525	18.4	1,365	4.6	519	1.7	29,954
Milne Bay	613	4.3	5,410	38.3	5,394	38.2	2,325	16.5	384	2.7	14,125
Oro	2,439	10.8	9,869	43.8	7,556	33.6	1,467	6.5	1,179	5.2	22,510
Southern Highlands	6,583	25.6	14,848	57.8	3,877	15.1	356	1.4	35	0.1	25,698
Enga	5,301	44.8	5,589	47.2	817	6.9	132	1.1	0	0.0	11,839
Western Highlands	980	11.0	4,695	52.8	2,106	23.7	427	4.8	689	7.7	8,897
Simbu	959	15.9	3,623	60.2	1,097	18.2	199	3.3	144	2.4	6,022
Eastern Highlands	2,952	26.8	5,071	46.1	2,261	20.5	414	3.8	308	2.8	11,006
Morobe	5,210	15.5	19,183	57.2	8,165	24.4	733	2.2	233	0.7	33,525
Madang	6,018	20.9	11,828	41.2	10,017	34.9	576	2.0	293	1.0	28,732
East Sepik	2,140	4.9	28,575	65.4	9,749	22.3	3,256	7.4	0	0.0	43,720
Sandaun	2,034	5.6	13,735	38.1	10,383	28.8	5,867	16.3	3,991	11.1	36,010
Manus	60	2.9	878	41.9	1,052	50.1	91	4.4	17	0.8	2,098
New Ireland	127	1.3	6,667	69.3	2,599	27.0	176	1.8	46	0.5	9,615
East New Britain	1,921	12.7	9,405	62.2	2,235	14.8	597	4.0	951	6.3	15,109
West New Britain	2,714	13.1	9,709	46.8	7,060	34.0	823	4.0	446	2.2	20,753
Bougainville	316	3.4	3,126	33.5	3,518	37.7	1,522	16.3	847	9.1	9,329
Papua New Guinea	85,270	18.5	251,563	54.7	92,121	20.0	20,532	4.5	10,368	2.3	459,854

Source: PNGRIS.

Appendix Table A1.12.2 Total population (including urban and rural non-village populations) by land quality and province

Province	Very low	%	Low	%	Moderate	%	High	%	Very high	%	Total population
Western	45,554	29.7	99,500	64.9	8,250	5.4	0	0.0	0	0.0	153,304
Gulf	15,543	14.5	66,856	62.5	15,591	14.6	278	0.3	8,629	8.1	106,898
Central and NCD	156,747	35.8	216,132	49.3	52,346	11.9	6,570	1.5	6,346	1.4	438,141
Milne Bay	17,794	8.5	68,615	32.6	88,995	42.3	29,528	14.0	5,480	2.6	210,412
Oro	925	0.7	35,781	26.9	46,027	34.6	12,884	9.7	37,447	28.1	133,065
Southern Highlands	71,327	13.1	271,214	49.6	139,518	25.5	52,152	9.5	12,054	2.2	546,265
Enga	54,209	18.4	196,820	66.7	44,002	14.9	0	0.0	0	0.0	295,031
Western Highlands	0	0.0	181,534	41.3	126,376	28.7	6,062	1.4	126,054	28.6	440,025
Simbu	32,637	12.6	123,779	47.7	38,785	14.9	30,116	11.6	34,386	13.2	259,703
Eastern Highlands	72,456	16.7	187,654	43.3	102,876	23.8	26,381	6.1	43,605	10.1	432,972
Morobe	52,351	9.7	294,824	54.7	168,108	31.2	19,684	3.6	4,438	0.8	539,404
Madang	32,266	8.8	139,411	38.2	139,856	38.3	10,875	3.0	42,697	11.7	365,106
East Sepik	4,329	1.3	98,457	28.7	124,942	36.4	115,453	33.6	0	0.0	343,181
Sandaun	1,438	0.8	43,507	23.4	44,991	24.2	54,646	29.4	41,159	22.2	185,741
Manus	6,417	14.8	11,820	27.2	20,373	47.0	4,014	9.3	764	1.8	43,387
New Ireland	5,831	4.9	53,099	44.9	40,377	34.1	16,117	13.6	2,926	2.5	118,350
East New Britain	12,960	5.9	38,300	17.4	26,601	12.1	41,651	18.9	100,621	45.7	220,133
West New Britain	3,887	2.1	91,484	49.6	74,196	40.2	10,190	5.5	4,751	2.6	184,508
Bougainville	1,907	1.1	20,388	11.6	77,623	44.3	51,582	29.4	23,660	13.5	175,160
Papua New Guinea	588,579	11.3	2,239,175	43.1	1,379,832	26.6	488,182	9.4	495,017	9.5	5,190,786

Sources: NSO (2002); PNGRIS.

Appendix Table A1.13.1 The usual and extreme altitudinal ranges of 22 crops in PNG

Common name	Scientific name	Economic product	Mean usual altitudinal range (m)	Extreme altitudinal range (m)	Number of observations/standard deviation (m)	
					Usual minimum	Usual maximum
Arabica coffee ^(a)	<i>Coffea arabica</i>	export crop	700–2050	80–2380	15/150	30/90
Betel nut	<i>Areca catechu</i>	stimulant	0–1100	0–1390	–	17/140
Broad bean	<i>Vicia faba</i>	vegetable	2050–2650	1620–2760	4/90	4/80
Cassava	<i>Manihot esculenta</i>	staple food	0–1800	0–2210	–	32/120
Coastal pandanus	<i>Pandanus tectorius</i>	fruit	0–50	0–?	–	–
Cocoa	<i>Theobroma cacao</i>	export crop	0–800	0–1390	–	7/140
Irish potato ^(b)	<i>Solanum tuberosum</i>	staple food	700–2750	0–2850	7/90	4/60
Kangkong	<i>Ipomoea aquatica</i>	vegetable	0–600	0–760	–	5/100
Kapok ^(c)	<i>Ceiba pentandra</i>	export crop	0–1250	0–1550	–	6/200
Karuka	<i>Pandanus julianettii</i>	edible nut	1800–2600	1450–2800	50/110	18/100
Pak choi	<i>Brassica rapa</i>	vegetable	0–2550	0–2800	–	7/160
Pao	<i>Barringtonia procera</i>	edible nut	0–500	0–620	–	4/90
Pawpaw	<i>Carica papaya</i>	fruit	0–1700	0–1950	–	30/100
Purple passionfruit	<i>Passiflora edulis</i> f. <i>edulis</i>	fruit	800–2300	700–2520	7/90	13/90
Pyrethrum	<i>Chrysanthemum cinerariaefolium</i>	export crop	2400–2800	1630–2850	8/20	5/50
Sis nut	<i>Pangium edule</i>	edible nut	0–1050	0–1380	–	11/120
Spring onion	<i>Allium cepa</i> var. <i>cepa</i>	vegetable	0–2700	0–2850	–	5/60
Swamp taro	<i>Cyrtosperma chamissonis</i>	staple food	0–50	0–?	–	–
Sweet potato ^(d)	<i>Ipomoea batatas</i>	staple food	0–2700	0–2850	–	10/150
Tomato	<i>Lycopersicon esculentum</i>	vegetable	0–2250	0–2630	–	13/110
Watercress	<i>Nasturtium officinale</i>	vegetable	0–2900	0–3580	–	3/70
Winged bean ^(e)	<i>Psophocarpus tetragonolobus</i>	vegetable	0–1900	0–2070	–	28/90

(a) Plantation Arabica coffee occurs over a range of 930 m (Wau area) to 1820 m (Asaro Valley and Wahgi Valley).

(b) Irish potato grown by villagers for subsistence only is usually planted above 1900 m. Below 1900 m most crops are intended for both sale and subsistence. Smith (1977:189) records that he grew Irish potato on Mt. Wilhelm at 3580 m.

(c) Kapok was introduced in early colonial times as a potential export crop, but the industry did not develop.

(d) The usual upper limit of sweet potato (2700 m) is derived from the 10 highest observations, not from all observations.

(e) The usual range from sea level to 1900 m is for all plantings of winged bean. This species is planted mainly for tuber production over the range 1200–1900 m.

Source: Bourke (1989).

Appendix Table A1.14.1 Rural population by accessibility class and province

Province	Accessibility class						Total rural population				
	Very poor	%	Poor	%	Moderate	%	Good	%	Very good	%	
Western	7,488	6.9	16,265	15.1	78,282	72.6	5,802	5.4	0	0.0	107,837
Gulf	3,819	4.1	22,895	24.8	62,057	67.3	3,493	3.8	0	0.0	92,265
Central	7,005	4.5	10,375	6.6	47,107	30.0	85,963	54.7	6,609	4.2	157,058
Milne Bay	4,755	2.5	57,465	30.5	92,920	49.3	33,195	17.6	0	0.0	188,334
Oro	7,850	7.4	22,506	21.2	27,497	25.9	48,435	45.6	0	0.0	106,288
Southern Highlands	21,217	4.0	71,534	13.6	213,533	40.6	220,115	41.8	0	0.0	526,398
Enga	11,327	4.0	17,823	6.3	106,155	37.4	148,193	52.3	0	0.0	283,498
Western Highlands	916	0.2	48,617	13.1	21,362	5.8	211,662	57.0	88,457	23.8	371,014
Simbu	841	0.3	12,399	5.1	22,185	9.1	207,323	85.4	0	0.0	242,748
Eastern Highlands	6,247	1.6	17,403	4.4	57,991	14.7	267,456	68.0	44,321	11.3	393,418
Morobe	5,030	1.4	40,959	11.5	260,019	73.0	50,092	14.1	0	0.0	356,100
Madang	10,785	3.5	106,152	34.4	126,545	41.1	31,611	10.3	33,041	10.7	308,135
East Sepik	7,487	2.5	0	0.0	148,010	48.7	148,209	48.8	0	0.0	303,706
Sandaun	36,812	22.1	10,316	6.2	116,811	70.0	2,979	1.8	0	0.0	166,919
Manus	0	0.0	0	0.0	29,228	83.8	5,671	16.2	0	0.0	34,899
New Ireland	0	0.0	11,700	11.3	45,878	44.4	45,681	44.2	0	0.0	103,259
East New Britain	20,190	11.6	7,338	4.2	23,189	13.3	19,382	11.1	104,132	59.8	174,230
West New Britain	2,320	2.1	35,424	32.4	23,559	21.6	47,995	43.9	0	0.0	109,299
Bougainville	2,700	1.6	0	0.0	102,069	61.1	62,387	37.3	0	0.0	167,156
Papua New Guinea	156,791	3.7	509,171	12.1	1,604,395	38.3	1,645,644	39.3	276,560	6.6	4,192,561

Sources: NSO (2002); MASP.

Appendix Table A2.1.1 Estimated food consumption in PNG, 2006 and 1996

Food	Tonnes/year	Quantity in 2006 ^(a)		Quantity in 1996 (kg/person/year)			Notes
		kg/person/year	PNG	Rural	Urban	PNG	
Staple foods							
Sweet potato	2,542,000	416	260	299	42		The 2006 source for staple foods is Table 2.2.1, extrapolated from 2000 to 2006 using a population growth rate of 2.76% per year.
Banana	515,000	84	83	90	47		The 2006 figure for sweet potato consumption is 75% of the estimated production, as an estimated 25% of sweet potato in PNG is fed to pigs.
Yam (all species)	322,000	53	28	31	9		
Cassava	321,000	52	25	27	9		
Taro	276,000	45	62	68	23		Data for taro and Chinese taro were combined in the 1996 Household Survey.
Chinese taro	267,000	44					
Sago	98,000	16	23	21	33		Sago has a higher food energy value than the other staple foods.
Irish potato	22,000	4	3	3	6		
Rice (local)	1,000	0.2					
Other garden foods							2006 estimates for other garden foods are crude and have a large error factor.
Sugar cane	372,000	61	35	40	10		
Coconut	120,000	20	44	42	51		The 2006 source is Table 2.2.1, extrapolated from 2000 to 2006 using a population growth rate of 2.76% per year.
Vegetables	500,000	81	72	78	34		Corn production, perhaps 50,000 tonnes/year, is included in the 2006 category.
Fruit	100,000	16	14	14	16		
Peanuts, other nuts	20,000	3	3	3	1		

... continued

Appendix Table A2.1.1 (continued)

Food	Quantity in 2006 ^(a)		Quantity in 1996 (kg/person/year)			Notes
	Tonnes/year	kg/person/year	PNG	Rural	Urban	
Imported energy foods						
Rice	184,000	30	31	24	66	2006 data for imported energy foods are from Table A2.7.1.
Flour	107,000	18	7	5	14	Flour is milled in PNG from imported wheat.
Bread			3	1	13	
Biscuits			2	1	4	
Meat						
2006 meat data are from Tables 2.6.3 and A2.9.1.						
Pork	29,300	5	11	13	2	
Chicken	25,900	4	6	5	13	
Sheep meat	24,200	4	5	4	10	
Bush meat	21,000	3	5	5	3	
Beef, local and imported	7,300	1				The figure for tinned meat in the 1996 survey can be compared with the combined figures for beef and tinned meat and offal in the 2006 estimates.
Tinned meat and offal (imported)	3,600	0.6				
Tinned meat			2	1	7	
Fish and other seafood						
2006 data for fish and other seafood are derived from Sections 2.10 and 59 and Table 2.1.2. Figures for fish and other seafood have a large error.						
Fresh and smoked	50,000	8	10	8	21	
Local tuna	15,000	2				
Imported fish	10,800	2	3	2	7	

... continued

Appendix Table A2.1.1 (continued)

Food	Tonnes/year	Quantity in 2006 ^[a]		Quantity in 1996 (kg/person/year)			Notes
		kg/person/year	PNG	Rural	Urban		
Other foods							The categories used for other foods differ somewhat between the two estimates.
Sugar	34,000	6	4	3	8	2006 data are from Section 5.10.	
Imported fruit and vegetables	6,000	1				Data are from Table A2.8.1.	
Milk and other dairy	5,400	1	0	0	1	2006 data are from Table 2.1.2.	
Animal fat	6,200	1				Data are from Table 2.1.2.	
Vegetable oils	5,500	1				Data are from Table 2.1.2.	
Eggs	3,100	0.5				Data are from Table 2.6.3.	
Butter, margarine, oil and dripping			1	1	3		
Minor dairy, cereal, eggs			1	0	3		
Miscellaneous						The foods classed under miscellaneous were recorded in the 1996 survey, but data are not available for 2006.	
Snack foods			0	0	1		
Salt, spices, sauces			1	1	1		
Soft drink			4	3	12		
Beer			4	3	15		
Tea, coffee, milo			0	0	1		
Betel nut, lime, mustard			11	11	10		

[a] The quantities of foods consumed per person in 2006 are based on the estimated total population of 6 112 000 for that year. Sources: 1996: Gibson (2001:41); 2006: various sections, this volume.

Appendix Table A2.2.1 Estimated production of banana, cassava, coconut, Irish potato, Queensland arrowroot, rice, sago and sweet potato in 2000, by province (tonnes/year)

Province	Banana	Cassava	Coconut	Irish potato	Queensland arrowroot	Rice	Sago	Sweet potato
Western	15,167	9,141	4,312	0	0	0	12,940	6,863
Gulf	10,537	3,892	2,857	171	54	0	10,369	20,308
Central	43,014	19,379	5,142	1,305	787	47	588	49,267
Milne Bay	23,591	51,485	9,795	444	590	4	1,676	43,831
Oro	9,866	10,403	1,549	0	0	48	1,624	53,309
Southern Highlands	15,121	12,626	449	4,920	0	0	2,405	619,561
Enga	6,052	4,215	0	6,485	0	0	104	340,745
Western Highlands	30,989	10,412	0	1,725	0	0	7	425,964
Simbu	10,334	2,482	0	593	0	0	166	294,708
Eastern Highlands	17,038	6,134	0	0	0	0	3	469,939
Morobe	63,311	12,111	5,704	2,455	0	1	572	194,695
Madang	41,729	16,612	14,091	661	0	0	5,288	777,46
East Sepik	37,100	5,086	17,806	0	0	0	23,484	26,175
Sandaun	18,322	883	8,133	0	0	0	16,711	25,036
Manus	1,389	5,715	1,956	0	0	0	4,575	4,477
New Ireland	8,288	15,652	5,612	0	0	0	1,797	38,891
East New Britain	55,587	33,900	8,847	0	0	0	0	42,642
West New Britain	11,885	39,855	5,101	0	0	0	222	45,103
Bougainville	17,176	11,911	9,575	0	0	307	431	92,591
Papua New Guinea	436,496	271,894	100,929	18,759	1,431	407	82,962	2,871,851

Source: Bourke and Vlassak (2004).

Appendix Table A2.2.2 Estimated production of various taro and yam species in 2000, by province (tonnes/year)

Province	Colocasia taro	Chinese taro	Taro (Alocasia)	Taro (Amor-phophallus)	Swamp taro	Lesser yam (D. esculenta)	Greater yam (D. alata)	Yam (D. nummularia)	Aerial yam (D. bulbifera)	Yam (D. pentaphylla)
Western	5,066	2,165	0	108	0	7,794	1,910	0	0	0
Gulf	1,300	3,625	0	49	108	204	271	0	0	0
Central	5,796	6,715	310	504	0	10,462	7,109	0	197	0
Milne Bay	15,678	4,892	851	455	0	28,361	12,455	101	12	0
Oro	11,784	11,182	29	2	0	6,337	5,298	0	0	0
Southern Highlands	11,409	5,431	0	0	0	0	3,275	0	0	0
Enga	8,780	287	0	0	0	0	2,240	0	0	0
Western Highlands	9,212	1,586	0	0	0	567	3,143	0	0	0
Simbu	4,828	416	0	0	0	0	2,408	0	0	0
Eastern Highlands	11,160	15	0	0	0	6	5,792	0	0	0
Morobe	22,699	58,938	99	0	0	8,435	17,855	377	53	37
Madang	38,621	46,636	0	0	0	32,733	9,049	0	0	0
East Sepik	24,689	8,045	48	0	0	64,927	6,810	0	205	0
Sandaun	15,489	6,117	0	0	0	5,903	2,912	0	0	0
Manus	390	636	0	0	406	1,120	81	0	0	0
New Ireland	9,165	2,896	375	0	34	10,684	3,642	0	0	0
East New Britain	9,230	30,993	565	0	0	0	491	0	0	0
West New Britain	16,002	23,794	68	99	0	2,714	1,832	0	0	0
Bougainville	7,790	12,167	44	0	275	123	4,785	0	0	0
Papua New Guinea	229,088	226,536	2,389	1,217	823	180,370	91,358	478	467	37

Source: Bourke and Vlassak (2004).

Appendix Table A2.5.1 Estimated rice production, 1962–2000 (tonnes)

Year	Estimated production	Year	Estimated production	Year	Estimated production
1962	311	1975	1,268	1988	110
1963	–	1976	1,493	1989	340
1964	807	1977	–	1990	240
1965	–	1978	920	1991	940
1966	1,168	1979	760	1992	880
1967	–	1980	920	1993	340
1968	1,391	1981	610	1994	400
1969	1,779	1982	1,128	1995	300
1970	1,608	1983	380	1996	320
1971	2,206	1984	330	1997	60
1972	1,608	1985	1,143	1998	80
1973	1,008	1986	140	1999	180
1974	1,458	1987	80	2000	300

Note: Data from different sources do not always agree. For example, for the year 2000, Bourke estimated 410 tonnes (Table 2.2.1), whereas Blakeney and Clough (2001) estimated 300 tonnes.

Sources: 1962–1976: Hale (c. 1978); 1978–1990: DAL (1992:51); 1991–2000: Blakeney and Clough (2001).

Appendix Table A2.7.1 Volume of rice and wheat imports, 1961–2007 (tonnes)

Year	Rice	Wheat ^[a]	Year	Rice	Wheat ^[a]
1961	21,600	9,135	1985	127,600	69,000
1962	21,600	9,190	1986	169,982	80,000
1963	23,200	10,022	1987	132,058	77,000
1964	24,000	11,589	1988	117,300	69,500
1965	28,100	13,994	1989	130,155	85,000
1966	33,800	16,402	1990	120,810	93,500
1967	32,800	17,939	1991	122,970	86,500
1968	38,700	19,889	1992	131,180	103,000
1969	38,300	25,725	1993	146,960	116,000
1970	45,200	31,534	1994	156,070	120,500
1971	47,100	32,270	1995	156,100	110,000
1972	48,600	30,818	1996	162,670	107,000
1973	61,700	28,697	1997	207,690 ^[b]	114,000
1974	41,700	30,804	1998	168,900	120,237
1975	55,500	32,503	1999	150,130	134,410
1976	55,100	33,345	2000	151,745	136,844
1977	72,449	38,067	2001	143,319	120,000
1978	77,642	42,844	2002	153,371	108,688
1979	81,277	46,769	2003	147,318	130,826
1980	88,924	48,129	2004	153,179	106,077
1981	88,099	44,675	2005	160,508	160,856
1982	93,524	44,283	2006	187,654	123,911
1983	92,633	50,262	2007	191,470	149,006
1984	102,774	56,164			

^[a] Wheat import data have been converted from a June year to a calendar year.

^[b] Rice imports were actually greater than this in 1997 because of imports from Asia for food relief following the 1997 drought and frosts (see Section 1.6). The figure given here is that imported by Trukai Industries Limited from Australia.

Sources: 1961–1999: Gibson (2001a: Appendix C); 2000–2007: Trukai Industries Limited, Port Moresby, and Australian Government Wheat Export Authority.

Appendix Table A2.8.1 Volume of fruit and vegetable imports from Australia and New Zealand, 1983–2003 (tonnes)

Year	Australia	New Zealand	Australia and New Zealand combined
1983	5,768	3,708	9,475
1984	4,763	3,541	8,304
1985	5,130	3,405	8,535
1986	5,967	3,265	9,232
1987	6,163	1,542	7,705
1988	6,844	1,202	8,046
1989	8,163	1,599	9,763
1990	7,177	2,023	9,200
1991	6,683	2,232	8,915
1992	6,654	1,504	8,158
1993	6,669	2,764	9,434
1994	7,029	2,019	9,048
1995	6,561	1,150	7,712
1996	7,547	1,428	8,975
1997	7,603	1,636	9,238
1998	6,660	1,749	8,409
1999	4,426	2,551	6,978
2000	3,448	3,125	6,573
2001	3,408	3,078	6,486
2002	3,483	2,957	6,440
2003	3,152	2,503	5,654

Sources: Australian Bureau of Statistics; Statistics New Zealand.

Appendix Table A2.9.1 Composition of meat imports from Australia and New Zealand, 1983–2003 (tonnes)

Year	Sheep meat	Beef	Offal	Tinned meat	Poultry	Pig meat	Other	Total
1983	7,780	5,187	1,270	9,371	539	326	342	24,815
1984	9,981	3,768	1,409	10,699	458	351	152	26,818
1985	11,481	5,038	1,564	11,448	577	267	320	30,695
1986	14,680	6,842	1,960	7,041	1,276	229	252	32,279
1987	19,405	10,326	3,182	2,176	1,034	638	149	36,910
1988	23,037	12,238	3,369	670	304	57	495	40,170
1989	23,235	11,930	2,522	712	386	209	476	39,470
1990	28,323	9,111	2,013	385	80	226	195	40,333
1991	31,228	9,635	2,782	361	83	209	310	44,609
1992	36,755	10,301	3,173	149	57	94	706	51,237
1993	41,963	11,894	3,150	97	37	60	331	57,532
1994	42,985	13,349	3,298	226	31	52	141	60,081
1995	38,618	11,017	2,750	159	25	37	122	52,728
1996	39,209	7,688	8,779	287	51	331	400	56,745
1997	39,774	4,677	9,532	373	17	35	397	54,805
1998	33,613	4,473	7,635	123	37	72	309	46,263
1999	31,447	3,201	7,727	189	3	46	441	43,055
2000	37,196	3,236	6,819	286	10	35	167	47,749
2001	27,311	4,512	3,405	264	26	41	34	35,593
2002	22,038	5,618	2,501	889	32	138	85	31,301
2003	23,158	4,457	1,985	937	57	243	32	30,868

Sources: Australian Bureau of Statistics; Statistics New Zealand.

Appendix Table A2.10.1 Value of fishery imports by country, 1981–2003 (US\$)

Country	1981	1982	1983	1984	1985
Australia	559,870	589,085	794,113	1,062,726	586,245
Solomon Islands	–	–	–	–	–
Canada	33,608	27,351	39,035	31,810	18,283
Chile	–	–	–	247,303	–
China	178,344	249,783	476,609	399,242	205,121
Congo	–	–	–	–	–
Denmark	5,856	3,357	3,045	1,047	6,466
Fiji	–	–	–	–	–
France	2,989	2,216	–	1,080	–
(East) Germany	17,483	13,908	54,831	15,257	5,411
Hong Kong	66,338	99,162	27,783	69,654	17,371
Indonesia	–	2,588	–	933	1,386
Japan	31,621,443	24,264,220	24,162,512	22,718,711	23,267,482
North Korea	5,367	–	–	681	–
South Korea	23,242	28,525	134,315	282,381	60,583
Malaysia	38,986	40,063	18,771	4,779	2,578
Taiwan	29,496	22,118	2,311	927	2,652
Netherlands	1,083	734	1,456	–	1,046
New Zealand	1,070,872	1,428,273	1,528,425	1,722,479	1,647,772
Norway	22,827	19,489	20,014	6,504	1,231
Peru	1,255,223	552,666	17,660	175,296	–
Philippines	2,280	5,592	10,322	3,707	5,835
Portugal	3,075	3,664	4,622	2,167	3,123
Singapore	10,979	57,984	37,298	12,670	22,648
Slovenia	–	–	–	–	–
South Africa	714	–	–	–	–
Spain	1,856	2,556	1,922	–	–
Switzerland	–	–	–	–	–
Thailand	131,026	158,177	63,394	16,077	25,713
United Kingdom	37,008	15,135	16,052	13,618	40,470
United States	88,622	160,107	417,730	283,089	51,153
Other countries	17,183	2,652	11,560	2,310	1,159
Source country not specified	8,339	7,132	9,952	11,455	6,490
Total	35,234,109	27,756,537	27,853,732	27,085,903	25,980,218

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Appendix Table A2.10.1 (continued)

Country	1986	1987	1988	1989	1990
Australia	514,914	1,248,560	1,169,452	1,082,954	916,231
Solomon Islands	–	–	–	–	–
Canada	14,156	15,585	8,763	17,203	7,501
Chile	3,175,651	3,115,182	4,042,505	3,023,073	3,818,579
China	1,161,099	2,072,036	2,748,277	1,853,119	1,748,482
Congo	–	–	–	–	–
Denmark	6,799	2,307	1,485	691	6,877
Fiji	–	–	–	–	65,117
France	538	1,031	–	28,377	1,299
(East) Germany	6,152	2,644	–	657	15,356
Hong Kong	96,933	238,732	300,264	203,420	126,135
Indonesia	–	–	835	705	6,265
Japan	29,626,667	28,378,301	33,738,736	31,460,807	27,342,298
North Korea	–	1,518	–	–	622
South Korea	28,120	54,917	381,005	58,723	66,729
Malaysia	4,178	9,398	1,423	705	–
Taiwan	–	1,307	67,861	199,206	–
Netherlands	1,695	–	–	–	–
New Zealand	1,428,819	1,341,123	798,758	746,418	791,003
Norway	–	–	–	1,674	4,563
Peru	–	–	–	–	–
Philippines	27,020	1,586	–	–	–
Portugal	2,419	1,030	774	–	–
Singapore	22,648	61,123	168,880	753,500	363,899
Slovenia	–	–	–	–	–
South Africa	–	2,830	–	–	–
Spain	14,653	–	32,664	6,066	–
Switzerland	–	–	–	1,989	–
Thailand	98,047	151,184	184,958	593,552	728,456
United Kingdom	6,482	2,429	12,161	20,565	35,370
United States	36,242	72,687	17,649	149,559	81,280
Other countries	631	54,654	1,616	136,681	66,004
Source country not specified	416,688	4,620	3,941	5,392	5,434
Total	36,690,551	36,834,784	43,682,007	40,345,036	36,197,500

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Appendix Table A2.10.1 (continued)

Country	1998	2000	2001	2002	2003
Australia	489,166	289,111	326,819	490,056	135,960
Solomon Islands	703,488	181,735	–	–	883,757
Canada	–	–	805	772	–
Chile	802,654	29,844	47,628	90,395	69,381
China	25,169	7,606	–	11,320	21,784
Congo	–	–	94,308	15,075	99,212
Denmark	–	–	–	–	–
Fiji	151,182	18,050	11,218	–	44,723
France	–	–	–	–	–
(East) Germany	–	–	–	22,271	–
Hong Kong	36,244	32,604	–	–	–
Indonesia	35,130	41,001	10,030	4,539	–
Japan	6,761,395	15,338	9,961	–	35,533
North Korea	–	–	–	–	–
South Korea	317,052	–	765,597	–	555,759
Malaysia	19,526	14,336	7,835	8,722	390,592
Taiwan	49,535	–	127,268	265,818	258,274
Netherlands	–	–	–	–	–
New Zealand	733,381	379,450	418,187	482,184	766,120
Norway	–	–	–	–	–
Peru	–	20,361	58,649	–	–
Philippines	1,998,643	6,948	6,948	2,750	705,032
Portugal	733	–	–	–	–
Singapore	626,022	138,994	45,564	223,318	36,272
Slovenia	45,717	41,394	47,778	91,242	123,340
South Africa	–	134,305	314,929	331,185	48,769
Spain	–	–	–	–	–
Switzerland	–	107,996	22,589	2,801	95,960
Thailand	1,214,547	891,600	119,253	261,205	70,223
United Kingdom	4,193	1,148	–	–	–
United States	33,529	8,282,579	3,615,734	6,193,125	4,088,621
Other countries	412,615	34,183	3,688	81,296	15,412
Source country not specified	5,845	7,354	5,243	5,883	6,110
Total	14,465,766	10,675,937	6,060,031	8,583,957	8,450,834

Note: These data are based on datasets available for PNG fishery imports in the commodity trade statistics database compiled by the United Nations (UNComtrade). Data on PNG fishery imports are not contained in the UNComtrade figures for the years 1991–1997 and 1999.

Source: United Nations (2005).

Appendix Table A3.2.1 Rural population growing the 16 most important vegetables, by province

Province	Corn	%	Pumpkin tips	%	Aibika	%	Amaranthus	%	Highland pitpit	%	Lowland pitpit	%
Western	84,924	78.8	49,653	46.0	107,837	100.0	18,076	16.8	64,299	59.6	68,404	63.4
Gulf	68,019	73.7	74,389	80.6	82,425	89.3	50,108	54.3	39,117	42.4	92,265	100.0
Central	157,058	100.0	151,823	96.7	156,937	99.9	40,127	25.5	38,639	24.6	65,778	41.9
Milne Bay	172,675	91.7	172,328	91.5	188,334	100.0	2,877	1.5	12,371	6.6	151,708	80.6
Oro	106,288	100.0	106,288	100.0	106,288	100.0	105,116	98.9	18,000	16.9	106,288	100.0
Southern Highlands	514,363	97.7	388,568	73.8	59,851	11.4	336,164	63.9	526,398	100.0	59,851	11.4
Enga	257,212	90.7	119,444	42.1	149,433	52.7	55,219	19.5	272,450	96.1	40,359	14.2
Western Highlands	353,501	95.3	321,196	86.6	57,540	15.5	303,525	81.8	370,013	99.7	16,179	4.4
Simbu	242,748	100.0	151,200	62.3	19,157	7.9	200,304	82.5	242,748	100.0	18,460	7.6
Eastern Highlands	361,921	92.0	34,729	8.8	26,731	6.8	272,345	69.2	393,418	100.0	16,629	4.2
Morobe	315,855	88.7	228,403	64.1	320,149	89.9	278,165	78.1	147,655	41.5	320,194	89.9
Madang	308,135	100.0	305,972	99.3	277,341	90.0	220,087	71.4	51,601	16.7	276,505	89.7
East Sepik	301,345	99.2	201,346	66.3	301,876	99.4	293,081	96.5	531	0.2	269,731	88.8
Sandaun	166,919	100.0	136,074	81.5	166,919	100.0	153,802	92.1	49,817	29.8	141,827	85.0
Manus	25,430	72.9	34,899	100.0	34,899	100.0	27,456	78.7	–	–	22,450	64.3
New Ireland	87,466	84.7	93,301	90.4	103,259	100.0	77,368	74.9	–	–	86,594	83.9
East New Britain	166,643	95.6	159,400	91.5	174,230	100.0	21,295	12.2	16,969	9.7	174,230	100.0
West New Britain	100,704	92.1	105,623	96.6	109,299	100.0	65,274	59.7	3,757	3.4	108,569	99.3
Bougainville	166,472	99.6	167,156	100.0	167,156	100.0	–	–	–	–	161,441	96.6
Papua New Guinea	3,957,678	94.4	3,001,792	71.6	2,609,661	62.2	2,520,389	60.1	2,247,783	53.6	2,197,462	52.4

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Appendix Table A3.2.1 (continued)

Province	Common bean	%	Cucumber	%	Rungia	%	Winged bean	%	Tulip	%	Snake bean	%
Western	8,622	8.0	66,570	61.7	6,575	6.1	10,287	9.5	100,183	92.9	18,214	16.9
Gulf	22,244	24.1	54,568	59.1	35,060	38.0	13,196	14.3	72,722	78.8	50,996	55.3
Central	28,527	18.2	129,943	82.7	1,338	0.9	4,247	2.7	56,913	36.2	128,237	81.6
Milne Bay	-	-	39,042	20.7	-	-	41,241	21.9	178,019	94.5	163,969	87.1
Oro	2,668	2.5	102,224	96.2	-	-	19,715	18.5	82,606	77.7	98,208	92.4
Southern Highlands	476,194	90.5	298,393	56.7	523,138	99.4	35,887	6.8	19,903	3.8	-	-
Enga	257,212	90.7	24,343	8.6	243,136	85.8	149,433	52.7	-	-	-	-
Western Highlands	354,868	95.6	31,609	8.5	370,013	99.7	306,895	82.7	58,574	15.8	-	-
Simbu	228,496	94.1	75,732	31.2	214,921	88.5	166,521	68.6	14,945	6.2	-	-
Eastern Highlands	349,316	88.8	190,783	48.5	311,427	79.2	354,002	90.0	153	0.0	153	0.0
Morobe	155,689	43.7	299,032	84.0	26,427	7.4	125,556	35.3	100,830	28.3	114,209	32.1
Madang	59,283	19.2	96,178	31.2	36,301	11.8	108,338	35.2	205,124	66.6	201,899	65.5
East Sepik	53,341	17.6	40,304	13.3	-	-	222,895	73.4	301,876	99.4	240,437	79.2
Sandaun	11,713	7.0	59,417	35.6	-	-	91,806	55.0	154,120	92.3	91,806	55.0
Manus	-	-	1,077	3.1	-	-	-	-	4,506	12.9	25,384	72.7
New Ireland	-	-	37,871	36.7	-	-	-	-	15,405	14.9	101,437	98.2
East New Britain	-	-	144,262	82.8	-	-	4,649	2.7	20,091	11.5	155,429	89.2
West New Britain	-	-	30,249	27.7	-	-	-	-	25,092	23.0	43,103	39.4
Bougainville	-	-	111,029	66.4	-	-	-	-	142,272	85.1	103,658	62.0
Papua New Guinea	2,008,173	47.9	1,832,626	43.7	1,768,336	42.2	1,654,668	39.5	1,553,334	37.0	1,537,139	36.7

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Appendix Table A3.2.1 (continued)

Province	<i>Kumu musong leaves</i>	%	Peanut	%	Oenanthe	%	Cabbage	%	Total rural population
Western	7,510	7.0	12,558	11.6	–	–	–	–	107,837
Gulf	31,913	34.6	–	–	32,051	34.7	3,361	3.6	92,265
Central	40,691	25.9	79,854	50.8	22,823	14.5	22,934	14.6	157,058
Milne Bay	151,231	80.3	4,140	2.2	–	–	–	–	188,334
Oro	82,897	78.0	79,923	75.2	–	–	–	–	106,288
Southern Highlands	9,493	1.8	40,611	7.7	466,942	88.7	339,160	64.4	526,398
Enga	–	–	27,061	9.5	243,136	85.8	139,033	49.0	283,498
Western Highlands	39,994	10.8	256,999	69.3	250,984	67.6	112,970	30.4	371,014
Simbu	40,418	16.7	117,664	48.5	82,312	33.9	223,595	92.1	242,748
Eastern Highlands	–	–	267,633	68.0	201,191	51.1	54,885	14.0	393,418
Morobe	99,423	27.9	147,311	41.4	30,515	8.6	106,201	29.8	356,100
Madang	59,717	19.4	65,498	21.3	4,142	1.3	22,656	7.4	308,135
East Sepik	198,075	65.2	67,599	22.3	–	–	–	–	303,706
Sandaun	134,939	80.8	–	–	–	–	11,713	7.0	166,919
Manus	28,533	81.8	2,980	8.5	–	–	–	–	34,899
New Ireland	49,110	47.6	–	–	–	–	–	–	103,259
East New Britain	148,987	85.5	135,338	77.7	–	–	6,248	3.6	174,230
West New Britain	104,128	95.3	24,970	22.8	–	–	466	0.4	109,299
Bougainville	166,472	99.6	35,935	21.5	–	–	–	–	167,156
Papua New Guinea	1,393,531	33.2	1,366,074	32.6	1,334,096	31.8	1,043,222	24.9	4,192,561

Sources: NSO (2002), MASP.

Appendix Table A3.3.1 Rural population growing the 10 most important fruit, by province

Province	Pawpaw	%	Marita pandanus	%	Pineapple	%	Mango	%	Watermelon	%
Western	86,628	80.3	69,955	64.9	102,960	95.5	28,695	26.6	23,264	21.6
Gulf	74,754	81.0	41,264	44.7	84,589	91.7	51,692	56.0	51,924	56.3
Central	134,225	85.5	31,072	19.8	157,058	100.0	134,052	85.4	130,103	82.8
Milne Bay	186,246	98.9	53,863	28.6	150,155	79.7	186,246	98.9	180,419	95.8
Oro	103,613	97.5	85,744	80.7	106,288	100.0	103,613	97.5	103,627	97.5
Southern Highlands	87,000	16.5	269,253	51.2	97,626	18.5	-	-	11,005	2.1
Enga	40,359	14.2	40,359	14.2	27,061	9.5	-	-	-	-
Western Highlands	297,038	80.1	298,027	80.3	230,216	62.1	14,063	3.8	-	-
Simbu	131,650	54.2	242,748	100.0	14,945	6.2	-	-	-	-
Eastern Highlands	27,108	6.9	363,740	92.5	153	0.0	153	0.0	737	0.2
Morobe	216,274	60.7	335,979	94.3	235,369	66.1	226,540	63.6	83,826	23.5
Madang	282,599	91.7	206,728	67.1	219,550	71.3	275,281	89.3	111,695	36.2
East Sepik	268,105	88.3	264,556	87.1	272,839	89.8	272,839	89.8	32,346	10.7
Sandaun	141,827	85.0	153,941	92.2	92,124	55.2	91,806	55.0	-	-
Manus	25,384	72.7	-	-	19,847	56.9	30,436	87.2	5,537	15.9
New Ireland	103,259	100.0	-	-	90,219	87.4	97,314	94.2	44,527	43.1
East New Britain	160,754	92.3	-	-	135,338	77.7	174,230	100.0	117,313	67.3
West New Britain	108,825	99.6	8,247	7.5	65,840	60.2	109,299	100.0	32,246	29.5
Bougainville	167,156	100.0	-	-	95,744	57.3	166,472	99.6	161,441	96.6
Papua New Guinea	2,642,804	63.0	2,465,476	58.8	2,197,921	52.4	1,962,731	46.8	1,090,010	26.0

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Appendix Table A3.3.1 (continued)

Province	Ton	%	Malay apple	%	Guava	%	Orange	%	Passionfruit	%	Total rural population
Western	-	-	5,431	5.0	14,278	13.2	19,327	17.9	-	-	107,837
Gulf	-	-	45,798	49.6	51,692	56.0	76,705	83.1	-	-	92,265
Central	-	-	84,175	53.6	11,435	7.3	66,740	42.5	51,361	32.7	157,058
Milne Bay	162	0.1	161,892	860	34,244	18.2	32,336	17.2	-	-	188,334
Oro	2,459	2.3	56,588	53.2	29,576	27.8	81,669	76.8	-	-	106,288
Southern Highlands	-	-	-	-	-	-	-	-	118,702	22.5	526,398
Enga	-	-	-	-	-	-	-	-	144,407	50.9	283,498
Western Highlands	-	-	-	-	-	-	17,546	4.7	21,154	5.7	371,014
Simbu	-	-	-	-	-	-	-	-	697	0.3	242,748
Eastern Highlands	-	-	-	-	-	-	-	-	32,296	8.2	393,418
Morobe	91,240	25.6	95,355	26.8	110,750	31.1	111,117	31.2	58,444	16.4	356,100
Madang	134,396	43.6	1,140	0.4	90,301	29.3	30,466	9.9	28,291	9.2	308,135
East Sepik	284,616	93.7	13,769	4.5	11,010	3.6	8,594	2.8	-	-	303,706
Sandaun	141,509	84.8	-	-	-	-	-	-	-	-	166,919
Manus	24,307	69.6	34,899	100.0	9,512	27.3	-	-	-	-	34,899
New Ireland	101,437	98.2	51,040	49.4	-	-	1,815	1.8	-	-	103,259
East New Britain	170,297	97.7	168,007	96.4	135,338	77.7	6,248	3.6	-	-	174,230
West New Britain	90,657	82.9	104,935	96.0	62,926	57.6	11,674	10.7	-	-	109,299
Bougainville	5,031	3.0	162,121	97.0	162,588	97.3	39,251	23.5	-	-	167,156
Papua New Guinea	1,046,111	250	985,150	23.5	723,650	17.3	503,488	12.0	455,352	10.9	4,192,561

Sources: NSO (2002), MASP.

Appendix Table A3.4.1 Rural population growing the 13 most important nuts, by province

Province	Breadfruit	%	Karuka, planted	%	Karuka, wild	%	Galip (<i>Canarium</i> spp.)	%	Polynesian chestnut (<i>aila</i>)	%	Sea almond (<i>talis</i>)	%	Pao (<i>Barringtonia</i> <i>procera</i>)	%
Western	107,280	99.5	762	0.7	762	0.7	5,752	5.3	-	-	6,320	5.9	-	-
Gulf	83,798	90.8	10,751	11.7	-	-	-	-	-	-	-	-	-	-
Central	138,535	88.2	22,410	14.3	28,758	18.3	-	-	19,210	12.2	6,340	4.0	-	-
Milne Bay	187,846	99.7	-	-	14,145	7.5	32,640	17.3	173,664	92.2	162,026	86.0	14,300	7.6
Oro	99,845	93.9	357	0.3	4,255	4.0	80,417	75.7	-	-	5,182	4.9	-	-
Southern Highlands	31,418	6.0	508,009	96.5	302,071	57.4	-	-	-	-	-	-	-	-
Enga	14,699	5.2	275,816	97.3	173,567	61.2	-	-	-	-	-	-	-	-
Western Highlands	57,617	15.5	364,729	98.3	351,336	94.7	-	-	-	-	-	-	-	-
Simbu	16,669	6.9	232,087	95.6	231,228	95.3	-	-	-	-	-	-	-	-
Eastern Highlands	8,789	2.2	373,213	94.9	106,010	26.9	-	-	-	-	-	-	-	-
Morobe	274,660	77.1	135,305	38.0	62,517	17.6	112,036	31.5	4,627	1.3	7,488	2.1	1,504	0.4
Madang	285,275	92.6	49,148	16.0	43,945	14.3	228,497	74.2	46,788	15.2	21,602	7.0	-	-
East Sepik	297,779	98.0	-	-	-	-	190,598	62.8	9,590	3.2	5,882	1.9	9,725	3.2
Sandaun	158,610	95.0	25,866	15.5	24,612	14.7	118,730	71.1	-	-	-	-	-	-
Manus	34,899	100.0	-	-	-	-	34,899	100.0	22,019	63.1	18,665	53.5	34,899	100.0
New Ireland	101,751	98.5	-	-	-	-	97,622	94.5	90,615	87.8	103,103	99.8	101,751	98.5
East New Britain	166,293	95.4	-	-	-	-	161,914	92.9	160,501	92.1	125,646	72.1	161,237	92.5
West New Britain	106,659	97.6	-	-	-	-	87,951	80.5	102,241	93.5	73,376	67.1	45,101	41.3
Bougainville	163,119	97.6	-	-	-	-	163,119	97.6	7,494	4.5	10,361	6.2	163,119	97.6
Papua New Guinea	2,335,541	55.7	1,998,454	47.7	1,343,205	32.0	1,314,173	31.3	636,749	15.2	545,993	13.0	531,634	12.7

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Appendix Table A3.4.1 (continued)

Province	Okari (<i>T. kaernbachii</i>)	%	Okari (<i>T. impediens</i>)	%	Sis (<i>solomon</i>)	%	Castanopsis	%	Dausia	%	Tulip	%	Total rural population
Western	43,919	40.7	-	-	-	-	762	0.7	-	-	-	-	107,837
Gulf	81,624	88.5	-	-	4,002	4.3	-	-	-	-	699	0.8	92,265
Central	118,215	75.3	-	-	1,319	0.8	510	0.3	6,340	4.0	10,990	7.0	157,058
Milne Bay	15,066	8.0	-	-	95,860	50.9	9,237	4.9	83,723	44.5	43,267	23.0	188,334
Oro	101,935	95.9	-	-	11,977	11.3	-	-	-	-	191	0.2	106,288
Southern Highlands	22,850	4.3	-	-	37,425	7.1	226,124	43.0	-	-	11,347	2.2	526,398
Enga	-	-	-	-	15,053	5.3	29,666	10.5	-	-	-	-	283,498
Western Highlands	1,577	0.4	-	-	2,797	0.8	1,523	0.4	-	-	-	-	371,014
Simbu	17,116	7.1	-	-	17,116	7.1	-	-	-	-	-	-	242,748
Eastern Highlands	-	-	-	-	3,769	1.0	-	-	-	-	-	-	393,418
Morobe	65,583	18.4	-	-	17,181	4.8	-	-	-	-	677	0.2	356,100
Madang	-	-	89,324	29.0	40,140	13.0	19,966	6.5	-	-	1,449	0.5	308,135
East Sepik	-	-	174,472	57.4	9,112	3.0	-	-	-	-	-	-	303,706
Sandaun	-	-	88,334	52.9	22,033	13.2	13,426	8.0	-	-	-	-	166,919
Manus	30,907	88.6	-	-	-	-	-	-	-	-	-	-	34,899
New Ireland	-	-	-	-	-	-	-	-	-	-	-	-	103,259
East New Britain	-	-	-	-	14,872	8.5	-	-	-	-	-	-	174,230
West New Britain	2,817	2.6	-	-	31,019	28.4	-	-	-	-	-	-	109,299
Bougainville	-	-	-	-	-	-	-	-	-	-	-	-	167,156
Papua New Guinea	501,609	12.0	352,130	8.4	323,675	7.7	301,214	7.2	90,063	2.1	68,619	1.6	4,192,561

Sources: NSO (2002), MASP.

Appendix Table A3.5.1 Rural population growing the six most important stimulants, by province

Province	Tobacco	%	Betel nut	%	Lowland betel pepper	%	Highland betel pepper	%	Highland betel nut ^(a)	%	Kava	%	Total rural population
Western	102,400	95.0	60,971	56.5	60,971	56.5	–	–	–	–	31,529	29.2	107,837
Gulf	86,366	93.6	75,106	81.4	75,106	81.4	17,154	18.6	17,154	18.6	–	–	92,265
Central	152,277	97.0	105,687	67.3	105,687	67.3	343	0.2	24,504	15.6	–	–	157,058
Milne Bay	188,334	100.0	187,636	99.6	187,636	99.6	15,991	8.5	15,991	8.5	–	–	188,334
Oro	106,288	100.0	106,288	100.0	106,288	100.0	–	–	2,654	2.5	–	–	106,288
Southern Highlands	526,398	100.0	3,300	0.6	9,493	1.8	323,385	61.4	52,831	10.0	–	–	526,398
Enga	283,498	100.0	11,045	3.9	11,045	3.9	93,836	33.1	–	–	–	–	283,498
Western Highlands	371,014	100.0	41,028	11.1	14,156	3.8	60,115	16.2	17,546	4.7	–	–	371,014
Simbu	242,748	100.0	14,244	5.9	14,244	5.9	194,807	80.3	39,655	16.3	–	–	242,748
Eastern Highlands	393,418	100.0	153	0.0	153	0.0	388,653	98.8	293,730	74.7	–	–	393,418
Morobe	355,746	99.9	267,446	75.1	267,446	75.1	151,153	42.4	151,911	42.7	–	–	356,100
Madang	308,135	100.0	275,702	89.5	273,145	88.6	27,133	8.8	26,782	8.7	–	–	308,135
East Sepik	301,876	99.4	301,876	99.4	301,876	99.4	–	–	–	–	–	–	303,706
Sandaun	166,919	100.0	141,509	84.8	141,509	84.8	–	–	–	–	–	–	166,919
Manus	24,353	69.8	34,899	100.0	34,899	100.0	–	–	–	–	1,903	5.5	34,899
New Ireland	99,790	96.6	95,499	92.5	95,499	92.5	–	–	–	–	–	–	103,259
East New Britain	161,247	92.5	174,230	100.0	174,230	100.0	–	–	6,248	3.6	–	–	174,230
West New Britain	100,704	92.1	109,299	100.0	109,299	100.0	–	–	466	0.4	–	–	109,299
Bougainville	162,588	97.3	166,472	99.6	166,472	99.6	–	–	–	–	–	–	167,156
Papua New Guinea	4,134,099	98.6	2,172,390	51.8	2,149,154	51.3	1,272,570	30.4	649,472	15.5	33,432	0.8	4,192,561

^(a) Data include highland betel nut (*Areca macrocalyx*) and other wild betel nut species.

Sources: NSO (2002), MASP.

Appendix Table A3.8.1 Rural population using fallows of given periods, by province

Province	1–4 years	%	5–15 years	%	More than 15 years	%	No long fallow	%	Total rural population
Western	5,592	5.2	25,884	24.0	76,360	70.8	0	0.0	107,837
Gulf	0	0.0	13,452	14.6	78,813	85.4	0	0.0	92,265
Central	16,650	10.6	85,674	54.5	54,734	34.8	0	0.0	157,058
Milne Bay	2,805	1.5	57,541	30.6	127,988	68.0	0	0.0	188,334
Oro	0	0.0	44,096	41.5	62,192	58.5	0	0.0	106,288
Southern Highlands	149,448	28.4	181,645	34.5	128,763	24.5	66,542	12.6	526,398
Enga	0	0.0	15,293	5.4	77,947	27.5	190,258	67.1	283,498
Western Highlands	0	0.0	345,480	93.1	2,862	0.8	22,672	6.1	371,014
Simbu	0	0.0	211,186	87.0	31,562	13.0	0	0.0	242,748
Eastern Highlands	148,117	37.6	48,453	12.3	180,855	46.0	15,993	4.1	393,418
Morobe	26,326	7.4	260,394	73.1	68,333	19.2	1,048	0.3	356,100
Madang	14,977	4.9	197,169	64.0	95,990	31.2	0	0.0	308,135
East Sepik	13,491	4.4	117,229	38.6	171,426	56.4	1,561	0.5	303,706
Sandaun	0	0.0	11,783	7.1	155,136	92.9	0	0.0	166,919
Manus	1,008	2.9	4,329	12.4	24,278	69.6	5,284	15.1	34,899
New Ireland	3,341	3.2	39,536	38.3	60,382	58.5	0	0.0	103,259
East New Britain	13,622	7.8	149,542	85.8	11,066	6.4	0	0.0	174,230
West New Britain	34,832	31.9	44,202	40.4	30,265	27.7	0	0.0	109,299
Bougainville	30,823	18.4	133,572	79.9	0	0.0	2,761	1.7	167,156
Papua New Guinea	461,031	11.0	1,986,460	47.4	1,438,952	34.3	306,118	7.3	4,192,561

Sources: NSO (2002); MASP.

Appendix Table A3.8.2 Rural population clearing different fallow vegetation, by province

Province	Short grass	%	Tall grass	%	Grass and woody regrowth	%	Low woody regrowth	%	Tall woody regrowth ^[a]	%	Savanna	%	Fallow not defined ^[b]	%	Total rural population
Western	12,349	11.5	3,210	3.0	6,780	6.3	6,876	6.4	66,335	61.5	12,287	11.4	0	0.0	107,837
Gulf	3,254	3.5	0	0.0	0	0.0	7,561	8.2	81,450	88.3	0	0.0	0	0.0	92,265
Central	46,764	29.8	8,230	5.2	7,193	4.6	37,494	23.9	53,983	34.4	3,394	2.2	0	0.0	157,058
Milne Bay	3,944	2.1	0	0.0	5,933	3.2	44,339	23.5	134,118	71.2	0	0.0	0	0.0	188,334
Oro	14,277	13.4	0	0.0	0	0.0	50,220	47.2	41,791	39.3	0	0.0	0	0.0	106,288
Southern Highlands	107,588	20.4	158,986	30.2	183,560	34.9	33,765	6.4	42,499	8.1	0	0.0	0	0.0	526,398
Enga	0	0.0	111,532	39.3	80,057	28.2	71,764	25.3	20,144	7.1	0	0.0	0	0.0	283,498
Western Highlands	1,474	0.4	262,116	70.6	48,697	13.1	41,613	11.2	17,114	4.6	0	0.0	0	0.0	371,014
Simbu	0	0.0	127,365	52.5	90,699	37.4	7,715	3.2	16,969	7.0	0	0.0	0	0.0	242,748
Eastern Highlands	162,485	41.3	27,044	6.9	117,861	30.0	58,368	14.8	27,660	7.0	0	0.0	0	0.0	393,418
Morobe	35,744	10.0	6,007	1.7	54,492	15.3	80,129	22.5	179,728	50.5	0	0.0	0	0.0	356,100
Madang	42,208	13.7	543	0.2	20,630	6.7	78,325	25.4	166,429	54.0	0	0.0	0	0.0	308,135
East Sepik	17,927	5.9	27,603	9.1	38,292	12.6	55,832	18.4	162,825	53.6	0	0.0	1,227	0.4	303,706
Sandaun	0	0.0	0	0.0	9,345	5.6	0	0.0	157,574	94.4	0	0.0	0	0.0	166,919
Manus	0	0.0	0	0.0	0	0.0	4,871	14.0	24,977	71.6	0	0.0	5,051	14.5	34,899
New Ireland	0	0.0	0	0.0	1,000	1.0	39,185	37.9	63,073	61.1	0	0.0	0	0.0	103,259
East New Britain	0	0.0	66,372	38.1	0	0.0	10,389	6.0	97,469	55.9	0	0.0	0	0.0	174,230
West New Britain	0	0.0	0	0.0	1,005	0.9	35,226	32.2	73,067	66.9	0	0.0	0	0.0	109,299
Bougainville	0	0.0	0	0.0	0	0.0	31,331	18.7	133,452	79.8	0	0.0	2,373	1.4	167,156
Papua New Guinea	448,015	10.7	799,006	19.1	665,545	15.9	695,003	16.6	1,560,659	37.2	15,681	0.4	8,651	0.2	4,192,561

[a] 'Tall woody regrowth' is the technical term for tall secondary forest.

[b] Agricultural systems with 'fallow not defined' occur in swamps at the mouth of the Sepik River and on some atolls.

Sources: NSO (2002), MASP.

Appendix Table A3.9.1 Rural population using soil retention barriers, by province

Province	Importance of soil retention barriers						Total rural population	
	Minor	%	Important	%	Very important	%	Not used	%
Western	4,325	4.0	0	0.0	0	0.0	103,512	96.0
Gulf	0	0.0	0	0.0	0	0.0	92,265	100.0
Central	31,025	19.8	0	0.0	869	0.6	125,164	79.7
Milne Bay	70,819	37.6	47,649	25.3	18,094	9.6	51,771	27.5
Oro	0	0.0	0	0.0	0	0.0	106,288	100.0
Southern Highlands	25,839	4.9	0	0.0	0	0.0	500,559	95.1
Enga	31,542	11.1	0	0.0	0	0.0	251,956	88.9
Western Highlands	89,057	24.0	16,374	4.4	0	0.0	265,583	71.6
Simbu	125,614	51.7	58,912	24.3	40,565	16.7	17,658	7.3
Eastern Highlands	98,246	25.0	10,931	2.8	5,376	1.4	278,865	70.9
Morobe	84,365	23.7	31,101	8.7	26,519	7.4	214,115	60.1
Madang	127,042	41.2	3,596	1.2	0	0.0	177,497	57.6
East Sepik	131,622	43.3	65,879	21.7	0	0.0	106,204	35.0
Sandaun	88,751	53.2	0	0.0	0	0.0	78,168	46.8
Manus	0	0.0	0	0.0	0	0.0	34,899	100.0
New Ireland	1,000	1.0	0	0.0	0	0.0	102,259	99.0
East New Britain	0	0.0	3,617	2.1	0	0.0	170,613	97.9
West New Britain	0	0.0	773	0.7	0	0.0	108,526	99.3
Bougainville	0	0.0	0	0.0	0	0.0	167,156	100.0
Papua New Guinea	909,247	21.7	238,832	5.7	91,422	2.2	2,953,059	70.4

Sources: NSO (2002); MASP.

Appendix Table A3.10.1 Rural population planting trees in fallows, by province

Province	Importance of planting trees in fallows						Total rural population	
	Minor	%	Important	%	Very important	%	Not used	%
Western	0	0.0	0	0.0	0	0.0	107,837	100.0
Gulf	0	0.0	0	0.0	0	0.0	92,265	100.0
Central	0	0.0	0	0.0	0	0.0	157,058	100.0
Milne Bay	0	0.0	764	0.4	0	0.0	187,570	99.6
Oro	0	0.0	0	0.0	0	0.0	106,288	100.0
Southern Highlands	316,948	60.2	0	0.0	0	0.0	209,450	39.8
Enga	203,280	71.7	0	0.0	0	0.0	80,218	28.3
Western Highlands	348,915	94.0	0	0.0	1,486	0.4	20,613	5.6
Simbu	127,658	52.6	85,036	35.0	9,394	3.9	20,660	8.5
Eastern Highlands	333,667	84.8	23,958	6.1	2,683	0.7	33,110	8.4
Morobe	4,023	1.1	7,355	2.1	0	0.0	344,722	96.8
Madang	12,593	4.1	0	0.0	16,555	5.4	278,987	90.5
East Sepik	0	0.0	0	0.0	0	0.0	303,706	100.0
Sandaun	6,341	3.8	4,514	2.7	0	0.0	156,064	93.5
Manus	0	0.0	0	0.0	0	0.0	34,899	100.0
New Ireland	0	0.0	0	0.0	0	0.0	103,259	100.0
East New Britain	0	0.0	0	0.0	0	0.0	174,230	100.0
West New Britain	0	0.0	0	0.0	0	0.0	109,299	100.0
Bougainville	0	0.0	0	0.0	0	0.0	167,156	100.0
Papua New Guinea	1,353,425	32.3	121,628	2.9	30,117	0.7	2,687,391	64.1
								4,192,561

Sources: NSO (2002); MASP.

Appendix Table A3.10.2 Rural population planting legumes (peanut and winged bean) in rotations with root crops, by province

Province	Importance of planting legumes in rotations with root crops						Total rural population		
	Minor	%	Important	%	Very important	%		Not used	%
Western	3,149	2.9	0	0.0	0	0.0	104,688	97.1	107,837
Gulf	0	0.0	0	0.0	0	0.0	92,265	100.0	92,265
Central	5,860	3.7	0	0.0	1,589	1.0	149,609	95.3	157,058
Milne Bay	0	0.0	0	0.0	0	0.0	188,334	100.0	188,334
Oro	0	0.0	0	0.0	0	0.0	106,288	100.0	106,288
Southern Highlands	0	0.0	0	0.0	0	0.0	526,398	100.0	526,398
Enga	0	0.0	0	0.0	0	0.0	283,498	100.0	283,498
Western Highlands	48,203	13.0	245,138	66.1	0	0.0	77,674	20.9	371,014
Simbu	114,067	47.0	64,477	26.6	0	0.0	64,204	26.4	242,748
Eastern Highlands	108,580	27.6	47,545	12.1	166,830	42.4	70,463	17.9	393,418
Morobe	4,619	1.3	27,286	7.7	4,023	1.1	320,173	89.9	356,100
Madang	15,029	4.9	1,715	0.6	0	0.0	291,391	94.6	308,135
East Sepik	8,093	2.7	0	0.0	0	0.0	295,613	97.3	303,706
Sandaun	0	0.0	0	0.0	0	0.0	166,919	100.0	166,919
Manus	0	0.0	896	2.6	0	0.0	34,003	97.4	34,899
New Ireland	4,231	4.1	0	0.0	0	0.0	99,028	95.9	103,259
East New Britain	22,893	13.1	107,215	61.5	0	0.0	44,122	25.3	174,230
West New Britain	19,714	18.0	0	0.0	0	0.0	89,585	82.0	109,299
Bougainville	0	0.0	0	0.0	0	0.0	167,156	100.0	167,156
Papua New Guinea	354,438	8.5	494,271	11.8	172,442	4.1	3,171,410	75.6	4,192,561

Sources: NSO (2002); MASP.

Appendix Table A3.11.1 Rural population using small mounds in food production systems, by province

Province	Importance of small mounds in food production systems						Total rural population		
	Minor	%	Important	%	Very important	%	Not used	%	
Western	19,508	18.1	8,761	8.1	10,333	9.6	69,235	64.2	107,837
Gulf	60,509	65.6	0	0.0	0	0.0	31,756	34.4	92,265
Central	8,718	5.6	105,102	66.9	40,516	25.8	2,721	1.7	157,058
Milne Bay	28,138	14.9	143,274	76.1	583	0.3	16,339	8.7	188,334
Oro	3,786	3.6	30,405	28.6	69,445	65.3	2,652	2.5	106,288
Southern Highlands	39,106	7.4	0	0.0	0	0.0	487,292	92.6	526,398
Enga	84,628	29.9	0	0.0	0	0.0	198,870	70.1	283,498
Western Highlands	16,505	4.4	1,535	0.4	40,793	11.0	312,181	84.1	371,014
Simbu	4,394	1.8	15,238	6.3	222,088	91.5	1,028	0.4	242,748
Eastern Highlands	10,208	2.6	44,051	11.2	332,901	84.6	6,258	1.6	393,418
Morobe	74,297	20.9	129,230	36.3	66,489	18.7	86,084	24.2	356,100
Madang	189,224	61.4	49,027	15.9	8,730	2.8	61,154	19.8	308,135
East Sepik	197,011	64.9	0	0.0	0	0.0	106,695	35.1	303,706
Sandaun	124,352	74.5	0	0.0	0	0.0	42,567	25.5	166,919
Manus	7,396	21.2	20,757	59.5	1,779	5.1	4,967	14.2	34,899
New Ireland	42,943	41.6	15,400	14.9	24,211	23.4	20,705	20.1	103,259
East New Britain	134,140	77.0	21,904	12.6	8,466	4.9	9,720	5.6	174,230
West New Britain	46,624	42.7	51,194	46.8	0	0.0	11,481	10.5	109,299
Bougainville	23,701	14.2	25,782	15.4	112,600	67.4	5,074	3.0	167,156
Papua New Guinea	1,115,188	26.6	661,661	15.8	938,933	22.4	1,476,779	35.2	4,192,561

Sources: NSO (2002); MASP.

Appendix Table A3.11.2 Rural population using medium-sized mounds in food production systems, by province

Province	Importance of medium-sized mounds in food production systems						Total rural population		
	Minor	%	Important	%	Very important	%	Not used	%	
Western	12,755	11.8	0	0.0	0	0.0	95,082	88.2	107,837
Gulf	0	0.0	0	0.0	0	0.0	92,265	100.0	92,265
Central	0	0.0	0	0.0	399	0.3	156,659	99.7	157,058
Milne Bay	0	0.0	0	0.0	0	0.0	188,334	100.0	188,334
Oro	0	0.0	0	0.0	0	0.0	106,288	100.0	106,288
Southern Highlands	125,459	23.8	30,983	5.9	324,377	61.6	45,579	8.7	526,398
Enga	1,059	0.4	32,190	11.4	103,503	36.5	146,746	51.8	283,498
Western Highlands	19,078	5.1	46,668	12.6	2,419	0.7	302,849	81.6	371,014
Simbu	0	0.0	0	0.0	0	0.0	242,748	100.0	242,748
Eastern Highlands	0	0.0	0	0.0	0	0.0	393,418	100.0	393,418
Morobe	22,811	6.4	4,837	1.4	3,144	0.9	325,309	91.4	356,100
Madang	0	0.0	0	0.0	672	0.2	307,463	99.8	308,135
East Sepik	0	0.0	8,093	2.7	0	0.0	295,613	97.3	303,706
Sandaun	0	0.0	0	0.0	0	0.0	166,919	100.0	166,919
Manus	0	0.0	0	0.0	0	0.0	34,899	100.0	34,899
New Ireland	0	0.0	0	0.0	0	0.0	103,259	100.0	103,259
East New Britain	0	0.0	0	0.0	0	0.0	174,230	100.0	174,230
West New Britain	0	0.0	0	0.0	0	0.0	109,299	100.0	109,299
Bougainville	0	0.0	0	0.0	0	0.0	167,156	100.0	167,156
Papua New Guinea	181,162	4.3	122,770	2.9	434,514	10.4	3,454,115	82.4	4,192,561

Sources: NSO (2002); MASP.

Appendix Table A3.11.3 Rural population using large mounds in food production systems, by province

Province	Importance of large mounds in food production systems						Total rural population		
	Minor	%	Important	%	Very important	%		Not used	%
Western	0	0.0	0	0.0	0	0.0	107,837	100.0	107,837
Gulf	0	0.0	0	0.0	0	0.0	92,265	100.0	92,265
Central	0	0.0	0	0.0	0	0.0	157,058	100.0	157,058
Milne Bay	0	0.0	0	0.0	0	0.0	188,334	100.0	188,334
Oro	0	0.0	0	0.0	0	0.0	106,288	100.0	106,288
Southern Highlands	55,670	10.6	0	0.0	0	0.0	470,728	89.4	526,398
Enga	0	0.0	19,566	69	129,767	45.8	134,165	47.3	283,498
Western Highlands	0	0.0	47,316	12.8	19,429	5.2	304,269	82.0	371,014
Simbu	0	0.0	0	0.0	0	0.0	242,748	100.0	242,748
Eastern Highlands	0	0.0	0	0.0	0	0.0	393,418	100.0	393,418
Morobe	0	0.0	0	0.0	0	0.0	356,100	100.0	356,100
Madang	0	0.0	0	0.0	0	0.0	308,135	100.0	308,135
East Sepik	0	0.0	0	0.0	0	0.0	303,706	100.0	303,706
Sandaun	0	0.0	0	0.0	0	0.0	166,919	100.0	166,919
Manus	0	0.0	0	0.0	0	0.0	34,899	100.0	34,899
New Ireland	0	0.0	0	0.0	0	0.0	103,259	100.0	103,259
East New Britain	0	0.0	0	0.0	0	0.0	174,230	100.0	174,230
West New Britain	0	0.0	0	0.0	0	0.0	109,299	100.0	109,299
Bougainville	0	0.0	0	0.0	0	0.0	167,156	100.0	167,156
Papua New Guinea	55,670	1.3	66,882	1.6	149,196	3.6	3,920,813	93.5	4,192,561

Sources: NSO (2002); MASP.

Appendix Table A3.11.4 Rural population using square beds in food production systems, by province

Province	Importance of square beds in food production systems						Total rural population	
	Minor	%	Important	%	Very important	%	Not used	%
Western	5,613	5.2	0	0.0	0	0.0	102,224	94.8
Gulf	0	0.0	0	0.0	0	0.0	92,265	100.0
Central	0	0.0	0	0.0	0	0.0	157,058	100.0
Milne Bay	0	0.0	0	0.0	0	0.0	188,334	100.0
Oro	0	0.0	0	0.0	0	0.0	106,288	100.0
Southern Highlands	122,227	23.2	18,152	3.4	0	0.0	386,019	73.3
Enga	0	0.0	0	0.0	0	0.0	283,498	100.0
Western Highlands	46,668	12.6	0	0.0	245,138	66.1	79,209	21.3
Simbu	114,325	47.1	0	0.0	64,477	26.6	63,945	26.3
Eastern Highlands	0	0.0	0	0.0	0	0.0	393,418	100.0
Morobe	0	0.0	0	0.0	0	0.0	356,100	100.0
Madang	0	0.0	0	0.0	0	0.0	308,135	100.0
East Sepik	0	0.0	0	0.0	0	0.0	303,706	100.0
Sandaun	0	0.0	0	0.0	0	0.0	166,919	100.0
Manus	0	0.0	0	0.0	0	0.0	34,899	100.0
New Ireland	0	0.0	0	0.0	0	0.0	103,259	100.0
East New Britain	0	0.0	0	0.0	0	0.0	174,230	100.0
West New Britain	0	0.0	0	0.0	0	0.0	109,299	100.0
Bougainville	0	0.0	0	0.0	0	0.0	167,156	100.0
Papua New Guinea	288,832	6.9	18,152	0.4	309,615	7.4	3,575,962	85.3

Sources: NSO (2002); MASP.

Appendix Table A3.11.5 Rural population using long beds in food production systems, by province

Province	Importance of long beds in food production systems						Total rural population		
	Minor	%	Important	%	Very important	%	Not used	%	
Western	8,825	8.2	0	0.0	16,025	14.9	82,987	77.0	107,837
Gulf	0	0.0	0	0.0	0	0.0	92,265	100.0	92,265
Central	0	0.0	0	0.0	1,589	1.0	155,469	99.0	157,058
Milne Bay	0	0.0	0	0.0	0	0.0	188,334	100.0	188,334
Oro	0	0.0	0	0.0	0	0.0	106,288	100.0	106,288
Southern Highlands	68,709	13.1	140,379	26.7	0	0.0	317,311	60.3	526,398
Enga	39,154	13.8	0	0.0	0	0.0	244,344	86.2	283,498
Western Highlands	264,215	71.2	0	0.0	0	0.0	106,799	28.8	371,014
Simbu	64,477	26.6	0	0.0	839	0.3	177,432	73.1	242,748
Eastern Highlands	93,694	23.8	21,855	5.6	237,465	60.4	40,403	10.3	393,418
Morobe	0	0.0	0	0.0	2,850	0.8	353,250	99.2	356,100
Madang	13,285	4.3	0	0.0	1,414	0.5	293,436	95.2	308,135
East Sepik	0	0.0	0	0.0	0	0.0	303,706	100.0	303,706
Sandaun	0	0.0	0	0.0	0	0.0	166,919	100.0	166,919
Manus	0	0.0	0	0.0	0	0.0	34,899	100.0	34,899
New Ireland	1,000	1.0	0	0.0	0	0.0	102,259	99.0	103,259
East New Britain	0	0.0	0	0.0	0	0.0	174,230	100.0	174,230
West New Britain	3,206	2.9	0	0.0	0	0.0	106,093	97.1	109,299
Bougainville	0	0.0	0	0.0	0	0.0	167,156	100.0	167,156
Papua New Guinea	556,566	13.3	162,234	3.9	260,182	6.2	3,213,579	76.6	4,192,561

Sources: NSO (2002); MASP.

Appendix Table A3.11.6 Rural population using green manure (compost) in food production systems, by province

Province	Importance of green manure (compost) in food production systems						Total rural population		
	Minor	%	Important	%	Very important	%		Not used	%
Western	0	0.0	0	0.0	0	0.0	107,837	100.0	107,837
Gulf	2,654	2.9	0	0.0	0	0.0	89,611	97.1	92,265
Central	0	0.0	0	0.0	0	0.0	157,058	100.0	157,058
Milne Bay	0	0.0	0	0.0	0	0.0	188,334	100.0	188,334
Oro	0	0.0	0	0.0	0	0.0	106,288	100.0	106,288
Southern Highlands	30,983	5.9	172,342	32.7	268,069	50.9	55,004	10.4	526,398
Enga	0	0.0	28,950	10.2	223,885	79.0	30,664	10.8	283,498
Western Highlands	0	0.0	0	0.0	68,165	18.4	302,849	81.6	371,014
Simbu	0	0.0	0	0.0	0	0.0	242,748	100.0	242,748
Eastern Highlands	0	0.0	0	0.0	0	0.0	393,418	100.0	393,418
Morobe	48,883	13.7	5,994	1.7	0	0.0	301,223	84.6	356,100
Madang	7,021	2.3	672	0.2	0	0.0	300,443	97.5	308,135
East Sepik	0	0.0	13,155	4.3	0	0.0	290,551	95.7	303,706
Sandaun	7,261	4.4	0	0.0	0	0.0	159,658	95.6	166,919
Manus	0	0.0	0	0.0	0	0.0	34,899	100.0	34,899
New Ireland	0	0.0	0	0.0	0	0.0	103,259	100.0	103,259
East New Britain	0	0.0	0	0.0	0	0.0	174,230	100.0	174,230
West New Britain	0	0.0	0	0.0	0	0.0	109,299	100.0	109,299
Bougainville	0	0.0	0	0.0	0	0.0	167,156	100.0	167,156
Papua New Guinea	96,802	2.3	221,112	5.3	560,119	13.4	3,314,528	79.1	4,192,561

Sources: NSO (2002); MASP.

Appendix Table A4.1.1 Exchange rate for one PNG kina against the Australian dollar and United States dollar, 1975–2007

Year	A\$	US\$
1975	1.0000	1.2571
1976	1.1335	1.2314
1977	1.1565	1.3200
1978	1.2629	1.4530
1979	1.3105	1.4488
1980	1.3154	1.5531
1981	1.3029	1.4695
1982	1.3636	1.3371
1983	1.2734	1.1422
1984	1.2785	1.0599
1985	1.4519	0.9877
1986	1.5669	1.0404
1987	1.5787	1.1384
1988	1.4181	1.2100
1989	1.4659	1.1633
1990	1.3616	1.0511
1991	1.3818	1.0498
1992	1.4708	1.0127
1993	1.5077	1.0190
1994	1.0927	0.8485
1995	1.0176	0.7545
1996	0.9653	0.7553
1997	0.9365	0.6971
1998	0.7708	0.4856
1999	0.6086	0.3922
2000	0.6256	0.3623
2001	0.5476	0.2976
2002	0.4740	0.2573
2003	0.4326	0.2816
2004	0.4222	0.3101
2005	0.4229	0.3224
2006	0.4342	0.3272
2007	0.4027	0.3375

Source: Bank of Papua New Guinea Quarterly Economic Bulletins.

Appendix Table A4.3.1 Average price per year of selected items in Port Moresby and Madang, 1971–2005^[a]

Year	Sweet potato		Aibika		Rice		Kerosene	
	Port Moresby	Madang	Port Moresby	Madang	Port Moresby	Madang	Port Moresby	Madang
1971	13.0	6.6	18.8	9.5	22.3	22.1	8.8	7.7
1972	11.5	8.1	25.7	12.5	22.2	22.0	8.9	7.8
1973	14.8	7.2	27.7	10.1	26.1	25.3	8.6	7.9
1974	17.5	10.5	26.9	10.2	38.7	38.5	11.5	10.8
1975	22.9	11.3	26.3	12.2	40.2	41.3	13.3	13.2
1976	25.3	12.5	31.0	13.6	40.5	39.7	15.1	14.9
1977	22.0	13.2	33.5	13.2	38.2	38.5	16.9	16.1
1978	27.0	12.2	41.8	13.1	37.3	36.7	17.3	16.6
1979	30.3	13.9	46.6	17.4	39.0	37.6	17.5	17.5
1980	45.4	13.5	53.0	20.0	46.2	46.1	26.4	26.4
1981	50.4	15.9	45.6	18.1	49.1	48.3	29.5	29.5
1982	48.2	20.7	46.3	20.2	51.2	50.2	30.6	30.6
1983	62.1	18.6	47.3	22.6	46.2	45.7	32.2	32.2
1984	51.5	16.5	49.1	24.6	53.0	52.7	31.9	31.8
1985	47.6	20.4	60.9	19.6	57.9	57.9	34.6	34.8
1986	52.2	19.5	73.9	22.2	57.2	56.9	33.5	33.6
1987	57.8	24.9	63.8	30.3	52.8	53.3	30.7	32.9
1988	69.0	34.7	59.3	28.5	57.7	60.0	31.6	33.5
1989	57.3	35.0	67.5	23.0	61.5	64.1	32.4	32.4
1990	61.3	33.0	80.6	23.6	68.9	70.7	39.4	43.0
1991	58.0	32.3	78.0	23.3	71.8	73.0	44.4	44.9
1992	71.1	31.2	92.3	33.0	70.5	73.7	45.2	45.1
1993	71.9	35.0	88.1	35.4	69.8	72.2	45.4	45.2
1994	66.3	28.5	95.6	32.7	70.1	71.6	43.7	44.1
1995	73.2	32.2	80.7	28.5	84.4	87.7	48.2	47.8
1996	71.3	33.2	92.6	31.6	92.4	95.3	54.1	53.1
1997 ^[b]	95.2	–	138.5	–	91.8	93.8	62.7	63.0
1998	90.3	39.6	95.3	36.7	137.6	134.3	60.5	59.5
1999	93.0	40.9	94.2	36.1	174.6	171.4	69.1	69.8
2000	107.2	36.0	140.6	46.9	180.8	188.6	98.3	98.0
2001	128.9	90.4	120.9	50.0	223.3	221.6	112.9	112.6
2002	129.7	112.3	147.3	105.1	275.8	276.3	112.1	112.5
2003	103.7	57.6	173.9	97.5	286.3	283.6	149.3	151.7
2004	125.6	45.1	184.0	91.8	279.5	269.8	165.8	168.7
2005	132.2	54.7	220.4	79.4	282.2	275.5	175.6	176.4

^[a] Prices are toea per kilogram for sweet potato, aibika and rice, and toea per litre for kerosene.

^[b] The gap in prices of fresh foods in 1997 occurred because there was very little or no fresh produce in many markets during the drought, hence it was not possible to record prices at that time.

Source: PNG National Statistical Office.

Appendix Table A5.1.1 Estimated annual cash income (kina) of the rural population from the six most important agricultural activities, by province, 1990–1995

Province	Arabica coffee	Fresh food	Cocoa	Betel nut	Copra	Oil palm	All agricultural activities ^(a)
Western	0	661,535	0	147,684	0	0	1,894,488
Gulf	161,224	462,605	5,550	1,387,117	0	0	2,472,386
Central	26,989	1,416,696	0	2,218,875	78,636	0	4,933,053
Milne Bay	72,804	1,231,478	24,754	1,260,083	387,539	106,444	4,506,198
Oro	69,599	1,375,756	285,706	422,873	0	3,335,491	6,130,723
Southern Highlands	2,373,297	2,363,636	0	0	0	0	6,755,959
Enga	3,136,665	2,949,277	0	0	0	0	7,638,569
Western Highlands	24,370,651	6,027,311	0	0	0	0	33,356,490
Simbu	9,808,452	2,421,425	0	0	0	0	12,897,846
Eastern Highlands	24,348,815	7,343,498	0	693,819	0	0	38,119,355
Morobe	1,790,880	5,664,761	232,776	5,636,345	207,066	0	14,423,894
Madang	778,406	2,525,167	2,166,737	2,845,524	3,796,524	0	13,101,744
East Sepik	0	1,522,015	2,788,349	587,425	12,561	0	8,138,594
Sandaun	0	745,184	417,974	257,470	0	0	2,253,345
Manus	0	619,750	90,359	519,716	632,225	0	2,306,037
New Ireland	0	1,336,543	1,067,613	795,538	3,659,143	104,942	7,605,285
East New Britain	0	3,139,511	9,793,408	2,680,497	3,091,375	0	19,999,025
West New Britain	0	765,931	504,600	388,887	1,346,606	2,600,276	6,032,606
Bougainville	0	1,564,656	4,859,606	374,176	3,248,555	0	10,742,165
Papua New Guinea	66,937,782	44,136,734	22,237,432	20,216,030	16,460,230	6,147,153	203,307,762

(a) See Table 5.1.1 for the list of agricultural activities.

Source: MASP.

Appendix Table A5.1.2 Estimated annual cash income of the rural population from agricultural activities, by income class and province, 1990–1995

Province	Income class (kina/person/year)										Total rural population ^[a]			
	K0–20	%	K21–50	%	K51–100	%	K101–150	%	K151–200	%	K201–300	%	Total rural population	%
Western	39,555	48.3	42,267	51.7	0	0.0	0	0.0	0	0.0	0	0.0	81,822	0.0
Gulf	17,637	25.2	36,778	52.6	0	0.0	15,526	22.2	0	0.0	0	0.0	69,940	0.0
Central	42,893	36.0	51,786	43.5	3,307	2.8	19,253	16.2	1,929	1.6	0	0.0	119,168	0.0
Milne Bay	51,444	36.0	70,208	49.1	21,245	14.9	0	0.0	0	0.0	0	0.0	142,896	0.0
Oro	14,024	17.4	29,407	36.5	181	0.2	37,035	45.9	0	0.0	0	0.0	80,646	0.0
Southern Highlands	342,582	85.8	56,880	14.2	0	0.0	0	0.0	0	0.0	0	0.0	399,461	0.0
Enga	72,044	33.5	71,869	33.4	71,203	33.1	0	0.0	0	0.0	0	0.0	215,116	0.0
Western Highlands	13,513	4.8	87,091	30.9	0	0.0	0	0.0	180,946	64.3	0	0.0	281,550	0.0
Simbu	48,703	26.4	80,380	43.6	529	0.3	0	0.0	54,579	29.6	0	0.0	184,191	0.0
Eastern Highlands	34,394	11.5	39,575	13.3	62,364	20.9	9,053	3.0	128,896	43.2	24,263	8.1	298,546	0.0
Morobe	143,345	53.1	30,470	11.3	42,336	15.7	2,607	1.0	50,576	18.7	858	0.3	270,192	0.0
Madang	93,143	39.8	50,583	21.6	37,411	16.0	15,574	6.7	37,089	15.9	0	0.0	233,801	0.0
East Sepik	69,020	30.0	115,026	49.9	42,475	18.4	3,927	1.7	0	0.0	0	0.0	230,448	0.0
Sandaun	116,876	92.3	9,778	7.7	0	0.0	0	0.0	0	0.0	0	0.0	126,654	0.0
Manus	0	0.0	3,799	14.3	5,680	21.5	17,000	64.2	0	0.0	0	0.0	26,479	0.0
New Ireland	13,140	16.8	24,598	31.4	3,190	4.1	18,952	24.2	18,534	23.6	0	0.0	78,414	0.0
East New Britain	26,003	19.7	3,528	2.7	0	0.0	16,681	12.6	0	0.0	86,014	65.1	132,225	0.0
West New Britain	36,982	44.6	0	0.0	1,799	2.2	44,149	53.2	0	0.0	0	0.0	82,930	0.0
Bougainville	516	0.4	61,009	48.1	8,872	7.0	56,438	44.5	0	0.0	0	0.0	126,835	0.0
Papua New Guinea	1,175,815	37.0	865,030	27.2	300,591	9.4	256,194	8.1	472,550	14.9	111,135	3.5	3,181,315	0.0

[a] Population figures are for estimated rural population in 1990 extrapolated from the 2000 census data, using the 1980 to 2000 growth rate.

Source: MASP.

Appendix Table A5.4.1 Coffee production by province, 1993–2006 (tonnes)

Province	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Gulf	60	0	0	0	9	25	26	0	0	0	0	0	0	15
Central	60	0	0	0	0	0	105	22	6	13	16	0	1,079	29
Milne Bay	0	0	31	27	0	0	25	5	0	0	0	0	0	0
Oro	60	60	13	3	5	29	401	28	201	77	93	0	0	30
Southern Highlands	240	420	934	954	1,322	927	874	1,163	1,254	849	885	822	1,295	939
Enga	780	840	1,749	2,248	1,822	2,025	1,304	2,043	2,329	1,810	2,182	2,024	3,309	1,792
Western Highlands	30,600	29,640	27,393	29,972	28,501	34,141	35,136	29,902	27,792	30,039	27,843	25,683	32,375	21,217
Simbu	4,260	3,720	4,422	6,131	5,447	7,944	7,189	5,208	6,832	6,186	7,990	7,401	8,633	2,895
Eastern Highlands	22,320	24,480	19,237	23,229	18,814	23,764	24,286	19,664	20,712	18,783	26,099	24,102	20,144	20,603
Morobe	2,580	3,240	2,562	1,839	4,051	5,342	6,334	4,513	3,316	5,035	3,293	3,036	4,820	3,204
Madang	180	240	222	0	40	77	114	139	3	9	20	63	0	1
East Sepik	2,400	3,360	3,026	2,316	4,512	2,595	3,691	2,022	2,473	1,052	162	127	288	202
Papua New Guinea	63,540	66,000	59,588	66,719	64,524	76,869	79,484	64,709	64,918	63,853	68,583	63,259	71,944	50,927

Source: Coffee Industry Corporation Ltd.

Appendix Table A5.4.2 Volume and value of coffee exports, 1947–2006

Year	Volume (tonnes)	Value (K'000)	Year	Volume (tonnes)	Value (K'000)	Year	Volume (tonnes)	Value (K'000)
1947	48	8	1967	12,911	10,208	1987	64,840	134,643
1948	7	3	1968	18,267	14,320	1988	44,784	116,353
1949	17	7	1969	19,871	15,531	1989	84,307	140,347
1950	21	8	1970	25,376	20,182	1990	63,429	103,539
1951	33	17	1971	23,556	20,572	1991	47,206	79,418
1952	35	22	1972	27,748	20,457	1992	53,000	68,100
1953	47	62	1973	30,650	23,394	1993	62,800	100,500
1954	87	120	1974	32,196	28,847	1994	64,700	204,800
1955	107	150	1975	36,136	33,501	1995	55,100	214,500
1956	171	188	1976	37,091	42,225	1996	62,300	190,300
1957	274	367	1977	37,565	143,441	1997	59,200	325,900
1958	385	450	1978	45,801	107,225	1998	83,500	476,400
1959	1,088	912	1979	49,586	124,996	1999	79,200	417,100
1960	1,488	1,434	1980	51,006	118,643	2000	62,572	274,712
1961	2,294	2,212	1981	47,057	74,218	2001	65,743	247,791
1962	3,443	3,114	1982	41,014	77,780	2002	63,423	276,647
1963	4,845	4,028	1983	52,518	94,659	2003	68,830	298,256
1964	6,831	5,366	1984	50,771	113,317	2004	62,860	283,790
1965	8,687	7,295	1985	40,607	117,112	2005	71,979	471,009
1966	10,804	8,787	1986	53,069	203,624	2006	50,928	337,985

Sources: 1947–1976: Munnell and Densley (c. 1978); 1977–1991: DAL (1992); 1992–1999: Bank of PNG; 2000–2006: Coffee Industry Corporation Ltd.

Appendix Table A5.4.3 Coffee production by sector, 1985–2006 (tonnes)

Year	Smallholder	Plantation ^[a]	Total	Year	Smallholder	Plantation ^[a]	Total
1985	32,100	17,220	49,320	1996	49,500	15,600	65,100
1986	30,780	14,280	45,060	1997	52,260	12,240	64,500
1987	46,680	16,200	62,880	1998	64,560	16,140	80,700
1988	57,600	16,080	73,680	1999	67,800	11,940	79,740
1989	44,520	17,040	61,560	2000	53,040	11,640	64,680
1990	41,220	15,000	56,220	2001	55,860	9,060	64,920
1991	33,420	12,060	45,480	2002	54,300	9,540	63,840
1992	38,460	18,060	56,520	2003	56,430	16,818	73,248
1993	44,520	17,040	61,560	2004	53,505	7,995	61,500
1994	41,220	15,000	56,220	2005	63,750	11,250	75,000
1995	43,920	15,420	59,340	2006	42,787	8,126	50,913

^[a] Plantation includes both plantations (30 ha or more under coffee) and coffee blocks (5–29 ha).

Source: Coffee Industry Corporation Ltd.

Appendix Table A5.4.4 Destination of coffee exports, 2000–2006

Destination	2000		2001		2002		2003	
	Volume (tonnes)	Value (K'000)	Volume (tonnes)	Value (K'000)	Volume (tonnes)	Value (K'000)	Volume (tonnes)	Value (K'000)
Australia	13,241.7	65,849.9	7,008.5	27,530.8	6,979.3	30,047.4	7,620.5	35,753.7
Belgium	277.2	649.1	433.1	1,358.9	617.0	3,518.4	503.5	2,733.7
Bulgaria	0.0	0.0	0.0	0.0	18.0	67.2	0.0	0.0
Canada	36.0	211.3	0.0	0.0	18.0	123.3	0.0	0.0
China	0.0	0.0	0.0	0.0	0.0	0.0	58.7	148.1
Czech Republic	0.0	0.0	0.0	0.0	0.0	0.0	21.6	79.1
Denmark	33.6	64.4	34.8	50.4	313.0	693.2	220.9	664.3
Fiji	20.2	163.9	30.7	172.9	38.7	288.4	39.2	303.8
Finland	0.0	0.0	294.0	1,194.7	378.0	1,723.3	108.0	487.6
France	140.4	687.6	258.1	1,171.5	154.8	1,042.1	187.2	1,380.3
Germany	32,808.6	138,076.2	32,741.9	120,547.2	35,382.1	145,615.1	36,113.9	138,240.4
Greece	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hong Kong	90.0	358.0	147.0	538.5	76.2	365.8	189.0	1,171.8
Hungary	0.0	0.0	72.0	226.1	0.0	0.0	0.0	0.0
Ireland	270.0	1,231.4	111.6	375.5	414.0	1,808.3	522.0	2,215.6
Israel	0.0	0.0	18.0	61.2	0.0	0.0	0.0	0.0
Italy	54.0	231.8	144.0	517.9	36.0	143.3	92.1	511.8
Japan	2,482.3	12,201.7	4,830.8	18,925.6	6,887.6	30,636.4	6,594.7	29,157.9
Malaysia	0.4	5.6	0.7	14.1	0.0	0.0	252.2	1,013.1
Netherlands	285.0	487.4	0.0	0.0	20.3	167.9	311.9	2,109.8
New Caledonia	274.2	1,120.0	310.1	1,322.7	351.6	1,688.3	233.4	1,213.4
New Zealand	659.4	3,646.6	803.5	4,108.8	698.0	3,967.6	522.5	3,707.2
North Korea	87.7	525.1	0.0	0.0	0.0	0.0	0.0	0.0
Norway	54.0	267.5	56.4	242.7	0.0	0.0	162.0	635.9
Oman	54.0	176.7	0.0	0.0	0.0	0.0	54.0	131.5
Philippines	0.0	0.0	0.0	0.0	0.7	13.7	0.0	0.0
Poland	1,213.8	4,886.2	979.5	3,526.4	615.0	2,365.3	574.2	2,072.9
Portugal	522.0	1,577.2	648.0	1,696.4	478.8	1,714.5	338.4	1,583.7
Russia	0.0	0.0	18.0	79.7	54.0	254.0	18.0	71.4
Singapore	124.9	469.7	81.2	398.7	62.1	347.7	92.1	491.5
Solomon Islands	0.5	4.2	0.1	0.5	0.0	0.5	0.4	5.1
South Africa	0.0	0.0	0.0	0.0	0.0	0.0	234.0	940.3
South Korea	0.0	0.0	465.8	1,916.3	61.3	270.8	0.0	0.0
Spain	162.0	232.2	451.2	783.1	36.0	99.5	18.0	51.3
Sweden	0.0	0.0	0.0	0.0	0.0	0.0	370.8	1,624.4
Switzerland	0.2	6.0	0.0	0.0	126.0	851.6	0.1	4.9
Syria	0.0	0.0	13.1	35.4	11.8	34.3	15.7	39.6
Tahiti	6.0	15.5	42.0	207.2	6.0	19.1	24.0	146.2
Taiwan	54.0	81.0	69.0	243.9	24.0	183.0	7.2	66.9
Tunisia	0.0	0.0	0.0	0.0	0.0	0.0	18.0	89.6
Ukraine	18.0	76.5	0.0	0.0	18.0	65.8	0.0	0.0
United Kingdom	3,693.0	16,355.4	2,256.0	8,506.6	503.2	2,561.8	225.0	1,177.6
United States	5,872.1	24,890.6	13,369.9	51,828.9	8,989.7	45,734.9	13,032.8	67,968.8
Vanuatu	0.4	9.8	0.0	0.0	0.0	0.0	0.0	0.0
Western Samoa	36.0	153.4	54.0	208.4	54.0	234.2	53.9	263.0
Total	62,571.6	274,712.0	65,743.0	247,790.9	63,423.3	276,646.7	68,830.1	298,256.4

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Appendix Table A5.4.4 (continued)

Destination	2004		2005		2006	
	Volume (tonnes)	Value (K'000)	Volume (tonnes)	Value (K'000)	Volume (tonnes)	Value (K'000)
Australia	8,895.5	39,249.0	10,263.5	67,813.4	10,295.7	63,378.4
Belgium	553.2	3,380.7	2,520.6	17,105.5	162.0	1,344.0
Bulgaria	0.0	0.0	0.0	0.0	0.0	0.0
Canada	0.0	0.0	3.6	48.1	3.9	59.3
China	0.0	0.0	0.0	0.0	0.5	12.0
Czech Republic	0.0	0.0	0.0	0.0	0.0	0.0
Denmark	439.2	1,430.6	277.8	1,381.1	279.0	1,602.2
Fiji	39.6	338.9	21.5	206.8	20.5	187.4
Finland	345.6	1,567.9	0.0	0.0	0.0	0.0
France	342.0	1,929.3	435.6	2,654.2	90.0	789.4
Germany	31,549.4	129,376.9	34,631.9	214,363.2	20,262.7	126,515.8
Greece	0.0	0.0	0.0	0.0	40.8	271.5
Hong Kong	99.0	554.6	72.4	516.8	52.6	337.4
Hungary	0.0	0.0	0.0	0.0	0.0	0.0
Ireland	538.5	2,161.8	684.0	4,817.2	342.0	1,947.6
Israel	0.0	0.0	0.0	0.0	0.0	0.0
Italy	40.8	216.4	100.8	713.6	326.4	2,443.5
Japan	5,037.7	23,470.5	6,231.5	42,351.3	4,467.8	28,394.8
Malaysia	504.0	2,422.4	864.0	5,788.3	972.0	6,202.8
Netherlands	350.2	2,451.1	487.8	3,710.3	300.6	2,727.3
New Caledonia	234.2	1,298.1	195.4	1,515.9	193.2	1,626.7
New Zealand	666.9	3,856.7	769.4	5,773.8	698.3	5,419.3
North Korea	0.0	0.0	0.0	0.0	0.0	0.0
Norway	0.0	0.0	0.0	0.0	0.0	0.0
Oman	0.0	0.0	0.0	0.0	0.0	0.0
Philippines	0.0	0.0	0.0	0.0	0.0	0.0
Poland	0.0	0.0	36.0	207.6	0.0	0.0
Portugal	86.4	399.3	0.0	0.0	127.1	684.4
Russia	18.0	85.9	72.0	479.2	0.0	0.0
Singapore	140.2	720.7	100.1	486.7	59.6	319.1
Solomon Islands	1.1	13.1	0.4	5.8	1.2	23.3
South Africa	779.4	3,596.9	694.2	4,424.6	546.0	3,494.3
South Korea	454.9	1,904.8	1,921.8	11,497.3	651.7	4,175.0
Spain	108.0	452.8	262.8	1,746.6	252.0	1,522.2
Sweden	662.4	3,142.1	910.8	5,681.4	320.4	2,240.6
Switzerland	0.0	0.0	0.0	0.0	0.0	0.0
Syria	0.0	0.0	0.0	0.0	0.0	0.0
Tahiti	24.0	159.6	0.0	0.0	20.4	182.6
Taiwan	19.2	158.7	18.0	139.8	9.0	74.1
Tunisia	36.0	186.1	0.0	0.0	0.0	0.0
Ukraine	0.0	0.0	0.0	0.0	0.0	0.0
United Kingdom	231.0	1,312.2	216.0	1,653.9	163.2	1,407.9
United States	10,591.6	57,751.5	10,154.1	75,835.7	10,218.2	80,381.1
Vanuatu	0.0	0.0	0.0	0.0	0.0	0.0
Western Samoa	72.0	201.1	33.0	91.2	51.1	221.5
Total	62,860.0	283,789.8	71,978.8	471,009.1	50,928.0	337,985.5

Source: Coffee Industry Corporation Ltd.

Appendix Table A5.4.5 Smallholder coffee production and sales of food and alcohol in the Kainantu area, Eastern Highlands Province, 1982–1984

Month-Year	Coffee production (kg)	Food sales (kina)	Alcohol sales (kina)
Jan-82	49,858	106,212	27,100
Feb-82	48,370	105,920	25,700
Mar-82	106,291	126,825	32,042
Apr-82	81,079	147,651	35,250
May-82	173,445	151,206	55,282
Jun-82	265,978	159,907	– ^[a]
Jul-82	403,910	179,024	55,533
Aug-82	234,187	144,523	41,403
Sep-82	264,431	142,569	52,659
Oct-82	151,522	138,096	44,378
Nov-82	64,778	121,477	35,447
Dec-82	56,474	145,721	36,885
Jan-83	30,660	99,914	24,950
Feb-83	28,560	94,492	24,062
Mar-83	37,563	127,663	30,828
Apr-83	53,929	106,130	31,682
May-83	71,001	122,341	35,904
Jun-83	235,020	143,138	34,598
Jul-83	442,754	162,982	62,740
Aug-83	449,110	159,086	57,949
Sep-83	275,422	159,470	58,365
Oct-83	196,560	130,161	32,576
Nov-83	87,540	120,534	30,178
Dec-83	59,400	142,417	38,552
Jan-84	13,260	101,176	16,150
Feb-84	4,500	102,300	11,610
Mar-84	15,120	140,405	14,295
Apr-84	14,580	104,146	18,373
May-84	48,360	114,380	22,614
Jun-84	151,020	154,088	41,455
Jul-84	178,860	–	54,760
Aug-84	144,600	–	58,379
Sep-84	97,920	–	48,464
Oct-84	87,240	–	44,508
Nov-84	112,740	–	47,198
Dec-84	29,580	–	36,957

^[a] Alcohol sales were banned in Eastern Highlands Province in June 1982 because of national elections.

Source: Bourke (1988:328–9).

Appendix Table A5.5.1 Volume and value of cocoa exports, 1948–2006

Year	Volume (tonnes)	Value (K'000)	Year	Volume (tonnes)	Value (K'000)
1948	114	34	1978	27,129	62,955
1949	200	73	1979	26,139	56,603
1950	207	62	1980	27,421	44,773
1951	341	179	1981	27,183	33,404
1952	477	296	1982	28,222	31,479
1953	639	350	1983	25,955	40,874
1954	727	499	1984	33,569	66,125
1955	1,106	1,051	1985	30,427	61,554
1956	1,290	722	1986	30,509	55,592
1957	2,125	924	1987	34,297	56,076
1958	2,589	1,657	1988	37,142	45,329
1959	4,253	2,984	1989	46,340	44,340
1960	5,870	3,343	1990	35,813	32,006
1961	7,291	3,333	1991	35,151	33,059
1962	10,014	3,965	1992	38,438	33,911
1963	14,071	5,911	1993	35,919	32,207
1964	15,640	6,843	1994	31,902	39,107
1965	20,146	7,049	1995	29,078	46,568
1966	16,781	4,435	1996	37,619	52,742
1967	21,592	9,545	1997	26,643	54,519
1968	24,385	11,794	1998	26,024	85,634
1969	27,738	16,060	1999	38,792	103,516
1970	23,725	15,549	2000	45,873	99,831
1971	27,839	13,643	2001	39,342	124,575
1972	29,262	11,021	2002	39,070	255,633
1973	22,048	11,175	2003	40,378	257,880
1974	28,742	23,338	2004	41,466	218,071
1975	35,498	40,067	2005	49,070	219,507
1976	30,431	28,645	2006	47,034	217,080
1977	29,435	86,371			

Sources: 1948–1978: Territory of Papua and New Guinea Bureau of Statistics; 1979–2006: Cocoa Board of PNG.

Appendix Table A5.5.2 Cocoa production by sector, 1970/71–2005/06^[a] (tonnes)

Year	Smallholder	Plantation	Total
1970/71	8,182	17,895	26,077
1971/72	8,540	18,732	27,272
1972/73	6,817	15,541	22,358
1973/74	11,370	18,067	29,437
1974/75	12,646	22,396	35,042
1975/76	12,642	18,984	31,626
1976/77	12,954	13,662	26,616
1977/78	14,658	15,147	29,805
1978/79	16,843	13,283	30,126
1979/80	16,698	14,116	30,814
1980/81	16,082	12,047	28,129
1981/82	18,055	11,819	29,874
1982/83	20,076	9,323	29,399
1983/84	19,165	8,547	27,712
1984/85	21,170	9,617	30,787
1985/86	22,795	9,923	32,718
1986/87	21,427	10,431	31,858
1987/88	19,947	11,868	31,815
1988/89	29,482	18,349	47,831
1989/90	24,580	13,871	38,451
1990/91	18,633	13,331	31,964
1991/92	22,888	14,407	37,295
1992/93	22,628	13,105	35,733
1993/94	19,885	11,390	31,275
1994/95	20,796	9,730	30,526
1995/96	17,923	9,264	27,187
1996/97	16,997	7,584	24,581
1997/98	20,029	7,077	27,106
1998/99	26,357	6,542	32,899
1999/00	26,922	7,846	34,768
2000/01	20,861	4,999	25,860
2001/02	35,057	4,857	39,914
2002/03	36,126	5,145	41,271
2003/04	28,589	4,488	33,077
2004/05	40,155	4,626	44,781
2005/06	40,514	4,447	44,961

[a] Production is by cocoa year, October–September.

Sources: 1970/71–1975/76: Department of Primary Industry; 1976/77–2005/06: Cocoa Board of PNG.

Appendix Table A5.5.3 Cocoa production by province, 1978–2006^(a) (tonnes)

Province	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Gulf	0	0	0	0	0	0	0	0	9	14	17	73	17	19	3
Central	44	45	55	78	85	90	58	45	71	124	70	137	31	35	20
Milne Bay	34	22	50	51	66	47	0	36	43	20	16	10	45	83	62
Oro	546	356	419	331	506	402	338	488	529	590	591	1,016	1,179	1,450	1,592
Morobe	176	130	134	122	156	128	143	195	206	226	350	559	398	459	440
Madang	1,829	1,466	2,145	1,843	1,624	1,188	1,628	1,637	1,908	1,479	2,114	2,176	2,496	2,669	3,339
East Sepik	661	502	906	1,319	1,510	1,518	2,219	2,158	2,039	1,524	1,615	1,914	2,320	2,363	2,661
Sandaun	39	29	29	26	28	16	416	41	130	111	271	264	302	360	344
Manus	24	36	19	26	47	22	48	58	87	83	85	105	70	38	48
New Ireland	2,201	1,929	1,397	1,565	960	755	880	920	934	897	850	1,663	1,513	1,614	2,506
East New Britain	10,416	8,548	8,197	8,553	7,875	7,712	10,428	6,299	10,835	11,019	11,568	21,863	18,064	18,913	19,970
West New Britain	1,035	980	651	841	610	712	849	567	803	738	631	1,662	946	816	941
Bougainville	14,250	13,514	13,547	17,180	13,160	15,654	15,958	16,430	14,544	14,133	14,766	18,615	7,530	3,146	5,369
Papua New Guinea	31,255	27,557	27,549	31,935	26,627	28,244	32,965	28,874	32,138	30,958	32,944	50,057	34,908	31,965	37,295

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Appendix Table A5.5.3 (continued)

Province	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Gulf	10	0	8	0	3	0	0	0	1	1	0	0	0	0
Central	22	13	8	2	5	1	0	0	0	0	0	0	0	0
Milne Bay	82	20	34	17	64	11	8	0	1	3	5	10	3	5
Oro	1,321	1,048	955	484	385	387	330	109	215	361	1,019	331	177	22
Morobe	421	432	412	80	831	441	509	203	539	840	1,157	831	1,141	779
Madang	2,892	2,703	2,380	2,249	2,006	2,309	2,532	1,731	2,801	2,045	4,443	3,826	3,877	3,181
East Sepik	2,590	2,793	2,289	1,776	1,863	1,427	1,709	1,176	1,468	4,125	3,291	1,426	3,676	3,438
Sandaun	400	468	380	160	303	205	410	312	203	153	599	545	756	892
Manus	59	25	33	12	21	44	7	13	13	21	10	7	3	1
New Ireland	2,816	2,543	5,880	2,391	2,251	1,580	2,263	1,295	1,105	1,512	1,191	1,380	984	1,185
East New Britain	18,739	15,790	14,509	16,237	11,966	15,912	20,527	20,522	15,003	23,882	16,920	18,241	20,626	19,027
West New Britain	939	661	987	1,160	775	836	739	722	435	769	783	763	698	803
Bougainville	5,442	4,779	5,109	2,619	4,108	3,699	3,481	4,073	5,447	9,995	11,525	6,881	11,559	13,071
Papua New Guinea	35,733	31,275	32,984	27,187	24,581	26,852	32,515	30,156	27,231	43,707	40,943	34,241	43,500	42,404

(a) Values for 1991–1999 are cocoa years (ie, 1991 = October 1990 – September 1991); all other values are for calendar years.

Source: Cocoa Board of PNG.

Appendix Table A5.5.4 Destination of cocoa exports, 1996–2006

Destination	1996		1997		1998		1999		2000		2001	
	Volume (tonnes)	Value (K'000)	Volume (tonnes)	Value (K'000)	Volume (tonnes)	Value (K'000)	Volume (tonnes)	Value (K'000)	Volume (tonnes)	Value (K'000)	Volume (tonnes)	Value (K'000)
Australia	4	6	11	22	10	18	8	22	15	34	18	47
Belgium	3,197	5,159	3,018	5,854	138	410	130	326	230	504	1,221	3,791
Germany	2,595	4,874	1,969	4,271	2,727	9,686	2,938	8,385	2,483	5,865	1,942	6,332
Indonesia	–	–	–	–	–	–	–	–	5,243	11,173	5,575	17,899
Malaysia	917	1,519	3,263	6,421	1,460	5,065	3,174	7,685	3,017	6,399	2,276	8,216
Netherlands	4,846	8,337	251	480	310	859	–	–	81	139	–	–
New Zealand	–	–	–	–	–	–	–	–	–	–	14	44
Philippines	1,300	2,288	1,875	3,897	2,512	8,288	–	–	2,505	5,473	800	2,780
Singapore	15,726	26,515	7,692	15,458	6,951	21,503	4,962	12,675	20,554	43,834	11,274	37,186
Spain	–	–	–	–	–	–	–	–	–	–	101	90
Thailand	–	–	–	–	–	–	–	–	2,730	6,094	423	1,476
United Kingdom	4,676	8,130	1,436	3,105	1,336	4,366	1,708	4,948	1,323	3,177	1,161	4,189
United States	4,258	6,983	6,594	14,183	9,040	30,192	19,553	52,862	7,691	17,139	14,536	42,524
Others	100	166	533	1,187	1,540	5,235	6,319	16,612	–	–	–	–
Total	37,619	63,977	26,642	54,878	26,024	85,622	38,792	103,515	45,872	99,831	39,341	124,574

... continued

Appendix Table A5.5.4 (continued)

Destination	2002		2003		2004		2005		2006	
	Volume (tonnes)	Value (K'000)	Volume (tonnes)	Value (K'000)	Volume (tonnes)	Value (K'000)	Volume (tonnes)	Value (K'000)	Volume (tonnes)	Value (K'000)
Australia	15	91	9	59	56	261	30	155	36	180
Belgium	2,793	18,205	260	1,412	179	919	1,231	5,826	8,017	37,620
China	-	-	-	-	-	-	-	-	210	844
France	-	-	-	-	25	207	-	-	38	318
Germany	1,854	11,014	1,315	9,622	1,533	9,155	1,389	7,240	2,137	11,627
Indonesia	6,575	42,394	4,246	29,116	7,991	40,936	6,056	27,229	5,015	24,057
Malaysia	-	-	1,799	9,872	4,697	23,617	12,654	56,097	7,342	34,473
Netherlands	-	-	-	-	-	-	-	-	130	725
New Zealand	6	51	10	61	10	50	15	73	28	143
Philippines	693	5,110	187	1,386	-	-	-	-	-	-
Singapore	8,410	53,252	12,942	74,245	6,900	31,898	10,129	42,486	7,305	31,536
Spain	43	59	-	-	-	-	-	-	-	-
Switzerland	-	-	-	-	-	-	-	-	108	656
Thailand	1,165	9,620	4,100	25,867	4,885	24,375	3,344	15,351	2,940	13,607
United Kingdom	3,523	26,765	1,329	9,396	1,704	9,495	1,605	8,288	618	3,704
United States	13,993	89,072	14,181	96,844	13,486	77,156	12,617	56,762	13,110	57,590
Total	39,070	255,633	40,378	257,880	41,466	218,069	49,070	219,507	47,034	217,080

Source: Cocoa Board of PNG.

Appendix Table A5.6.1 Volume and value of copra exports, 1922–2006

Year	Volume (tonnes)	Value (K'000)	Year	Volume (tonnes)	Value (K'000)	Year	Volume (tonnes)	Value (K'000)
1922	31,454	1,123	1951	76,694	7,690	1980	90,820	24,594
1923	39,136	1,464	1952	78,140	11,439	1981	99,390	19,315
1924	42,968	1,646	1953	77,619	12,490	1982	74,357	12,878
1925	47,669	1,978	1954	84,707	13,668	1983	78,711	23,981
1926	55,298	2,442	1955	80,860	13,051	1984	94,453	49,373
1927	58,072	2,073	1956	81,473	12,372	1985	104,650	33,922
1928	76,315	2,740	1957	80,287	11,297	1986	92,968	10,154
1929	74,085	2,296	1958	72,984	9,042	1987	84,138	15,113
1930	76,737	2,082	1959	63,037	11,508	1988	77,263	19,486
1931	72,890	1,621	1960	66,446	12,253	1989	72,647	16,110
1932	70,578	1,438	1961	77,753	10,227	1990	55,300	8,700
1933	69,830	1,267	1962	76,041	9,221	1991	44,000	5,200
1934	71,481	653	1963	73,663	9,436	1992	47,500	11,800
1935	65,861	838	1964	70,384	10,018	1993	59,000	14,200
1936	78,472	1,724	1965	74,745	12,409	1994	50,300	14,700
1937	91,453	2,846	1966	89,265	14,298	1995	64,200	27,400
1938	86,328	1,878	1967	75,313	9,994	1996	99,200	49,000
1939	84,029	1,572	1968	76,710	13,943	1997	90,300	47,200
1940	67,085	1,141	1969	95,251	14,804	1998	58,100	38,800
1941	59,781	652	1970	85,601	13,340	1999	63,500	66,500
1942	27,677	425	1971	92,002	14,207	2000	67,200	59,900
1943	–	–	1972	87,532	9,392	2001	46,400	15,500
1944	–	–	1973	79,810	8,629	2002	15,800	10,700
1945	12,816	766	1974	82,909	28,718	2003	8,400	6,500
1946	11,317	631	1975	95,455	28,841	2004	19,200	17,200
1947	9,368	582	1976	83,596	12,053	2005	22,300	17,300
1948	27,414	1,885	1977	88,932	23,219	2006	12,700	8,300
1949	47,127	3,929	1978	97,056	24,999			
1950	58,814	5,677	1979	90,880	38,162			

Sources: 1922–1951: Bureau of Agricultural Economics (1953); 1952–1970: Wheeler et al. (c. 1978); 1971–1978: Bank of PNG Quarterly Economic Bulletins; 1979–1989: DAL (1992); 1990–2006: Bank of PNG.

Appendix Table A5.6.2 Copra production by province, 1976–2005 (tonnes)

Province	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Western	30	18	8	22	28	15	51	28	0	0	0	1	5	1	0
Gulf	2,031	2,122	1,732	1,890	1,053	892	669	952	0	0	0	337	311	251	70
Central	5,074	4,260	4,661	5,086	2,868	4,486	2,873	3,094	4,204	5,224	4,000	2,113	1,809	1,219	1,339
Milne Bay	4,671	5,454	5,948	6,481	6,590	5,127	3,725	5,107	0	0	0	5,532	4,618	3,673	4,257
Oro	119	127	99	146	114	58	65	93	0	0	0	79	56	44	0
Morobe	1,508	1,505	1,676	2,366	2,121	2,043	1,845	1,908	3,470	4,450	3,587	2,454	2,119	1,950	1,806
Madang	18,919	19,333	19,715	21,438	19,494	19,542	26,808	19,813	22,525	24,568	25,618	24,369	18,713	20,295	25,997
East Sepik	1,519	1,941	1,251	2,553	2,317	2,203	1,817	2,289	3,717	3,179	3,059	2,272	1,700	1,468	2,669
Sandaun	229	267	47	471	793	846	983	899	0	0	0	541	464	734	0
Manus	1,337	1,030	1,454	1,566	1,370	1,250	1,135	1,342	1,888	2,184	757	682	703	588	380
New Ireland	39,421	16,720	25,767	24,223	23,923	24,137	21,089	17,870	16,589	21,700	17,765	17,574	15,984	12,438	11,426
East New Britain	3,1845	35,621	40,855	42,712	40,717	41,055	41,206	41,321	58,597	58,923	55,538	46,924	44,762	46,254	47,908
West New Britain	7,186	8,687	11,102	12,639	12,373	13,221	15,267	14,658	13,421	16,400	14,615	16,198	12,637	14,150	15,349
Bougainville	22,049	22,532	26,114	23,773	26,584	24,991	20,877	20,859	26,658	30,782	25,835	24,698	27,128	26,756	1,801
Papua New Guinea	135,938	119,617	140,429	145,366	140,345	139,866	138,410	130,233	151,069	167,410	150,774	143,774	131,009	129,821	113,002

... continued

Appendix Table A5.6.2 (continued)

Province	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Western	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gulf	12	0	0	0	50	283	343	217	400	706	0	0	0	0	0
Central	613	832	698	470	1,114	1,189	1,389	1,404	1,025	1,274	63	12	0	0	0
Milne Bay	2,811	4,083	3,864	3,123	4,849	7,638	7,399	6,326	6,174	6,682	943	256	201	513	1,296
Oro	0	0	0	0	0	0	0	302	631	372	9	0	0	0	0
Morobe	773	1,413	1,557	1,182	1,133	2,437	2,121	2,007	3,191	3,162	985	620	0	1,024	752
Madang	20,811	23,925	25,826	16,624	24,515	33,480	28,748	27,014	28,654	29,029	20,366	16,088	9,391	24,958	20,138
East Sepik	1,892	2,403	3,227	3,055	3,538	3,987	3,611	4,082	4,844	4,017	1,264	293	0	1,624	664
Sandaun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manus	147	378	602	683	918	1,063	878	929	1,606	1,724	115	68	0	277	170
New Ireland	8,874	14,316	15,739	13,876	16,309	18,632	17,479	12,547	17,491	19,250	6,423	13,483	14,003	10,740	12,490
East New Britain	38,796	44,253	45,110	35,634	37,736	46,843	43,651	42,378	46,462	41,357	21,601	30,229	41,563	43,966	46,276
West New Britain	10,839	14,881	15,775	14,772	17,537	19,975	18,997	15,862	20,898	19,560	11,231	7,263	9,260	8,340	7,908
Bougainville	1,984	10,212	10,900	11,410	14,342	13,453	15,231	12,558	19,931	15,458	949	2,888	4,236	14,231	10,161
Papua New Guinea	87,553	116,696	123,298	100,829	122,042	148,980	139,849	125,625	151,307	142,591	63,950	71,201	78,654	105,673	99,855

Sources: 1976–2000: Copra Marketing Board; 2001–2005: Kokonas Industri Koporesen.

Appendix Table A5.6.3 Volume and value of copra oil exports, 1953–2006

Year	Volume (tonnes)	Value (K'000)	Year	Volume (tonnes)	Value (K'000)	Year	Volume (tonnes)	Value (K'000)
1953	3,626	946	1971	27,161	7,805	1989	34,697	15,179
1954	10,379	2,796	1972	26,519	5,880	1990	34,800	11,600
1955	8,799	2,431	1973	27,738	5,567	1991	33,200	12,800
1956	10,497	2,654	1974	26,594	13,762	1992	34,800	24,200
1957	11,521	2,632	1975	26,565	14,284	1993	45,500	19,600
1958	15,039	2,946	1976	27,550	7,853	1994	34,700	20,100
1959	21,887	5,509	1977	27,665	11,616	1995	33,100	29,700
1960	25,936	7,627	1978	27,608	11,706	1996	49,600	51,400
1961	20,757	4,722	1979	30,822	20,599	1997	48,600	51,100
1962	19,942	3,939	1980	34,142	16,610	1998	53,200	69,700
1963	24,021	4,668	1981	34,772	12,508	1999	50,300	95,800
1964	21,435	4,637	1982	37,593	12,110	2000	48,000	65,800
1965	25,945	6,781	1983	36,179	20,038	2001	27,100	27,300
1966	22,251	5,864	1984	40,867	40,421	2002	28,200	33,300
1967	23,554	5,181	1985	38,761	22,706	2003	47,700	67,400
1968	24,485	6,875	1986	41,109	10,887	2004	45,100	81,000
1969	20,894	5,772	1987	40,183	14,486	2005	54,400	93,700
1970	21,670	5,801	1988	36,246	17,456	2006	41,500	60,400

Sources: 1953–1970: Wheeler et al. (c. 1978); 1971–1978: Bank of PNG Quarterly Economic Bulletins; 1979–1989: DAL (1992); 1990–2006: Bank of PNG.

Appendix Table A5.6.4 Destination of copra exports, 1998–2005 (tonnes)

Destination	1998	1999	2000	2001 ^[a]	2002	2003	2004	2005
Australia	0	3,716	3,442	0	0	0	0	1,799
Bangladesh	0	0	0	0	0	0	1,799	0
Europe ^[b]	23,043	22,804	39,298	12,346	9,202	4,916	10,721	19,057
India	0	0	0	0	0	0	0	105
Japan	24,370	29,329	27,165	8,982	3,332	383	0	0
Singapore	8,727	2,679	0	1,136	3,110	596	1,088	1,628
Solomon Islands	0	0	0	0	0	0	0	398
United Kingdom	0	0	0	0	0	0	7,542	0
Vanuatu	0	0	0	0	0	0	774	0
Total	56,140	58,528	69,905	22,464	15,644	5,895	21,925	22,988

^[a] Less copra has been exported from 2001 onwards because more copra is being processed into copra oil at Madang and Toboi mills.

^[b] 'Europe' is not defined in the data source for 1998–2003; in 2004–2005 exports were to Germany.

Source: Kokonas Industri Koporesen.

Appendix Table A5.7.1 Volume and value of palm oil exports, 1972–2007

Year	Volume (tonnes)	Value (K'000)	Year	Volume (tonnes)	Value (K'000)
1972	3,409	515	1990	142,700	32,700
1973	7,939	1,148	1991	199,600	52,500
1974	8,734	2,685	1992	206,100	64,200
1975	18,438	6,786	1993	245,700	79,200
1976	27,262	6,776	1994	230,800	77,500
1977	24,532	8,582	1995	186,600	142,200
1978	28,413	10,483	1996	267,000	182,400
1979	34,527	14,441	1997	274,900	207,100
1980	33,347	11,956	1998	213,000	271,900
1981	44,031	14,223	1999	253,800	337,900
1982	76,715	21,655	2000	336,300	306,600
1983	77,940	23,740	2001	327,600	290,500
1984	129,900	75,700	2002	323,900	389,900
1985	123,800	61,600	2003	326,900	421,300
1986	129,000	28,300	2004	339,000	438,700
1987	97,300	23,900	2005	295,200	391,400
1988	102,600	32,900	2006	362,300	430,100
1989	131,700	38,300	2007 ^[a]	368,300	672,200

[a] The 2007 figures are provisional.

Sources: 1972–1975: Territory of Papua and New Guinea Bureau of Statistics; 1976–1979: Bank of PNG Quarterly Economic Bulletins; 1980–1983: DAL (1992); 1984–2007: Bank of PNG.

Appendix Table A5.7.2 Oil palm production (fresh fruit bunch) by sector, 1985–2007 (tonnes)

Year	Smallholder	Plantation	Others	Total
1985	284,800	283,700		568,500
1986	286,200	280,700		566,900
1987	269,800	270,300		540,100
1988	246,200	254,300		500,500
1989	277,700	329,200		606,900
1990	248,100	350,100	60,200	658,400
1991	263,600	473,500	46,400	783,500
1992	261,800	612,200	18,100	892,100
1993	261,000	703,500	20,500	985,000
1994	263,100	723,800	1,400	988,300
1995	278,900	702,800	2,000	983,700
1996	309,511	865,923	21,338	1,196,772
1997	287,641	812,478		1,100,119
1998	395,800	705,500		1,101,300
1999	423,700	767,900	4,900	1,196,500
2000	531,263	1,086,821		1,618,084
2001	525,298	995,165		1,520,463
2002	554,608	1,042,890		1,597,498
2003	545,333	1,134,356		1,679,689
2004	586,910	1,183,850		1,770,760
2005	614,004	1,241,036		1,855,040
2006	656,119	1,355,719		2,011,838
2007	719,419	1,452,011		2,171,430

Sources: 1985–1995: Oil Palm Industry Corporation; 1996–1999: Palm Oil Producers Association (compiled by DAL); 2000–2007: Ian Orrell, Oil Palm Research Association.

Appendix Table A5.8.1 Log exports by province, 1991–2007 (m³)

Province	1991	1992	1993	1994	1995	1996	1997	1998	1999
Western	247,314	273,510	315,808	250,458	245,136	234,960	449,136	250,311	342,962
Gulf	97,805	152,372	170,834	165,995	108,053	156,321	448,394	184,104	342,307
Central	126,285	107,756	125,629	77,458	22,558	73,537	46,046	27,763	36,688
Milne Bay	36,604	31,432	43,812	30,425	19,901	62,202	89,906	91,695	144,861
Oro	0	35,100	67,279	64,111	27,117	55,606	30,765	20,671	26,723
Morobe	103,768	111,961	111,705	62,220	49,521	61,326	88,054	55,039	50,438
Madang	0	0	23,220	43,455	35,023	77,661	90,114	12,404	5,491
East Sepik	2,141	0	4,952	16,178	12,487	6,568	14,771	8,315	7,307
Sandaun	68,694	76,432	179,320	249,472	283,360	329,112	352,815	145,901	197,215
Manus	22,002	34,143	113,931	83,019	18,241	39,953	58,287	56,389	77,664
New Ireland	75,746	155,658	153,925	61,026	109,946	58,196	61,964	23,545	42,997
East New Britain	84,203	165,039	296,642	270,367	286,404	417,649	196,655	243,960	303,088
West New Britain	434,346	679,123	1,119,968	1,359,803	973,315	1,077,628	1,079,281	496,469	406,112
Other	73,185	43,426	5,833	–	–	–	–	–	–
Papua New Guinea	1,372,093	1,865,952	2,732,858	2,733,987	2,191,062	2,650,719	3,006,188	1,616,566	1,983,853

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Appendix Table A5.8.1 (continued)

Province	2000	2001	2002	2003	2004	2005	2006	2007
Western	423,302	347,594	458,984	563,020	335,904	312,028	339,802	236,360
Gulf	333,554	408,213	443,718	354,020	482,217	471,472	359,028	384,134
Central	59,412	62,805	104,013	75,741	52,002	7,745	45,774	100,544
Milne Bay	85,522	46,965	24,840	20,817	4,503	0	0	0
Oro	6,586	0	11,535	2,713	16,015	105,235	110,682	85,649
Morobe	44,574	41,409	30,557	19,418	2,4078	36,333	97,778	98,852
Madang	0	0	2,479	18,443	0	34,914	37,218	18,071
East Sepik	5,561	6,759	0	0	0	57,664	127,621	120,082
Sandaun	221,904	134,158	144,638	195,140	176,454	148,884	232,076	413,629
Manus	60,522	42,391	43,016	31,557	46,060	38,728	41,834	35,989
New Ireland	31,667	14,780	34,043	30,221	33,746	61,213	102,393	117,083
East New Britain	332,145	191,314	198,715	282,342	255,479	259,072	454,412	304,356
West New Britain	387,778	259,832	357,012	421,776	585,677	749,128	694,606	920,361
Papua New Guinea	1,992,527	1,556,220	1,853,550	2,015,208	2,012,135	2,282,416	2,643,224	2,835,110

Source: SGS PNG Ltd.

Appendix Table A5.8.2 Log exports by province, 1991–2007 (kina)^[a]

Province	1991	1992	1993	1994	1995	1996	1997	1998	1999
Western	17,940,150	22,544,666	51,980,730	48,736,251	43,850,484	42,063,138	75,848,288	34,300,414	67,698,673
Gulf	6,501,907	13,533,804	26,517,430	33,649,391	19,146,028	26,212,469	71,605,053	23,159,439	58,167,014
Central	8,694,037	8,320,747	20,484,842	13,819,465	3,555,824	12,656,718	6,848,997	3,079,778	5,714,468
Milne Bay	2,045,731	2,156,669	6,323,420	4,999,237	3,010,363	9,359,768	12,309,906	11,533,039	25,174,176
Oro	0	2,761,098	10,709,286	13,699,452	5,526,710	10,863,305	5,186,752	3,704,348	5,102,000
Morobe	6,951,661	9,345,370	22,052,482	12,995,979	9,541,088	10,553,126	14,561,935	7,720,929	9,874,794
Madang	0	0	3,938,198	7,423,606	5,175,506	12,940,859	15,121,242	1,161,599	610,898
East Sepik	114,204	0	601,109	3,088,812	1,960,603	992,865	1,874,356	580,090	1,431,883
Sandaun	8,046,210	8,346,507	33,849,893	49,563,696	61,902,253	70,067,773	68,253,321	28,573,599	43,961,006
Manus	1,951,503	3,668,009	27,293,847	19,876,388	3,821,478	8,291,695	12,427,903	8,956,097	20,223,559
New Ireland	5,573,538	12,878,377	24,576,045	11,345,847	20,300,119	11,433,155	11,875,012	2,586,289	7,421,474
East New Britain	6,224,159	13,594,344	48,809,278	49,611,098	49,886,390	73,029,468	29,122,888	29,759,535	57,892,046
West New Britain	29,855,507	53,683,269	171,591,970	241,957,748	163,707,601	179,023,143	171,115,651	62,968,499	82,285,067
Other	5,636,309	4,102,791	885,253	–	–	–	–	–	–
Papua New Guinea	99,534,914	154,935,650	449,613,782	510,766,970	391,384,447	467,487,482	496,151,304	218,083,655	385,557,058

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Appendix Table A5.8.2 (continued)

Province	2000	2001	2002	2003	2004	2005	2006	2007
Western	82,741,270	66,659,999	98,019,320	109,872,779	67,946,108	63,453,933	67,320,647	47,362,562
Gulf	62,070,678	74,393,438	88,435,881	63,321,191	90,817,446	87,693,986	64,108,344	75,126,214
Central	8,466,926	10,274,548	18,943,421	12,742,536	9,976,127	4,545,791	10,424,840	19,213,881
Milne Bay	14,774,866	7,279,578	3,417,572	3,219,581	541,583	0	0	0
Oro	1,474,798	0	2,472,448	499,955	2,876,214	19,029,482	19,459,505	16,093,169
Morobe	9,373,135	6,217,634	4,844,623	2,788,873	4,214,373	6,032,329	15,583,192	15,853,376
Madang	0	0	497,127	2,794,726	0	5,395,239	6,559,117	2,870,827
East Sepik	793,648	822,981	0	0	0	13,475,236	26,358,083	27,922,727
Sandaun	48,184,626	24,809,499	31,740,253	36,294,489	34,499,023	31,408,030	45,858,376	101,249,271
Manus	15,540,520	9,676,609	11,979,774	8,080,612	11,463,205	9,841,647	9,841,689	8,438,072
New Ireland	4,309,600	1,793,289	5,672,012	4,416,886	5,748,520	8,862,658	16,854,785	20,482,423
East New Britain	60,917,316	34,450,091	38,822,065	53,026,940	55,358,636	47,306,694	84,263,776	59,035,736
West New Britain	75,096,816	46,712,232	62,088,224	72,498,211	100,221,422	132,835,112	123,677,411	176,940,466
Papua New Guinea	383,744,199	283,089,898	366,932,720	369,556,779	383,662,657	429,880,136	490,309,765	570,588,724

(a) 1991–1996 and 2004–2005 converted from US\$ to kina using Bank of PNG exchange rates.

Source: SGS PNG Ltd.

Appendix Table A5.8.3 Volume and value of log exports, 1961–2007

Year	Volume (m ³)	Value (kina)	Year	Volume (m ³)	Value (kina)
1961	136,400		1985	1,052,600	53,578,921
1962	159,100		1986	1,279,600	67,746,059
1963	181,800		1987	1,312,600	93,167,164
1964	204,500		1988	1,174,700	77,260,826
1965	227,300		1989	1,259,200	84,354,251
1966	261,400		1990	1,002,000	68,539,340
1967	318,200		1991	1,374,883	99,751,254
1968	363,600		1992	1,869,210	155,182,520
1969	340,900		1993	2,732,860	449,613,783
1970	363,600		1994	2,761,036	513,476,634
1971	454,500		1995	2,191,064	391,384,449
1972	434,500		1996	2,650,717	467,487,482
1973	456,600		1997	3,006,188	496,151,305
1974	686,900		1998	1,616,568	218,083,655
1975	434,400		1999	1,983,853	385,572,125
1976	552,000	9,747,000	2000	1,992,528	383,746,252
1977	468,000	10,968,000	2001	1,556,219	283,089,897
1978	453,000	11,846,000	2002	1,853,550	367,043,758
1979	510,000	20,883,000	2003	2,015,208	369,556,781
1980	641,900	20,084,283	2004	2,012,136	355,660,116
1981	742,800	21,274,787	2005	2,282,414	405,370,831
1982	1,063,300	37,077,406	2006	2,638,297	489,463,821
1983	1,019,200	38,570,916	2007	2,835,110	570,588,726
1984	1,283,900	66,301,349			

Sources: 1961–1971: PNG Department of Forests; 1972–1979: Bank of PNG Quarterly Economic Bulletins; 1980–1990: PNG Forest Authority; 1991–2007: SGS PNG Ltd.

Appendix Table A5.8.4 Destination of log exports, 1991–2007 (m³)

Destination	1991	1992	1993	1994	1995	1996	1997	1998	1999
China	47,252	36,179	69,054	55,045	46,183	57,228	104,418	157,862	328,890
Hong Kong	22,536	31,158	55,489	127,744	76,321	49,905	129,445	39,246	34,209
India	16,138	17,100	22,817	14,193	17,502	43,373	49,440	39,619	26,169
Indonesia	0	0	0	0	0	0	0	0	0
Japan	760,705	1,031,568	1,531,757	1,744,567	1,237,083	1,682,844	1,960,249	897,884	988,711
Malaysia	5,112	17,951	6,503	0	15,906	6,023	29,253	13,042	8,201
Philippines	9,600	41,436	74,002	45,075	117,731	268,760	196,016	147,008	136,229
Singapore	0	0	0	0	0	2,033	0	6,251	0
South Korea	492,654	654,700	748,771	715,856	607,946	486,518	421,219	281,053	416,680
Taiwan	11,707	22,641	56,287	47,944	58,610	33,034	88,373	24,435	41,049
Thailand	9,179	16,477	14,998	10,612	13,782	20,999	27,775	10,168	3,715
Vietnam	0	0	0	0	0	0	0	0	0
Other	-	-	153,182	-	-	-	-	-	-
Total	1,374,883	1,869,210	2,732,860	2,761,036	2,191,064	2,650,717	3,006,188	1,616,568	1,983,853

... continued

Appendix Table A5.8.4 (continued)

Destination	2000	2001	2002	2003	2004	2005	2006	2007
China	687,779	785,734	1,133,701	1,245,119	1,296,434	1,720,500	2,228,934	2,355,738
Hong Kong	53,183	46,831	12,945	54,185	7,918	0	0	0
India	6,481	0	0	0	19,673	27,286	45,646	95,405
Indonesia	0	8,345	37,855	0	0	0	12	5,050
Japan	745,612	418,235	418,486	406,806	339,969	215,875	193,145	152,820
Malaysia	13,274	4,192	0	0	0	0	0	7,238
Philippines	96,182	30,159	36,773	21,579	7,216	17,919	21,690	23,353
Singapore	0	0	0	0	2,730	0	0	0
South Korea	323,091	224,054	171,079	183,217	157,317	116,662	70,686	57,431
Taiwan	47,913	28,279	42,711	36,428	44,567	25,712	5,134	389
Thailand	8,558	0	0	0	0	12,105	8,959	6,553
Vietnam	10,455	10,390	0	67,874	136,312	146,355	64,091	131,133
Total	1,992,528	1,556,219	1,853,550	2,015,208	2,012,136	2,282,414	2,638,297	2,835,110

Source: SGS PNG Ltd.

Appendix Table A5.8.5 Destination of log exports, 1991–2006^[a] (US\$)

Destination	1991	1992	1993	1994	1995	1996
China	4,212,580	3,907,394	10,799,706	8,838,369	8,083,815	9,985,820
Hong Kong	3,172,531	5,160,710	10,208,909	25,459,001	17,457,936	11,262,097
India	2,674,476	2,399,253	4,697,083	3,119,903	3,798,896	9,673,679
Indonesia	0	0	0	0	0	0
Japan	60,043,718	91,591,007	279,517,862	288,975,785	173,568,346	230,146,889
Malaysia	358,758	1,159,345	764,957	0	1,798,256	632,498
Philippines	473,991	2,598,361	9,729,470	4,950,760	12,091,713	28,046,691
Singapore	0	0	0	0	0	447,174
South Korea	32,508,084	47,768,007	106,367,796	96,658,904	70,766,647	57,555,618
Taiwan	731,441	1,515,445	7,161,150	6,402,430	6,125,198	2,962,477
Thailand	543,287	1,053,817	1,671,854	1,279,774	1,608,760	2,380,351
Vietnam	0	0	0	0	0	0
Other	–	–	27,237,659	–	–	–
Total	104,718,866	157,153,339	458,156,446	435,684,926	295,299,567	353,093,294

... continued

Appendix Table A5.8.5 (continued)

Destination	2000	2001	2002	2003	2004	2005	2006
China	48,765,988	44,246,289	62,929,046	68,720,273	76,560,021	105,669,106	143,126,416
Hong Kong	4,442,856	2,791,332	791,442	2,957,013	417,316	0	0
India	777,668	0	0	0	2,543,413	2,637,206	5,364,123
Indonesia	0	444,831	2,002,607	0	0	0	718
Japan	56,972,759	26,030,620	22,209,475	21,359,766	19,446,139	13,265,985	11,621,455
Malaysia	834,889	239,830	0	0	0	0	0
Philippines	5,914,051	1,717,255	1,865,592	1,143,655	486,438	1,126,892	1,722,877
Singapore	0	0	0	0	158,314	0	0
South Korea	21,488,133	11,819,418	7,920,166	8,344,703	7,708,430	6,192,170	3,916,969
Taiwan	2,779,515	1,332,847	2,032,526	1,743,467	2,319,599	1,270,289	289,429
Thailand	722,062	0	0	0	0	675,421	524,516
Vietnam	1,007,174	778,718	0	4,765,637	9,334,121	7,756,289	3,717,073
Total	143,705,095	89,401,140	99,750,854	109,034,514	118,973,791	138,593,358	170,283,576

^[a] Data were not available for 1997–1999.

Source: SGS PNG Ltd.

Appendix Table A5.9.1 Volume and value of marine product exports, 1977–2006

Year	Volume (tonnes)	Value (K'000)
1977	24,883	19,263
1978	46,831	24,851
1979	28,695	20,861
1980	34,729	31,739
1981	31,404	26,913
1982	4,139	8,288
1983	2,060	9,519
1984	3,133	8,173
1985	10,197	14,419
1986	2,030	11,303
1987	1,815	11,598
1988	1,536	8,945
1989	2,092	11,422
1990	2,164	11,322
1991	1,898	9,707
1992	3,580	9,300
1993	1,896	7,800
1994	1,443	10,300
1995	1,936	12,300
1996	4,508	25,880
1997	7,810	37,151
1998	38,147	135,636
1999	39,904	124,858
2000	50,048	158,212
2001	52,699	227,326
2002	57,610	307,863
2003	52,206	246,464
2004	42,899	253,330
2005	60,944	291,853
2006	43,708	261,022

Sources: 1977–1991: DAL (1992); 1992–2006: National Fisheries Authority.

Appendix Table A5.9.2 Volume of marine exports by product, 1992–2006 (tonnes)

Year	Tuna ^(a)		fresh/chilled	dried/meal	Shark ^(b)	Bêche-de-mer ^(c)	Shell ^(d)	Shrimp (frozen)	Fish ^(e)	Crab ^(f)	Lobster ^(g)	Total
	frozen	canned										
1992	1,514	–	–	–	296	656	286	757	32	0.4	38	3,579
1993	255	–	–	–	205	500	180	695	5	0.8	55	1,896
1994	177	–	–	–	98	209	229	601	25	7	97	1,443
1995	88	–	–	–	153	445	332	738	56	8	116	1,936
1996	2,287	–	–	–	162	596	225	725	418	5	90	4,508
1997	–	4,286	453	302	95	505	243	567	38	4	107	7,810
1998	–	28,322	590	1,011	867	679	333	946	97	3	115	38,147
1999	–	29,122	679	260	1,410	395	264	833	123	2	105	39,904
2000	–	32,977	1,197	1,690	1,804	608	246	934	191	4	98	50,048
2001	–	34,611	1,799	1,320	1,629	484	347	947	295	4	66	52,699
2002	–	33,908	3,229	3,120	1,451	389	420	787	312	–	108	57,610
2003	–	27,472	3,655	5,213	1,302	401	466	761	355	–	87	55,206
2004	–	17,504	2,310	3,521	1,464	488	399	620	121	4	91	42,900
2005	–	37,355	929	3,943	1,471	597	399	522	207	7	117	60,944
2006	–	16,627	1,565	6,142	1,684	666	453	286	139	9	55	43,708

(a) For the period 1992–1996, all categories of tuna are combined.

(b) Shark includes dried maw, fresh chilled, frozen and oil products and also dried and frozen sharkfin.

(c) See Kinch et al. (2007) for volume of bêche-de-mer exports for 1960–2006.

(d) The category 'shell' includes various shell products such as buttons and pearlshell.

(e) Fish includes canned, fresh chilled, frozen, live, maw, oil meat and unstated products.

(f) Crab includes cooked, frozen and live products. Crab is included with fish for 2002 and 2003.

(g) Lobster includes frozen and live products.

Source: National Fisheries Authority.

Appendix Table A5.9.3 Value of marine exports by product, 1996–2006 (K'000)

Year	Tuna		Shark ^(b)	Bêche-de-mer	Shell ^(c)	Shrimp (frozen)	Fish ^(d)	Crab ^(e)	Lobster ^(f)	Total
	frozen	canned								
1996	–	–	–	7,872	3,300	7,612	491	47	2,542	25,880
1997	6,240	5,324	167	7,683	3,529	7,190	534	34	3,622	37,151
1998	55,234	23,946	507	16,893	5,312	19,150	741	30	5,972	135,636
1999	38,425	32,173	204	11,024	5,083	18,537	1,003	17	6,227	124,585
2000	36,942	48,728	1,075	16,321	4,979	22,100	993	58	6,255	158,212
2001	75,533	61,422	1,641	17,278	3,712	25,845	1,362	124	5,660	227,326
2002	117,102	94,576	1,748	17,344	4,218	24,100	1,644	–	10,644	307,863
2003	50,544	103,217	2,106	20,412	3,855	20,210	1,739	–	8,117	246,464
2004	37,488	122,402	4,520	23,049	3,439	13,417	1,388	92	8,054	253,330
2005	84,240	125,950	4,845	29,448	4,890	12,564	1,980	135	10,150	291,853
2006	40,576	126,224	9,473	36,715	7,308	6,980	1,735	169	4,026	261,022

(a) For 1996, all categories of tuna are combined.

(b) Shark includes dried maw, fresh chilled, frozen and oil products and also dried and frozen sharkfin.

(c) The category 'shell' includes various shell products such as buttons and pearlshell.

(d) Fish includes canned, fresh chilled, frozen, live, maw, oil meat and unstated products.

(e) Crab includes cooked, frozen and live products. Crab is included with fish for 2002 and 2003.

(f) Lobster includes frozen and live products.

Source: National Fisheries Authority.

Appendix Table A5.10.1 Commercial sugar harvest, production, domestic sales and exports, 1982–2007

Year	Area harvested (hectares)		Cane harvested (tonnes)		Total	Sugar production (tonnes)	Domestic sales (tonnes)	Exports (tonnes)
	Estate	Outgrowers	Estate	Outgrowers				
1982	1,345	0	118,408	0	118,408	11,072	0	0
1983	4,551	87	356,113	6,877	362,990	33,320	26,249	0
1984	4,994	681	323,854	38,079	361,933	34,114	27,616	11,003
1985	4,855	818	245,051	49,746	294,797	30,050	26,625	0
1986	3,724	934	99,583	29,203	128,786	9,377	27,504	10,780
1987	3,800	794	243,070	43,327	286,397	22,107	28,493	6,519
1988	5,725	950	492,077	79,443	571,520	50,870	29,155	7,852
1989	5,958	919	316,589	47,634	364,223	30,410	29,384	14,844
1990	5,984	894	291,375	10,189	301,564	28,274	27,666	9,818
1991	6,371	705	303,729	32,699	336,428	29,804	25,989	7,765
1992	6,277	725	369,931	45,783	415,714	36,967	28,443	6,974
1993	6,129	712	307,730	32,331	340,061	32,203	30,020	0
1994	5,835	842	356,775	59,473	416,248	39,522	32,319	7,529
1995	6,032	797	371,930	55,411	427,341	35,162	30,803	7,435
1996	5,365	1,325	307,431	82,876	390,307	29,797	33,912	0
1997	5,815	1,731	308,538	88,598	397,136	39,279	36,982	7,012
1998	6,070	1,635	363,894	101,430	465,324	41,141	36,213	7,021
1999	5,954	2,193	380,113	139,471	519,584	44,521	35,543	6,960
2000	5,847	2,153	319,633	113,057	432,690	38,519	32,881	6,952
2001	5,333	2,498	311,421	143,155	454,576	42,438	32,590	8,241
2002	5,204	2,132	365,786	155,486	521,272	49,102	34,000	8,327
2003	5,066	1,941	349,092	147,499	496,591	46,490	32,000	10,350
2004	5,463	1,793	326,708	101,758	428,466	42,658	33,000	19,227
2005	6,258	1,710	368,256	101,113	469,369	44,074	37,000	7,823
2006	6,044	1,231	309,356	52,201	361,557	31,796	33,000	8,000
2007	6,642	1,219	321,991	49,802	371,793	33,516	n.a.	0

Source: Ramu Agri-Industries Ltd.

Appendix Table A5.11.1 Volume and value of rubber exports, 1936–2007^[a]

Year	Volume (tonnes)	Value (kina)	Year	Volume (tonnes)	Value (kina)	Year	Volume (tonnes)	Value (kina)
1936	1,101		1960	4,470	3,000,394	1984	3,009	2,543,000
1937	1,183		1961	4,443	2,584,302	1985	5,019	3,668,000
1938	1,240		1962	4,755	2,421,444	1986	5,105	3,855,000
1939	1,315		1963	4,836	2,348,090	1987	4,252	3,397,000
1940	1,446		1964	5,088	2,452,062	1988	4,921	4,859,000
1941	1,481		1965	5,405	2,564,000	1989	4,905	3,359,000
1942	1,063		1966	5,474	2,576,000	1990	3,223	2,182,000
1943	403		1967	5,791	2,480,000	1991	2,772	1,835,000
1944	1,792		1968	5,690	1,956,000	1992	2,598	1,880,000
1945	1,416		1969	5,791	2,276,000	1993	3,438	2,494,000
1946	964		1970	6,350	2,797,000	1994	4,215	4,141,000
1947	958		1971	6,350	2,297,000	1995	5,396	8,946,000
1948	1,295	313,678	1972	5,944	1,995,000	1996	7,019	11,932,000
1949	1,217	291,946	1973	5,639	1,998,000	1997	4,586	6,709,000
1950	1,659	722,678	1974	6,147	3,563,000	1998	4,745	5,576,000
1951	1,983	1,604,354	1975	5,474	2,585,000	1999	4,425	5,651,000
1952	2,896	2,488,518	1976	4,956	2,653,000	2000	4,433	7,040,000
1953	2,958	1,472,146	1977	4,152	2,897,000	2001	4,133	7,465,732
1954	3,195	1,225,576	1978	4,135	2,630,000	2002	4,149	10,172,120
1955	3,650	1,907,246	1979	4,025	3,497,000	2003	4,298	12,520,100
1956	3,854	2,773,574	1980	4,027	3,751,000	2004	4,536	15,500,000
1957	4,030	2,297,084	1981	4,537	3,403,000	2005	5,231	17,985,000
1958	4,327	2,229,432	1982	2,337	1,406,000	2006	4,400	23,800,000
1959	4,450	2,303,742	1983	2,735	2,167,000	2007	4,100	22,900,000

^[a] Figures for 1935–36 to 1946–47 are for imports of rubber into Australia from PNG. This was the main export destination for PNG rubber in this period. Value data were not available.

Sources: 1936–1947: Bureau of Agricultural Economics (1952:15); 1948–1976: Territory of Papua and New Guinea Bureau of Statistics; 1977–1984: DAL (1992); 1985–1999: DAL (2001); 2000–2005: DAL; 2006–2007: Bank of PNG.

Appendix Table A5.11.2 Rubber production by sector, 1985–2001 (tonnes)

Year	Smallholder	Plantation	Total
1985	1,296	3,723	5,019
1986	1,556	3,549	5,105
1987	1,401	2,851	4,252
1988	1,449	3,472	4,921
1989	1,610	3,442	5,052
1990	1,616	1,607	3,223
1991	1,659	1,113	2,772
1992	1,745	2,122	3,867
1993	2,615	2,233	4,848
1994	2,899	2,124	5,023
1995	4,368	2,142	6,510
1996	4,896	2,243	7,139
1997	2,676	1,910	4,586
1998	2,779	1,876	4,655
1999	2,322	2,103	4,425
2000	2,283	2,150	4,433
2001	2,033	2,100	4,133

Source: DAL.

Appendix Table A5.11.3 Destination of rubber exports, 2004–2005

Destination	2004		2005	
	Volume (tonnes)	Value (kina)	Volume (tonnes)	Value (kina)
Australia	1,332	5,393,793	416	1,529,847
Belgium	42	12,020	448	1,746,409
France	375	1,459,783	875	2,494,296
Germany	1,769	3,437,387	1,581	6,908,478
Italy	116	134,021	396	1,756,426
Netherlands	219	1,153,013	454	1,841,962
Spain	125	143,131	124	461,771
Total	3,977	11,733,148	4,294	16,739,189

Source: DAL.

Appendix Table A5.12.1 Volume and value of tea exports, 1963–2006

Year	Volume (tonnes)	Value (K'000)	Year	Volume (tonnes)	Value (K'000)
1963	19	8	1985	7,025	13,330
1964	29	25	1986	5,322	7,133
1965	18	17	1987	5,553	5,571
1966	11	11	1988	5,829	6,438
1967	4	3	1989	5,447	6,036
1968	38	42	1990	5,375	6,651
1969	298	297	1991	4,700	5,300
1970	689	645	1992	5,600	6,600
1971	1,169	1,094	1993	6,400	7,200
1972	1,803	1,500	1994	3,400	4,200
1973	2,791	2,048	1995	4,200	5,400
1974	3,965	2,601	1996	9,300	12,700
1975	4,489	3,866	1997	6,500	10,400
1976	4,871	3,978	1998	6,600	18,900
1977	6,192	9,068	1999	8,200	19,000
1978	6,979	7,833	2000	8,500	20,400
1979	6,978	7,982	2001	8,800	22,000
1980	7,915	8,507	2002	5,200	18,545
1981	6,959	7,131	2003	6,600	20,411
1982	6,475	6,682	2004	8,100	22,769
1983	7,234	10,391	2005	6,934	20,223
1984	7,530	19,058	2006	6,507	20,991

Sources: 1963–1976: Territory of Papua and New Guinea Bureau of Statistics; 1977–1990: DAL (1992); 1991–2004: Bank of PNG; 2005–2006: Carpenter Estates.

Appendix Table A5.12.2 Destination of tea exports, 1992–2006 (K'000)^[a]

Destination	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Australia	3,840	3,792	2,377	2,992	7,036	5,824	10,546	9,880	10,404	6,789	5,448	1,013	776	860	839
Belgium	-	-	-	-	-	-	-	-	-	-	191	106	960	683	1,172
Canada	-	-	-	-	-	-	-	-	-	-	769	1,337	1,210	1,174	1,116
Chile	-	-	-	-	-	-	-	-	-	-	0	0	0	0	104
Fiji	-	-	-	-	-	-	-	-	-	-	0	100	65	63	33
Germany	-	-	-	-	-	-	-	-	-	-	1,385	1,597	2,669	1,861	3,089
India	-	-	-	-	-	-	-	-	-	-	1,326	2,207	2,440	2,087	1,939
Indonesia	-	-	-	-	-	-	-	-	-	-	1,020	1,625	2,032	1,818	980
Israel	-	-	-	-	-	-	-	-	-	-	0	34	32	0	0
Japan	-	-	-	-	-	-	-	-	-	-	200	140	0	37	0
Kenya	-	-	-	-	-	-	-	-	-	-	638	629	484	278	0
Malaysia	-	-	-	-	-	-	-	-	-	-	70	496	208	214	172
Netherlands	-	-	-	-	-	-	-	-	-	-	0	179	677	74	0
New Caledonia	-	-	-	-	-	-	-	-	-	-	6	6	6	0	0
New Zealand	395	268	269	270	635	186	813	756	612	-	55	92	133	520	589
Pakistan	221	157	168	194	508	279	662	950	1,020	-	0	527	159	258	347
Poland	-	-	-	-	-	-	-	-	-	-	619	1,058	1,529	0	0
Russia	-	-	-	-	-	-	-	-	-	-	1,413	3,499	4,165	5,925	6,507
Singapore	60	241	109	140	381	128	416	654	408	1,533	0	80	81	85	47
United Kingdom	420	1,014	202	356	889	837	1,493	1,140	1,836	6,570	2,555	3,597	3,625	3,389	2,043
United States	1,266	1,013	678	896	2,159	2,047	3,289	4,290	5,304	4,599	2,850	2,089	1,518	897	2,013
Others	310	697	397	551	1,092	1,099	1,682	1,330	816	2,409	-	-	-	-	-
Total	6,512	7,182	4,200	5,399	12,700	10,400	18,901	19,000	20,400	21,900	18,545	20,411	22,769	20,223	20,991

[a] 'Other' countries are not specified in the source data for 1992–2001.

Sources: 1992–2001: DAL (2001); 2002–2006: Carpenter Estates.

Appendix Table A5.13.1 Volume and value of balsa exports, 1996–2007

Year	Volume (m³)	Value (US\$)	Value (kina)
1996	2,706	1,186,788	1,571,280
1997	2,034	1,006,796	1,444,263
1998	3,570	1,648,549	3,394,870
1999	3,067	1,484,555	3,785,199
2000	2,668	1,268,310	3,500,718
2001	2,043	911,986	3,064,469
2002	2,700	926,260	3,599,922
2003	3,490	1,019,463	3,620,252
2004	3,755	1,168,339	3,767,620
2005	5,304	1,825,246	5,661,433
2006	8,197	2,852,079	8,716,623
2007	11,058	3,409,479	10,214,137

Sources: 1996–2002: ITTO ENB Balsa Industry Strengthening Project Phase 2; 2003–2007: PNG Forest Authority.

Appendix Table A5.13.2 Destination of balsa exports, 2000–2007

Destination	2000			2001			2002			2003		
	Volume (m ³)	Value (US\$)	Value (kina)	Volume (m ³)	Value (US\$)	Value (kina)	Volume (m ³)	Value (US\$)	Value (kina)	Volume (m ³)	Value (US\$)	Value (kina)
Australia	275	142,125	392,285	653	313,277	1,052,678	531	151,462	588,659	862	257,336	913,835
China	400	239,075	659,881	275	147,525	495,716	681	255,172	991,729	1,291	234,492	832,713
Germany	150	106,625	294,300	200	120,925	406,334	177	101,115	392,985	361	126,428	448,963
Hong Kong	0	0	0	54	15,460	51,949	54	17,032	66,195	64	23,038	81,811
Italy	0	0	0	577	205,703	691,206	552	193,023	750,187	30	138,903	493,263
Japan	0	0	0	3	435	1,462	26	8,970	34,862	50	17,250	61,257
Malaysia	0	0	0	1	1,136	3,817	9	5,338	20,746	4	1,156	4,105
New Zealand	0	0	0	0	0	0	51	10,804	41,990	27	6,148	21,832
Singapore	0	0	0	0	0	0	29	7,530	29,265	54	13,500	47,940
South Africa	0	0	0	0	0	0	27	14,850	57,715	18	5,760	20,455
Spain	0	0	0	25	8,750	29,402	107	43,283	168,220	243	87,885	312,092
Taiwan	50	20,375	56,238	25	8,375	28,142	0	90	350	58	21,261	75,501
Thailand	0	0	0	0	0	0	0	0	0	27	4,037	14,336
United Kingdom	1,793	760,110	2,098,013	230	90,400	303,763	404	107,521	417,882	401	82,269	292,148
Vietnam	0	0	0	0	0	0	52	10,070	39,137	0	0	0
Total	2,668	1,268,310	3,500,718	2,043	911,986	3,064,469	2,700	926,260	3,599,922	3,490	1,019,463	3,620,252

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Appendix Table A5.13.2 (continued)

Destination	2004			2005			2006			2007		
	Volume (m ³)	Value (US\$)	Value (kina)	Volume (m ³)	Value (US\$)	Value (kina)	Volume (m ³)	Value (US\$)	Value (kina)	Volume (m ³)	Value (US\$)	Value (kina)
Australia	895	280,960	906,030	1,015	342,447	1,062,181	1,239	405,563	1,239,496	1,529	404,094	1,210,587
Bahrain	0	0	0	0	0	0	27	10,476	32,017	0	0	0
China	954	252,156	813,144	898	336,614	1,044,088	2,232	803,880	2,456,846	4,778	1,409,478	4,222,522
Germany	378	112,455	362,641	324	123,795	383,980	270	95,580	292,115	1,161	393,885	1,180,003
Hong Kong	0	0	0	83	30,747	95,369	54	22,140	67,665	215	85,070	254,853
India	0	0	0	617	234,266	726,632	2,890	1,024,072	3,129,804	2,163	706,848	2,117,579
Italy	30	10,000	32,248	0	0	0	0	0	0	0	0	0
Japan	81	27,496	88,668	162	60,957	189,073	108	38,610	118,001	135	52,110	156,111
Malaysia	3	806	2,599	4	1,325	4,110	4	1,396	4,267	4	1,188	3,559
New Zealand	29	8,497	27,401	52	13,255	41,114	53	18,787	57,417	78	28,350	84,931
South Africa	0	0	0	0	0	0	27	8,640	26,406	0	0	0
Spain	918	347,650	1,121,090	1,566	504,827	1,565,841	648	223,640	683,496	0	0	0
Taiwan	38	12,972	41,832	54	21,600	66,998	27	10,665	32,595	27	11,070	33,164
Thailand	27	10,935	35,263	54	21,870	67,835	27	11,070	33,833	0	0	0
United Kingdom	375	96,859	312,348	354	99,474	308,542	429	124,810	381,449	320	106,300	318,454
United States	0	0	0	0	0	0	0	0	0	432	141,966	425,303
Vietnam	27	7,553	24,357	121	34,069	105,673	162	52,750	161,216	216	69,120	207,070
Total	3,755	1,168,339	3,767,620	5,304	1,825,246	5,661,433	8,197	2,852,079	8,716,623	11,058	3,409,479	10,214,137

Sources: 2000–2002: ITTO ENB Balsa Industry Strengthening Project Phase 2; 2003–2007: PNG Forest Authority.

Appendix Table A5.15.1 Volume and value of chilli and cardamom exports, 1971–2000

Year	Chilli		Cardamom	
	Volume (kg)	Value (kina)	Volume (kg)	Value (kina)
1971	19,800	10,845	–	–
1972	36,800	27,762	–	–
1973	42,500	31,964	–	–
1974	145,600	106,192	660	2,686
1975	154,400	124,716	6,640	28,579
1976	161,598	118,696	11,764	49,453
1977	76,022	114,000	3,765	38,000
1978	190,243	407,000	9,950	94,000
1979	236,673	400,000	9,704	87,000
1980	244,491	222,000	6,358	48,000
1981	265,883	248,000	10,259	45,000
1982	38,216	63,000	49,491	227,000
1983	9,589	20,000	80,388	493,000
1984	32,785	85,000	186,635	1,946,000
1985	18,470	56,000	323,981	2,360,000
1986	24,292	163,000	387,268	1,794,000
1987	75,920	144,000	364,396	1,158,000
1988	43,685	94,000	185,846	506,000
1989	75,295	220,000	156,540	367,000
1990	57,141	159,000	98,104	364,000
1991	32,995	60,000	47,624	154,000
1992	22,250	–	73,240	–
1993	27,280	–	75,820	–
1994	–	–	–	–
1995	–	–	–	–
1996	17,752	50,459	32,003	175,800
1997	4,665	17,225	17,431	89,025
1998	4,051	27,331	7,755	39,548
1999	7,237	16,964	–	–
2000	9,970	58,328	–	–

Sources: 1971–1976: Wyatt (c. 1978); 1977–1991: DAL (1992); 1992–1993: Waisime (2000); 1996–2000: National Statistical Office of PNG (NSO data are increasingly unreliable from 1998 onwards).

Appendix Table A5.16.1 Purchases of dried pyrethrum flowers, 1963–2006

Year	Purchases (tonnes)	Year	Purchases (tonnes)	Year	Purchases (tonnes)
1963	1	1977	201	1991	290
1964	15	1978	150	1992	271
1965	190	1979	172	1993	273
1966	288	1980	205	1994 ^[a]	?
1967	590	1981	252	1995–1999 ^[a]	0
1968	502	1982	245	2000	24
1969	396	1983	279	2001	9
1970	461	1984	300	2002	25
1971	360	1985	352	2003	46
1972	311	1986	327	2004	40
1973	255	1987	256	2005	37
1974	316	1988	232	2006	26
1975	333	1989	265		
1976	253	1990	281		

^[a] It is not known whether dried flowers were purchased in 1994, the year in which the extraction plant at Kagamuga closed. There were no purchases between 1995 and 1999.

Sources: 1963–1977: Anderson (c. 1978: Table 1) (data are for Australian financial years, that is, 1962–63 to 1976–77); 1978–1979: Carrad (1982:156); 1980–1993: DAL (1994); 2000–2006: Wakasa Mecksaeene, Wabag (pers. comm.).

Appendix Table A5.16.2 Volume and value of pyrethrum extract exports, 1967–1991^[a]

Year	Volume (kg)	Value (K'000)	Year	Volume (kg)	Value (K'000)
1967	25,800	390	1980	2,914	85
1968	27,100	417	1981	14,973	565
1969	20,300	313	1982	13,390	498
1970	21,600	332	1983	8,950	397
1971	18,600	286	1984	11,153	441
1972	14,200	227	1985	19,444	704
1973	11,800	192	1986	14,675	484
1974	14,400	217	1987	8,370	249
1975	14,800	190	1988	3,070	148
1976	12,800	194	1989 ^[b]	–	–
1977	9,120	145	1990	6,760	489
1978	5,737	118	1991	9,200	682
1979	4,960	202			

^[a] There have been some exports after 1991, according to National Statistical Office data. Small quantities of extract have been exported since 2003, including 4800 kg in 2006.

^[b] Pyrethrum extract was not exported in 1989.

Sources: 1967–1976: Anderson (c. 1978: Table 2) (data are for Australian financial years, that is, 1966–67 to 1975–76); 1977–1991: DAL (1992).

Appendix Table A5.18.1 Value of crocodile skin exports, 1958–1968, 1977–1991 (kina)

Year	Value	Year	Value	Year	Value
1958	134,000	1977	814,000	1985	2,370,000
1959	89,000	1978	1,231,000	1986	2,430,000
1960	116,000	1979	1,610,000	1987	1,879,000
1961	241,000	1980	1,620,000	1988	876,000
1962	500,000	1981	1,320,000	1989	929,000
1963	661,000	1982	2,341,000	1990	902,000
1964	902,000	1983	936,000	1991	872,000
1965	857,000	1984	2,295,000		
1966	982,000				
1967	866,000				
1968	491,000				

Sources: 1958–1968: Downes (1971); 1977–1991: DAL (1992).

Appendix Table A5.18.2 Number of freshwater and saltwater crocodile skins exported, 1997–2005

Year	Freshwater crocodiles		Saltwater crocodiles		Total
	Wild animals	Farmed animals	Wild animals	Farmed animals	
1997	28,800	3,900	2,900	5,700	41,300
1998	10,700	5,800	2,600	7,800	26,900
1999	11,700	3,600	1,900	7,300	24,500
2000	13,900	2,300	1,600	6,800	24,600
2001	20,400	0	2,600	7,800	30,800
2002	18,500	0	2,300	7,100	27,900
2003	17,500	0	2,800	4,800	25,100
2004	22,700	0	2,600	7,300	32,600
2005	17,800	0	4,600	5,800	28,200

Source: Department of Environment and Conservation (2007).

Appendix Table A5.18.3 Estimated honey production in Eastern Highlands Province, 1975–2007 (tonnes)

Year	Production	Year	Production	Year	Production
1975	25	1986	120	1997	30
1976	30	1987	98	1998	25
1977	38	1988	50	1999	25
1978	41	1989	60	2000	30
1979	50	1990	79	2001	37
1980	60	1991	60	2002	40
1981	65	1992	56	2003	45
1982	75	1993	42	2004	40
1983	80	1994	42	2005	42
1984	85	1995	42	2006	44
1985	95	1996	40	2007	40

Note: Production data include an estimated 20 tonnes/year sold in the informal sector.

Sources: Hardie et al. (2005) and Tella Loie, Department of Primary Industry, Goroka.

Appendix Table A6.7.1 Land settlement schemes, 1959–1981

Province	Name of settlement area	No. of blocks	Approx. total area (ha)	Average block size (ha)	Recommended activity	Year of allocation
Central	Boregaina	22	185	8.4	rubber	1959
Oro	Girua	10	125	12.5	cocoa/oil palm	1960
East New Britain	Warangoi	33	208	6.3	cocoa	1960
Central	Block 7 Cape Rodney	23	208	9.0	coconut/rubber	1961
Central	Dom, Cape Rodney	30	336	11.2	coconut/rubber	1961
East New Britain	Ilugi	52	372	7.1	cocoa/coconut	1961
Morobe	Situm	22	210	9.5	coconut	1962
Morobe	Gobari	8	97	12.0	coconut	1962
East Sepik	Sowam 1	17	299	17.6	coconut	1962
West New Britain	Dagi	58	705	12.1	coconut	1962
Central	Bereina	30	367	12.2	subsistence	1963
Central	Mori 1 Cape Rodney	103	1111	10.8	rubber	1963
Oro	Sorovi Jumburu	55	658	12.0	cocoa/oil palm	1963
East New Britain	Keravat	36	343	9.5	cocoa/coconut	1963
East New Britain	Tavilo	36	318	8.8	cocoa	1963
West New Britain	Lavilelo	22	243	11	coconut	1963
West New Britain	Tabai Rikau	62	688	11.1	coconut	1963
Central	Mori 2 Cape Rodney	130	1575	12.1	rubber	1964
Oro	Wanigela	84	801	9.5	coconut	1964
Morobe	Bumbu	7	74	10.5	coconut/cattle	1964
Morobe	Umboi	18	142	7.9	coconut	1964
East Sepik	Karawura	3	53	17.6	coconut	1964
Manus	Silin	28	320	11.4	coconut	1964
Manus	Logenbrowa	20	121	6.0	coconut	1964
Morobe	Wau 3 & 4	63	441	7.0	market gardening	1965
Western Highlands	Nondugl	39	183	4.7	tea	1965
Western Highlands	Kondepina	57	245	4.3	tea	1965
Manus	Bokeles	5	82	16.4	coconut	1965
Manus	Putjoliu	1	5	5.0	coconut	1965
New Ireland	Balgai	48	68	1.4	subsistence	1965
East New Britain	Crewder Island	2	34	17.0	cocoa	1965
West New Britain	Silanga	224	1781	8	cocoa	1965
West New Britain	Uasilau	110	913	8.3	cocoa	1965
West New Britain	Pangalu	22	232	10.5	coconut	1965
Central	Kubuna 1	27	356	13.2	rubber	1966
Central	Bailebo	110	1113	10.1	rubber	1966

... continued

Appendix Table A6.7.1 (continued)

Province	Name of settlement area	No. of blocks	Approx. total area (ha)	Average block size (ha)	Recommended activity	Year of allocation
Central	Laloki 1	50	111	2.2	market gardening	1966
Oro	Saga-Amada	37	385	10.4	rubber/cocoa	1966
Oro	Savaia	23	255	11.0	rubber/cocoa	1966
Morobe	Wau 1	68	520	7.6	market gardening	1966
Morobe	Wau 2	18	814	45.0	market gardening	1966
Manus	Ndromalmal	6	82	13.6	coconut	1966
Manus	Haunel	26	227	8.7	coconut	1966
Manus	Salesia	20	198	9.9	coconut	1966
Manus	Malai Bay	17	209	12.2	coconut	1966
East New Britain	Sunam	17	120	7.0	cocoa	1966
West New Britain	Bulu	16	177	11	coconut	1966
Bougainville	Wianin-Teanin	16	155	9.7	cocoa/coconut	1966
Bougainville	Kotstawan	3	22	7.3	cocoa/coconut	1966
Central	Merani Estate	17	103	6.0	coconut	1960, 1966
Gulf	Kufala	8	66	8.2	rubber	1967
Morobe	Webiak	29	338	11.6	market gardening	1967
Manus	Beheni	10	87	8.7	coconut	1967
West New Britain	Kapore	130	911	7	oil palm	1967
West New Britain	Tamba	193	1158	6	oil palm	1967
West New Britain	Sale Malasi	241	2554	10.5	coconut	1967
Central	Anieurebau	7	93	13.3	coconut	1963, 1967
Western Highlands	Kindeng West	214	862	4.0	tea	1966, 1967
Central	Baramata	5	60	12.0	coconut	
Oro	Girua Extension	23	214	9.3	cocoa/oil palm	1968
Morobe	Gobari Extension	12	135	11.2	coconut/cattle	1968
Morobe	Ali Walu	17	242	14.2	coconut/cattle	1968
Morobe	Wahu	15	191	12.7	coconut/cattle	1968
West New Britain	Sarakolok-Lakiemata	258	1801	7	oil palm	1968
Central	Kuriva	63	903	14.3	market gardening	1967, 1968
Southern Highlands	Pilibaru	5	68	13.6	mixed farming/ cattle	1969
West New Britain	Siki	27	310	11.5	cocoa/coconut	1969
Oro	Kokoda	26	266	10.2	rubber	1960, 1969
Gulf	Murua	53	606	11.4	rubber	1962, 1969
Central	Kubuna 2	78	1010	12.9	rubber	1970
Oro	Embi	14	1738	124.0	cattle	1970
Sandaun	Yalingi	55	660	12.0	coconut	1970

... continued

Appendix Table A6.7.1 (continued)

Province	Name of settlement area	No. of blocks	Approx. total area (ha)	Average block size (ha)	Recommended activity	Year of allocation
East New Britain	Vudal-Vunapaladin	175	2200	12.6	cocoa	1970
East New Britain	Mandress	96	1660	17.2	cocoa	1970
East New Britain	Japlik	44	710	16.0	cocoa	1970
West New Britain	Buvussi	321	1962	6.1	oil palm	1970
Western Highlands	Awalibu	3	178	59.0	mixed farming/ cattle	1971
Western Highlands [Enga]	Pawari	2	124	62.0	mixed farming/ cattle	1971
East New Britain	Nengmutka	40	600	15.0	cocoa	1971
West New Britain	Pota Galai	57	342	6	oil palm	1971
Oro	Butue	38	359	9.5	rubber/cocoa	1972
Oro	Kamondo-Pirive	27	258	9.5	rubber/cocoa	1973
East Sepik	Yauwosoru	19	107	5.6	coconut	1973
Sandaun	Sissano	7	62	8.8	coconut	1973
Western Highlands	Kagal 2	6	27	4.5	mixed farming/ cattle	1973
Western Highlands [Enga]	Paus	8	486	61.0	mixed farming/ cattle	1973
Manus	Saha	6	55	9.0	coconut	1973
Manus	Sopasopa	13	106	8.0	coconut	1973
Manus	Salmai	66	690	10.5	coconut	1973
West New Britain	Kavui	319	1905	6	oil palm	1973
Western Highlands	Koban	10	29	3.9	tea/vegetables	1974
Western Highlands	Rabe	10	36	3.6	tea/vegetables	1974
Western Highlands	Mt Ambra	5	478	95.6	mixed farming/ cattle	1974
Western Highlands	Pugmi Gaugwi	14	215	15.4	mixed farming/ cattle	1974
West New Britain	Galai	153	918	6	oil palm	1974
West New Britain	Lavilelo 2	12	108	9	cocoa/coconut	1974
East Sepik	Sowam 2	10	616	61.0	mixed farming/ cattle	1975
East Sepik	Chimbian-Timbunke	14	5194	371.0	cattle	1975
Sandaun	Marok	18	330	18.3	coconut	1975
West New Britain	Kavugara	157	1059	6.7	oil palm	1975
New Ireland	Danfu	22	206	9.4	cocoa	1976
West New Britain	Tiauru	225	1553	6.9	oil palm	1976
Oro	Isivini 2	144	1776	6.5	oil palm	1977
Western Highlands	Avi	119	555	4.7	tea	1977

... continued

Appendix Table A6.7.1 (continued)

Province	Name of settlement area	No. of blocks	Approx. total area (ha)	Average block size (ha)	Recommended activity	Year of allocation
Western Highlands	Madan	44	166	3.8	tea	1977
Western Highlands	Karpena	6	33	5.5	tea	1977
West New Britain	Wilelo 1 & 2	337	2202	6.5	oil palm	1977
West New Britain	Balimu	111	730	6.6	oil palm	1977
Oro	Ambogo	46	437	9.5	cocoa/oil palm	1960, 1977
Oro	Isivini 1	56	742	13.2	cocoa/oil palm	1961, 1977
Oro	Arehe	21	105	5.0	cocoa/oil palm	1962, 1977
Oro	North Sangara 1	15	164	10.9	cocoa/oil palm	1964, 1977
Oro	North Sangara 2	22	212	9.6	cocoa/oil palm	1964, 1977
Central	Laloki 2	3	75	25.0	mixed farming/ cattle	1978
Milne Bay	Wataluma	4	268	67.0	mixed farming/ cattle	1978
Oro	Igora	258	1707	6.6	oil palm	1978
Oro	Kepara-Pirive	51	482	9.5	rubber/cocoa	1978
East Sepik	Kanauki	17	4375	257.0	cattle	1978
New Ireland	Balgai 2	4	228	57.0	mixed farming/ cattle	1978
East New Britain	Kokopo	22	248	11.2	cocoa	1978
Oro	East Ambogo	36	397	11.0	cocoa/oil palm	1963, 1978
East Sepik	Gavien	234	3282	14.0	subsistence/ rubber	1967, 1975–78
Gulf	Beara	4	76	19.0	rubber	1979
Central	14 Mile	4	4	1.0	poultry/pigs	1979
Milne Bay	Giligili	7	68	9.7	mixed farming/ cattle	1979
Sandaun	Pes	84	958	11.4	subsistence	1973–79
West New Britain	Sale Sege	60	390	6.5	oil palm	1980
Central	Portion 393	70	455	6.5	rubber	1981
West New Britain	Salimalau	41	267	6.5	oil palm	1981
Oro	Afore	52	697	7.0	cardamom	1980, 1981

Note: This may not be a complete listing of all schemes. The spelling of some names varies from that used elsewhere, for example Japlik or Japalak in East New Britain Province.

The following oil palm schemes, some of which involved resettlement and some village blocks, were established between 1982 and 1995: at Tiauru, Lalopo, Silanga, Usailau, Salelubu/Malasi, Mamota, Kabaia and Soi in the Biiala and Kapiura areas of West New Britain Province; at Gurney, Hagita, Waigani, Naura and Sagarai in Milne Bay Province; and between Kapsu and Kabil, Lamasong and Lamerika, Ngavalus and Konos and Lavalai and Namasalong in New Ireland Province.

Source: Derived from Hulme (1982:38–42), who lists 130 land settlement schemes extracted from Montgomery (1979) and the Department of Lands, Survey and Environment File 145/55.

Appendix Table A6.9.1 Total population (including urban and rural non-village populations) living within a given distance of a national road, by province^(a)

Province	<5km	%	5–10 km	%	10–15 km	%	>15 km	%	Total population
Western	26,425	17.2	5,649	3.7	4,540	3.0	116,690	76.1	153,304
Gulf	25,434	23.8	8,372	7.8	2,143	2.0	70,949	66.4	106,898
Central	115,973	63.0	15,483	8.4	8,442	4.6	44,085	24.0	183,983
National Capital District	254,158	100.0	0	0.0	0	0.0	0	0.0	254,158
Milne Bay	44,497	21.1	5,760	2.7	5,676	2.7	154,479	73.4	210,412
Oro	67,086	50.4	17,049	12.8	9,173	6.9	39,757	29.9	133,065
Southern Highlands	356,883	65.3	96,729	17.7	37,284	6.8	55,369	10.1	546,265
Enga	184,437	62.5	45,407	15.4	16,619	5.6	48,568	16.5	295,031
Western Highlands	321,354	73.0	65,769	14.9	15,551	3.5	37,351	8.5	440,025
Simbu	187,740	72.3	32,319	12.4	14,651	5.6	24,993	9.6	259,703
Eastern Highlands	196,591	45.4	62,922	14.5	42,984	9.9	130,475	30.1	432,972
Morobe	158,351	34.4	23,750	5.2	32,884	7.1	245,727	53.3	460,712
Lae City	78,692	100.0	0	0.0	0	0.0	0	0.0	78,692
Madang	132,502	36.3	22,539	6.2	26,460	7.2	183,605	50.3	365,106
East Sepik	150,180	43.8	56,977	16.6	29,207	8.5	106,817	31.1	343,181
Sandaun	62,248	33.5	29,010	15.6	16,875	9.1	77,608	41.8	185,741
Manus	15,413	35.5	5,244	12.1	4,607	10.6	18,123	41.8	43,387
New Ireland	53,351	45.1	3,250	2.7	1,725	1.5	60,024	50.7	118,350
East New Britain	134,870	61.3	18,253	8.3	7,885	3.6	59,125	26.9	220,133
West New Britain	110,035	59.6	7,130	3.9	1,694	0.9	65,649	35.6	184,508
Bougainville	72,037	41.1	24,200	13.8	23,521	13.4	55,402	31.6	175,160
Papua New Guinea	2,748,257	52.9	545,812	10.5	301,921	5.8	1,594,796	30.7	5,190,786

^(a) Distance is a straight-line distance and does not take into account the local terrain.

Sources: NSO (2002); PNG Road Asset Management System.

Appendix Table A6.9.2 Length of national roads by road condition and province (km)

Province	Road condition			Total road length		
	Poor	Fair	Good	Poor	Fair	Good
Western	0	50	77	0.0	39.4	60.6
Gulf	33	73	88	17.0	37.6	45.4
Central	249	187	260	35.8	26.9	37.4
National Capital District	6	22	59	6.9	25.3	67.8
Milne Bay	67	39	120	29.6	17.3	53.1
Oro	4	26	172	2.0	12.9	85.1
Southern Highlands	271	237	131	42.4	37.1	20.5
Enga	61	163	12	25.8	69.1	5.1
Western Highlands	35	182	63	12.5	65.0	22.5
Simbu	156	36	7	78.4	18.1	3.5
Eastern Highlands	56	115	79	22.4	46.0	31.6
Morobe	45	166	234	10.1	37.3	52.6
Madang	40	234	182	8.8	51.3	39.9
East Sepik	65	128	201	16.5	32.5	51.0
Sandaun	146	48	99	49.8	16.4	33.8
Manus	23	52	9	27.4	61.9	10.7
New Ireland	5	31	547	0.9	5.3	93.8
East New Britain	15	138	30	8.2	75.4	16.4
West New Britain	10	178	258	2.2	39.9	57.8
Bougainville	156	170	40	42.6	46.4	10.9
Papua New Guinea	1,443	2,275	2,668	22.6	35.6	41.8

Note: The distances in this table are slightly different to those in Table 6.9.2. These differences occur in the original RAMS document. These data refer only to national roads and do not include district or rural roads.

Source: DWI (2001).