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**JAPAN INTERNATIONAL
COOPERATION AGENCY**

**Project Formulation Study of Education
in Papua New Guinea**



**National Research Institute
1998**



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List of Abbreviations

MTDS	Mid Term Development Strategy
NDOE	National Department of Education
JICA	Japan International Cooperation Agency
ADB	Asian Development Bank
ASSSP	Australian Secondary Schools Scholarship Program
AusAID	Australian Agency for International Development
B.ED	Bachelor of Education
CDD	Curriculum Development Division
CODE	College of Distance Education
CTC	Community Teachers' College
DSA	Disadvantaged School Allowance
EU	European Union
FMU	Facilitating and Monitoring Unit
GER	Gross Enrolment Rate
GTZ	German Development Agency
IDCE	Institute of Distance and Continuing Education
KLMD	Kiunga and Lake Murray District
LAMP	Literacy and Materials Production
M.ED	Master of Education
MSU	Measurement Services Unit
NCD	National Capital District
NEB	National Education Board
NGO	Non-government Organisation
PECE	Primary Education Certificate Examination
PETT	Pre-employment Technical Training
PIP	Public Investment Program
PIU	Planning and Implementation Unit
PMIC	Port Moresby Inservice College
RMPA	Regional Planning and Management Adviser
SER	Secondary Enrolment Rate
SERC	Special Education Resource Centre
SOTA	School of the Air
SSCEP	Secondary School Community Extension Project
TESL	Teaching English as a Second Language
TPPS	Tok Ples Pre-School
TTC	Technical Training Certificate
TVET	Technical and Vocational Education Training
UPE	Universal Primary Education
UPNG	University of Papua New Guinea

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1. The Education System in Papua New Guinea

1.1 The Focus of Education

The education structure in Papua New Guinea was inherited from the Australian colonial administration following Independence in 1975. The education system, over the past twenty years, has consisted of a one year *tok ples priskul* program, which was not mandatory, and was dependent upon the enthusiasm of local communities and education authorities to initiate it; an extensive community school structure consisting of some 2,830 schools in 1995 which offered grades 1 to 6. All teaching and learning materials in the community school were in the English language as were all subsequent levels of education. Enrolment was not compulsory and fees have been charged for most of this time; a provincial high school structure which offered grades 7 to 10 of which there were 141 high schools in 1995. There were four national high schools in 1995 which were the only institutions offering full-time grade 11 and 12 studies in Papua New Guinea. A distance education structure offered grades 7 to 10 at the College of Distance Education, and matriculation studies were offered at the Institute of Distance and Continuing Education at the University of Papua New Guinea.

This system, in 1995, was only able to offer a post primary education for about 1 in 6 Papua New Guinean children and less than 2% received a full secondary education. This structure was characterised by high attrition rates at the community school level and a serious access problem at the secondary level. The two major bottlenecks were at grade 7 and grade 11. Secondary education was further characterised by very high unit costs because the majority of secondary institutions were boarding schools.

The Department of Education's mission, as defined by the National Executive Council in 1994, was fivefold:

- to facilitate and promote the integral development of every individual;
- to develop and encourage an education system which satisfies the requirements of Papua New Guinea and its people;
- to establish, preserve, and improve standards of education throughout Papua New Guinea;
- to make the benefits of such education available as widely as possible to all of the people; and
- to make education accessible to the poor and physically, mentally and socially handicapped as well as to those who are educationally disadvantaged.

A great deal of time, effort and money has been expended on education services in the past twenty years in Papua New Guinea to improve performance in relation to: training programs for planners, administrators and teachers; curriculum revision and learning materials production; expansion of community and high schools; teacher conditions of employment; student participation and retention rates; student achievement; methods of assessing teachers and students; and community responsibility in education.

Despite these on-going efforts, large numbers of children have failed to enrol at all in community school since Independence. Universal primary education remains a long-term target for planners. Those children who do enrol in school must overcome significant hurdles in order to continue at school but many of them will withdraw along the way. Few children will complete a twelve-year cycle of education and educators have been forced to make a disturbing admission:

... the education which the vast majority of children who do not enter the formal employment sector receive, alienates them from the way of life of the people and does little to equip them with the knowledge, skills and attitudes necessary to contribute positively to community or national development. (National Department of Education 1991:7)

Access to higher levels of education in Papua New Guinea has been dictated, in the past, by performance in a series of examinations which are set at the completion of grade 6, grade 10 and grade 12. Progression from one level of education to the next has been dependent, in most cases, on academic merit and the availability of a place at the next level. Educational opportunities shrink at each succeeding level and, of the students who enter grade 1 at community school, just 2% of them will reach grade 12.

Educational services and opportunities are unequally distributed in Papua New Guinea. There are provincial disparities, gender differences and significant contrasts between rural and urban contexts in the provision of education. For instance, the population in urban areas mostly enjoys more educational opportunities and better staffed and equipped schools than their rural counterparts. There are distinct variations between rural and urban contexts in terms of access and the quality of educational facilities and opportunities provided. More males than females are enrolled in school. Low enrolment ratios and high drop-out rates are also features of education in Papua New Guinea (Guy *et al.* 1996). In 1994, the gross enrolment ratio for children within the age group of 7 to 12 years was 71% and more than 55,000 of those students withdrew from community schools in that year (National Department of Education 1994).

Apart from the poor performance of the formal school system, in terms of enrolment and participation of school age children, Papua New Guinea has a poor level of literacy attainment which is, in a sense, an accumulation of past, poor participation rates in all sectors of education. The average number of years of schooling per adult stands at a disappointing 2.1 years of schooling. The overall literacy rate stands at just 52%, but this is unequally distributed on a gender basis and males have a rate of 65% compared to the female rate at a low 38% (UNDP 1994). Research indicates that there are inter-provincial and inter-regional variations, as well as, differences between rural and urban environments.

Universal Education

Formal education in Papua New Guinea is a relatively recent event despite the fact that the London Missionary Society commenced basic education classes in the vernacular in the Port Moresby area in the 1890s. Missions and missionaries continued to dominate the education landscape for the next fifty years.

Government did not become significantly involved in education until after World War II. Primary schools were opened but curricula were mostly based on Australian conceptions and experience of teaching and learning. It must be remembered that high schools did not commence in the Highlands region until the 1960s.

Colonial authorities sought to introduce universal education but developmental constraints prevented this from happening. Universal primary education has long been called for by Papua New Guineans as opposed to an elitist form of education. Such principles are enshrined in the National Constitution but the reality is that Papua New Guinea has experienced an elitist form of education up until the 1990s despite rhetoric to the contrary.

Changing Issues

In the 1970s, relatively few children attended school and even fewer completed six years of basic education. It tended to be children in urban areas who had opportunities to attend school. Grade 6 graduates from primary school were able to find low level employment with the public service in Papua New Guinea. Independence in 1975 resulted in a large movement of expatriate personnel to their own countries which opened up middle and senior employment positions throughout the economy. The achievements of localisation during the 1980s and a slowdown in job creation have led to a high unemployment rate in the country. Grade 10 and grade 12 high school graduates find it difficult to secure employment in the formal sector in the 1990s. Resource development projects, which fuel the economic growth in the country, have not resulted in large-scale employment growth. Education has enhanced the aspirations and desire of people to move to urban areas and the poor opportunities for employment has added to issues of lawlessness and an increasing crime rate.

The influential Ministerial Committee Report on a Philosophy of Education for Papua New Guinea (1986) proposed a radical philosophy of education based on a notion of 'integral human development'. The Report, known as the 'Matane Report', which has been officially adopted by government, states:

This philosophy is for every person to be dynamically involved in the process of freeing himself or herself from every form of domination and oppression so that each individual will have the opportunity to develop as an integrated person in relationship to others. This means that education must aim for integrating and maximising: socialisation, participation, liberation, equality. (Matane Report 1986:6)

Matane also advocated the introduction of vernacular education programs and the training of 'new kinds of teachers' who would have a range of teaching strategies and methodologies and be more critical and reflective of their practice. Avalos (1989), McNamara (1989) and Ross (1991) have all documented how the teacher training model in Papua New Guinea continues to produce teacher centred and didactic teachers.

The national government, with assistance from UNDP and UNESCO, instigated an Education Sector Review (1991) consistent with its policy of integral human development to identify, document and develop strategies to rectify problems which had become endemic in the education system since independence. The Review confirmed inordinately high rates of attrition at the primary level ensuring that universal primary education was unlikely ever to be achieved; low transition rates at the post grade 6 and grade 10 levels; a largely irrelevant curriculum; weak management and administration; declining resource allocations combined with high unit costs and a severe imbalance in the allocation of funding to higher education at the expense of education at the lower levels. The Sector Review suggested that to do more of the same would be unlikely to have significant effect and would be prohibitively expensive. Consequently, an integrated package of reforms and strategies was developed which radically reconstructs the education system in its structure and curriculum and establishes a lower cost base at each level of education. The development occurred within the context of the new Organic Law on Provincial and Local Level Government, the Education (Amendment) Act 1995 (which established the new structure of the education system), The Teaching Service (Amendment) Act 1995, and medium term government policies (Medium Term Development Strategy 1997-2002) relating to manpower reduction, user pay and delivery of services at the provincial and district levels.

1.2 Reconstructing Education in Papua New Guinea

The reform structure, which is being progressively introduced over time, and is running parallel in many parts of the country with the education system described earlier. Thus one system is expanding and the other diminishing, until the reconstruction is complete. This has significant implications for curriculum development, materials production and distribution, and examinations and assessment. The reforms are planned to be fully operational throughout the country by the year 2004 although unofficially education authorities admit that the year 2010 is more realistic given constraints such as budget cuts and slow implementation progress of the reforms throughout the country.

Current Education Policy

There are five national goals and directives as stated in the national constitution which continue to underpin planning and development in Papua New Guinea. They are:

Integral Human Development

We declare our first goal to be for every person to be dynamically involved in the process of freeing himself or herself from every form of domination or oppression so that each man or women will have the opportunity to develop as a whole person in relationship with others.

Equality and Participation

We declare our second goal to be for all citizens to have an equal opportunity to participate in and benefit from the development of our country.

National Sovereignty and Self-Reliance

We declare our third goal to be for Papua New Guinea to be politically and economically independent, and our economy basically self-reliant.

Natural Resources and Environment

We declare our fourth goal to be for Papua New Guinea's natural resources and environment to be conserved and used for the collective benefit of us all, and be replenished for the benefit of future generations.

Papua New Guinea Ways

We declare our fifth goal to be to achieve development primarily through the use of Papua New Guinea forms of social, political and economic organisation.

Aims of the Education System

The government, consistent with the notion of integral human development espoused in the National Constitution and the Matane Report, has called for the education system to give value and status back to appropriate social attitudes, knowledge and skills which are relevant to community development. This must be supplemented with a degree of competence in English, mathematics and science in order to ensure the development of Papua New Guinean citizens whom:

- are committed to their personal development, and view education as a continuing life-long process;
- possess a productive work ethic, and value both rural and urban community development activities in the context of national development;
- are prepared for the realities of life in most communities. This covers approximately eighty-five % of the population. The major source of employment for these citizens will be their own subsistence and small-scale, community-based commercial enterprises. Their education will have prepared them and/or their parents for this reality; and
- have the capacity to participate in further training for human resource development needs. Some fifteen percent of the population will find paid employment in the slowly increasing government, business, and service industries. Their education will have provided them with the academic and technical skills to allow them to participate in tertiary education activities.

The Papua New Guinea National Education Plan (1995-2004) has been developed recently and represents a comprehensive policy statement of the rationale, structure, organisation and targets for school education in the country for the next decade. Three broad education programs have been formulated as a result. They are:

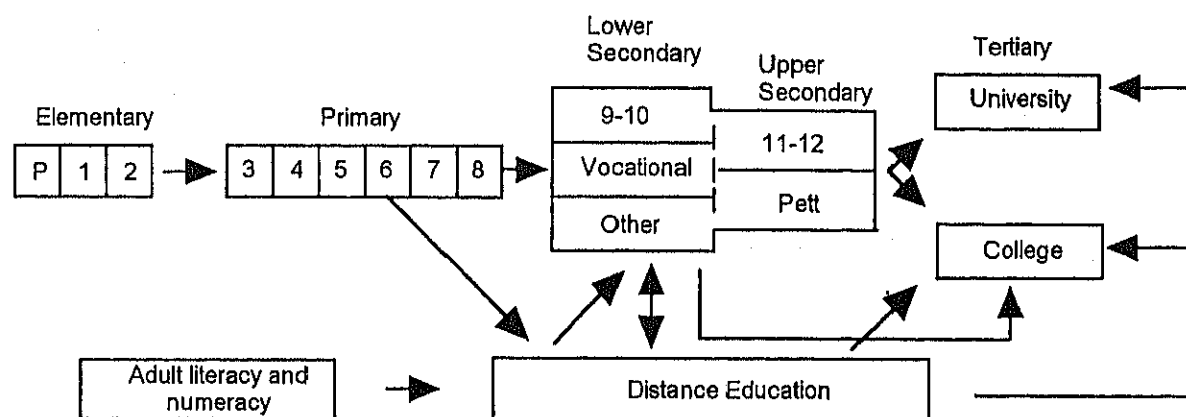
- the Literacy and Information Program which is intended to help people understand the changes that are occurring in contemporary society;
- the Relevant Education for All Program which is designed to develop a schooling system to meet the needs of Papua New Guinea and its people, which provides appropriately for the return of children to further education or training; and
- the Education Access and Expansion Program which provides basic schooling for all children.

A separate document, the Higher Education Plan (1990), provides a philosophy and action statements to satisfy high level human resource requirements of the economy in Papua New Guinea.

The Structure of the Education Reform

The reform is represented in the following diagram. It includes new language and terminology to describe the reforms.

Figure 1: The reform structure of educational services in Papua New Guinea



Notes:

1. Preparatory: Preparatory class with initial literacy and general education in the vernacular.
2. Vocational: Two years of lower secondary education with a vocational skills bias.
3. Other: A wide range of 'permitted' institutions which offer two or more years of secondary education, with a bias determined by the needs and opportunities of the areas which they serve.
4. Grades 11-12: Upper secondary education or Matriculation will develop particular curriculum biases, for example, academic, agriculture, technical, commercial and so on. Figure 1 provides for grades 11 and 12 in traditionally separate institutions, or added on to existing provincial high schools.
5. PETT: Pre-Employment Technical Training courses, which are for two years post-grade 10, and located in technical colleges.
6. College: Covers the more than sixty non-university 'tertiary' institutions which currently take mainly grade 10 leavers, but who are intending to raise their entry level to grade 12 as the pool of grade 12 leavers increases.
7. Distance education: IDCE, College of Distance Education, and other distance education providers.

Elementary and Primary Education

The restructured system will see a three-year Elementary period followed by six years of Primary Education, providing basic education for all children up to grade 8 within their local communities. Elementary schools are located in villages to minimise travel by small children and to acknowledge the local responsibility for this form of education. Relocating grades 1 and 2 in the elementary schools and grades 7 and 8 at the primary schools will reduce unit costs. Existing policy calls for a redirection of curriculum bias. A curriculum is proposed for the restructure of the basic education system through:

- initial literacy in a language the child speaks, and a transfer of these skills to English;
- an integrated activity-based elementary, Prep to grade 2, and lower primary education, grades 3 to 5, with a strong local vernacular component, and a tapering off into discrete regular subjects at the upper primary level, grades 6 to 8;
- a renewed emphasis on social, cultural, spiritual, ethical, and moral values in education; and
- a community orientation which emphasises those skills that children need to play a more productive role in the development of their own communities and participation in the manpower needs of PNG within the context of overall national development.

It is expected that there will be a 100% transition of children from elementary schools to primary schools. This initiative is already showing evidence of expanding quickly the number of places for

students who were previously denied access to grade 7 because of the shortage of grade 7 spaces in conventional high schools and does it at a relatively low cost as well.

It is anticipated that 50% of grade 8 students from primary schools will progress to grade 9 at secondary school. The remaining 50% of students will attend a local vocational training centre if one is available or attempt to gain one of the scarce formal employment sector jobs available in urban areas or seek informal work in their own village.

The reform system at present does not cater for the differences and problems that caring teachers must face when teaching the bottom and middle levels of each class, without allowing the most gifted students to become frustrated. New approaches to curricula will need to be introduced to cope with this emerging issue.

Vocational Education

The reconstructed system attempts to break down some of the old distinctions, allowing students a choice, according to their abilities, of several different routes to tertiary levels of education. Vocational centres and distance education institutions will offer courses equivalent to those currently followed in the formal high school system and a system of vocational secondary schools is under consideration.

Schools will be assisted to teach the students vocational skills, which they can use in their own environment. Greater flexibility and more choice must be given to schools in order to cater for the needs of the different regions of the country. Recent projects have provided limited assistance through grants and Kina for Kina subsidies for provincial high schools and vocational centres to purchase tools.

Vocational centres operate without any clear guidelines regarding courses. There is a lack of professionally produced curriculum materials providing a detailed program of learning that integrates practical and business skills, and the basic educational skills of literacy and numeracy. The transfer of responsibility for curriculum development in vocational centres from province to the Department of Education will lead to the development of a core curriculum.

Secondary Education

Secondary education consists of grades 9 to 12 in high schools and secondary schools. The College of Distance Education will also provide opportunities for student to undertake academic studies at grades 7 to 10.

With the expansion of access to grades 11 and 12 through the new secondary schools, the initial goal of a grade 12 education as the preparation of a limited number of students for further education, has broadened to include the preparation of students for other professional or sub-professional fields of study. A curriculum needs to be developed that provides greater choice and is based on the competence of the students, not just on the desired intake of the universities. Advanced courses to challenge the more able students need to be developed.

Overall, it is expected that some 30% of those students commencing elementary school will progress to grade 12 as a result of the reforms.

Higher Education

Higher education, as such, is not part of the present reforms taking place although there are significant changes taking place in terms of infrastructure development and training in several areas of higher education.

The Office of Higher Education, for instance, is upgrading the curriculum in the primary teachers' colleges throughout the country to take account of the changes that are taking place in curriculum content and learning at the new secondary schools.

Nonetheless, higher education is significantly constrained by dwindling budgets and many institutions have had to rationalise the kind and number of courses of study, which are available due to budget restrictions and a shortage of suitable staff.

Demand for higher education places continues to grow and the increasing number of grade 12 graduates from the additional enrolments in secondary schools will result in a significant bottleneck for places in higher education institutions over the next decade unless expansion in this sector of education takes place.

1.3 The Progress of the Education Reform

Language and Literacy

Many communities continue to be underserved by their schools and about 25% of potential students in 1997 still remain outside formal schooling. Consequently, many youths and adults do not possess the basic literacy and numeracy skills that are required for living effective lives. The potential development effects of education are being threatened by the growing ineffectiveness of primary education, which in turn compromises human capital development. Students who complete grade 6 are poorly prepared for secondary and tertiary education and are ill-equipped for life-long learning. Insufficient numbers of well-educated managers and teachers, and the lack of any effective participation by parents, contribute to this lack of development. The most obvious consequences of such a poor quality education are low completion and achievement rates.

The seeming cessation of fighting in the North Solomons province raises the serious issue of a generation of youth who have been denied any form of education and a significant challenge to raise literacy and numeracy standards for that group of people remains to be met.

Access and Equity

Enrolments in the primary sector have risen over the years as shown in the table below. Grade 1 enrolments have risen at a rate of about 4.2% annually. The eligible entry age for community school is the 7-9 year age group. This is an arbitrary age range, because provinces have enrolled students up to ten and even twelve years of age in grade 1.

Table 1: Total primary school enrolment by sex, 1985 to 1996

	Male	Female	Total
1985	197028	154143	351171
1986	206676	161779	368455
1987	208731	165268	373999
1988	216165	171717	387882
1989	227417	180331	407748
1990	224230	178718	402948
1991	229590	184754	414344
1992	240718	193414	433592
1993	257519	211000	468519
1994	273523	223222	496745
1995	285372	235646	521018
1996	294877	238705	533582

The primary school enrolment figures for 1997 are incomplete at the time of writing. Appendix 4 provides the figures that are available and records the figures on the basis of province, grade and sex.

From 1975 to 1990, the number of children enrolled in the community school system rose by about 70%. This gives an annual average increase of 4.2%. The decreases in enrolment in 1990 is assumed to be the result of the problems experienced in the North Solomons Province.

A further concern is the very large number of small schools in the country. The number of teachers within that school determines the level of a school, and, as will be seen later, these small schools perform poorly in the Primary Education Certificate Examination.

Table 2: Number of community schools by province and level, 1995

	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	N/K	Total
Western									N/A
Gulf	62	28	9	2				5	106
Central	100	47	13	9					169
Milne Bay	84	65	13	3	1				166
Oro	62	24	7	7	1			1	102
South H'lands	19	79	36	24	1				159
Eastern H'lands	41	120	34	14	3			1	213
Simbu	5	55	34	14	3	1			112
West H'lands	21	77	47	16	4				165
Sandaun	80	57	21	5				1	164
East Sepik	118	79	24	10	2			3	236
Madang	39	104	33	11	2		1	1	191
Morobe	72	148	33	17	7			1	278
West New Brit	78	36	21	9	1				145
East New Brit	47	65	17	14					143
New Ireland	45	69	6	4				1	115
Manus	45	16	3	1					65
North Sols	61	65	26	9				2	163
NCD	0	2	3	19	11		2		37
Enga	25	49	30	10	2				116
KLMD	32	12	5	4				1	61
PNG	1036	1194	415	202	38			17	2906

Enrolment fluctuations in some provinces are caused by irregular intakes into these very small schools that, characteristically, only have biennial or triennial intakes. Large numbers of these schools exist in remote regions, disrupting the orderly flow of students through the school system. Only about 40% of community schools in the country have annual intakes.

Female enrolment rates vary considerably between provinces, with consistent increases in coastal areas while rates tend to fluctuate in the highlands region.

There is no significant difference in the national rates between males and females in regard to retention, however, girls have consistently higher rates than boys in several provinces, most notably Milne Bay where female rates are higher in every five year block since 1983. It is noteworthy that kinship systems in Milne Bay are primarily matrilineal and the province has a century-old tradition of mission education for girls and women.

The biggest discrepancy between male and female retention rates is found in Simbu province, where the retention of male students is considerably higher than females at an average of 7.1% from 1983 to 1994. Significantly, the five-year block between 1984-1989 reveals higher rates for females in eleven provinces, with the national average being a difference of 1.7%. Even Simbu province shows a narrowing of the gap between male and female rates for this time block, with only 0.1% difference. It would be interesting to identify the factors that contributed to this noticeable increase at the time, especially since there was a reverse of the situation in the following time blocks through to 1994.

Disparity between provinces has always been recognised, but now there is a growing realisation that there are significant disparities between districts and areas within a given province such as Karamui in Simbu.

Inter-grade retention rates reveal that, like the overall trend, the transition between grades 1 and 2 is the most serious point of attrition for female students. The transition between grades 5 and 6 is also high but this attributable to the fact that it is a terminal point and most students are aware of their progress and likely success in the grade 6 examinations and are likely to drop-out rather than face the humiliation of failure at the examinations. This is likely to change with the progress of the reform and the automatic progression of students from grade 6 to grade 7 in future.

The problem of low female enrolment and retention in community schools has been the subject of several important studies (Yeoman 1987; Tawaiyole and Weeks 1988; AusAID 1995). All of the studies identified cultural attitudes, and the effect they have on the level of parental support and encouragement for girls' participation, as the single most important factor affecting female enrolment and retention. The largest survey, conducted in 1985 with a sample size of 1000 individuals in 16 provinces, revealed three fundamental factors, as follows:

- negative attitude of parents, especially fathers, with regards to the cost effectiveness of personal investment in a daughter's education;
- teachers' level of skill, professional commitment, and ability to create a stimulating learning situation; and
- individual girl's vision of her role, status, and potential, and her motivation to succeed (Yeoman 1987:108).

The percentage of women in the teaching force has risen slightly over the period, although again these figures hide wide provincial variations. These differences are shown for the 1995 figures in Table 3. More than 50% of the primary school teachers in the National Capital District and New Guinea islands are female. Provinces in the Highlands region have by far the smallest percentage of female teachers.

Table 3: Primary school staffing by sex and province, 1996

Province	Male	Female	Total	% of females
Western	284	80	364	22.0
Gulf	257	89	346	25.7
Central	411	237	648	36.6
Milne Bay	417	323	740	43.6
Oro	242	181	423	42.8
Southern H'lands	1023	216	1239	17.4
Eastern Highlands	725	444	1169	38.0
Simbu	683	232	915	25.4
Western H'lands	763	347	1110	31.3
Sandaun	499	147	646	22.8
East Sepik	688	326	1014	32.1
Madang	821	341	1162	29.3
Morobe	1035	561	1596	35.2
West New Britain	393	326	719	45.3
East New Britain	365	436	801	54.4
New Ireland	257	263	520	50.6
Manus	97	121	218	55.5
North Solomons	278	358	636	56.3
NCD	227	451	678	66.5
Enga	624	133	757	17.6
KLMD	194	68	262	26.0
PNG	10283	5680	15963	35.6

Figures produced in 1995 also show the number of non-teaching, head teachers by sex and province. These are head teachers of the largest schools in the country. Out of 208 of these head teachers only 14 were women - less than 7%. Even in the National Capital District where about two thirds of the teachers are women only about one quarter of the head teachers - 8 out of 31 - are female. It is clear that even though increasing numbers of women are in teaching they are not gaining the promotions to higher levels. This gender imbalance is even more pronounced amongst the Inspectorate.

It is important to note in the debate about access to, and equity in, education services in Papua New Guinea that it is not just females who have been traditionally denied opportunities to benefit from education. There are other disadvantaged groups such as those affected by rural/urban income differences, squatters in urban areas, and refugees in Kiunga and Vanimo.

There has been a scale of disadvantaged provinces for many years. The High Schools Expansion program looked at areas of low enrolment and retention rates. There has also been an allowance of K200 per year to encourage teachers to work in isolated areas although this incentive has not been increased for the past twenty years.

Table 4: Gross enrolment rate, 1983 - 1996

	Male	Female	Total
1983	68.4	56.2	62.6
1984	72.1	59.8	66.2
1985	72.1	61.1	66.8
1986	75.0	63.5	69.5
1987	75.1	64.3	69.9
1988	77.0	65.7	71.5
1989	80.0	67.6	74.0
1990	68.1	64.2	66.3
1991	68.3	64.9	66.7
1992	69.9	66.5	68.3
1993	71.5	70.9	72.1
1994	75.1	72.5	73.9
1995	75.9	74.1	75.1
1996	77.7	73.7	75.9

The Gross Enrolment Rate (GER), the commonly used indicator to measure access, has risen although recent increases have not been as much as had been hoped. Figures from 1990 onwards use 1990 population estimates, whereas earlier years use projections from the 1980 census. The figure falls well short of the Government's stated objective of Universal Primary Education.

Enrolment rates, both gross and secondary, are severely affected by two major problems within the education system as it stands. These two problems are retention at the primary level, and access at the post primary level.

The major problem within the secondary sector has been access. The number of schools in the country has risen considerably since the early 1980s but this has not had the effect of raising the enrolment rate to any great extent. The growth in population has been more than enough to account for the new places being created.

Student enrolment rose by about 40% during the 1980s giving an annual grade 7 enrolment increase of about 4.2%, although this disguises great variations between provinces.

Table 5: Gross enrolment rates by sex and province, 1996

	Male	Female	Total
Western	87.2	89.9	88.5
Gulf	92.9	87.7	90.6
Central	84.4	86.1	85.2
Milne Bay	76.5	81.6	78.9
Oro	72.7	71.6	72.2
Southern Highlands	57.1	59.4	58.1
Eastern Highlands	86.1	88.0	86.9
Simbu	100.5	91.7	96.4
Western Highlands	94.2	63.8	77.8
Sandaun	76.1	77.3	76.6
East Sepik	77.3	74.3	75.9
Madang	71.3	74.7	72.7
Morobe	83.7	79.6	81.8
West New Britain	86.8	73.4	80.6
East New Britain	78.4	76.2	77.3
New Ireland	80.1	79.4	79.8
Manus	89.5	86.8	88.2
North Solomons	56.2	87.3	68.1
NCD	71.4	69.2	70.3
Enga	71.8	38.3	56.5
KLMD	97.4	91.4	94.6
Papua New Guinea	77.7	73.7	75.9

Female enrolment has been slowly increasing in provincial high schools although 1996 shows a decline in female enrolments and the gross enrolment rate for females. However, by 1989, it still represented only 43.3% of total provincial high school enrolments. In general, the coastal provinces have higher rates of female participation although the Eastern Highlands and Simbu provinces have made the greatest advances over recent years.

Table 6: Total provincial high school enrolment by sex, 1985 to 1996

	Male	Female	Total
1985	29476	16841	46317
1986	29920	17379	47299
1987	331617	18149	49766
1988	31816	19160	50976
1989	33412	20082	53494
1990	32043	20512	52555
1991	32464	21864	54328
1992	32816	22254	55070
1993	36813	24957	61770
1994	39582	27367	66949
1995	41566	28641	70207
1996	41849	28118	69967

The total high school enrolment numbers for 1997 are incomplete at the time of writing. Appendix 5 provides figures that are available and records them on the basis of province, grade and sex.

The transition rate into grade 7 has remained fairly constant and this has meant that the Secondary Enrolment Rate has not risen a great deal. Only about one in six of the age group could be offered a place in grade 7 before the recent reforms were introduced. Central to the problems of further expanding

and making the sector more efficient during the 1980s was the underfunding of the system. The government had not been able to keep pace with the increase in population and had trouble in adequately funding the sector.

Selection to grade 7 in the high schools is taken at the provincial level and is based solely on the Primary Education Certificate Examination (PECE). In some provinces there are not enough spaces to cater for the children that reach the 'pass' mark, as recommended by the Measurement Services Unit, in the two basic skills papers of English and Mathematics. This has been a particular problem in the National Capital District. In other provinces, Gulf being the most singular example, there are not enough children with this pass mark to fill the available places. Students who complete grade 6 within the primary schools progress automatically into grade 7.

The recent rises have been due to the introduction of grades 7 and 8 within primary schools.

Table 7: Grade 7 enrolment by type of school

	1992		1993		1994		1995	
	Male	Female	Male	Female	Male	Female	Male	Female
Primary	0	0	313	268	2631	2100	3802	3153
Prov. high schools	10575	7140	11303	7729	11215	7751	12147	8078

As in primary education enrolment rates are the major measure of access. In this case the Secondary Enrolment Rate is used. This rate is the number of students enrolled in the high schools as a percentage of the 13 to 16 year age groups. The figures in Table 8 include grade 7 and 8 classes enrolled at the primary schools.

Table 8: Secondary enrolment rate by sex 1983-1996

	Male	Female	Total
1983	16.4	10.1	13.4
1984	16.9	10.6	13.9
1985	17.4	10.8	14.2
1986	17.4	11.0	14.3
1987	18.1	11.3	14.8
1988	18.0	11.7	15.0
1989	18.8	12.2	15.6
1990	17.6	13.1	15.5
1991	17.4	13.7	15.7
1992	17.5	14.3	15.9
1993	19.1	15.1	17.2
1994	21.3	17.4	19.5
1995	22.9	19.0	21.1
1996	24.2	19.8	22.2

The rate rose slightly during the 1980s, although not as much as might have been expected given the rapid increase in the number of high schools being built. The comparatively sharp rises in the early 1990s can be attributed to the growth in grade 7 and 8 classes in the primary schools. As with the Gross Enrolment Rate, these national figures hide wide differences between the provinces. The Highlands provinces have noticeably larger discrepancies between the male and female secondary enrolment rates, although these differentials have narrowed over recent years. This is despite the fact that all provinces have done away with the quota system for girls selection into grade 7 that was largely used in the 1970s and early 1980s. In general, there are larger discrepancies between boys and girls at the secondary level than there are in the primary sector.

Table 9 shows the percentage of girls selected for grade 7 in the high schools. The figure has remained at around 40% since the late 1980s. It can be expected that there will be a greater percentage of girls in grade 7 as the primary school system allows for automatic progression from grade 6.

Table 9: Females selected for grade 7, 1983-1995

Year	% female
1983	36.3
1984	37.5
1985	36.6
1986	37.5
1987	35.9
1988	40.2
1989	38.8
1990	39.3
1991	40.8
1992	40.4
1993	40.6
1994	40.9
1995	39.9

The problem of access to Upper Secondary education, grades 11 and 12, is even more pronounced than that of access into grade 7. There were only four national high schools until 1996. Passam National High School opened in 1978, and was the last such institution to be constructed until the opening of the Port Moresby National High School in February 1996. The only increase in access to grade 11 during the intervening period has been an intake rise from 200 to 250 in each of the four schools, and the introduction of the Australian Secondary School Scholarship Program (ASSSP) that catered for about 200 students per year. There are also a small number of students benefiting from a similar scheme operated in New Zealand by the New Zealand Overseas Development Association (NZODA).

The introduction from 1993 of secondary schools offering grades 11 and 12, based on the reorganisation of provincial high schools, has dramatically increased access opportunities. It is the intention of Government that there be one such school in each province. Meanwhile, the ASSSP is being phased out because of these new initiatives.

Table 10: Female enrolments in grade 11, 1983-1995

Year	% female
1983	24.9
1984	26.8
1985	27.2
1986	27.5
1987	26.1
1988	27.8
1989	28.5
1990	28.4
1991	28.6
1992	29.2
1993	29.4
1994	31.8
1995	31.5

The number of females participating in upper secondary education has also been distressingly low. In the national high schools only about 30% of students have been girls. It is expected that female

participation will improve with the opening of Secondary Schools in the provinces offering grades 11 and 12. The ASSSP has ensured that 50% of those benefiting from this program are girls, which has in a small way helped the problem. Table 10 shows the percentage of girls entering grade 11 in either the National High Schools or the Secondary Schools. The percentage appears to be rising.

Age of Entry

There is a wide age disparity among primary school pupils. This age disparity has the potential to skew the figures for the GER considerably. This is because of the large number of children outside the 7 to 12 year age group being included in the grade 1 to 6 enrolment. The Actual Enrolment Rate (AER) can not be calculated until the age of all school children is known. It is to be hoped that over a period the AER will become closer to the GER.

There are a number of reasons why children enrolled might be outside of the 7-12 age group:

- not enough space to enrol in grade 1 classes - this is the case in urban areas, particularly Port Moresby;
- no grade 1 classes at the school - this is often the case in many rural schools. Only about 40% of schools in the country have annual intake patterns; and
- parental attitudes - there is evidence, largely anecdotal, that some parents consider the official age of entry to school as being 'too young' and so hold them back for a year or two. One reason for this could be the distance that children need to walk to school.

The official entry age to grade 1 is seven years old. Details from a 1988 survey are shown in Table 11. This shows that many of the children who are in primary schools are overage. Overage students (10-12 years of age or older), representing about 23% of total enrolments continue to enrol in grade 1. Seven year olds represented less than twenty-five % of the children enrolled.

Table 11: Composition of Grade 1 enrolment, by age, 1988

Age	% of grade 1 enrolment
7	22.54
8	29.54
9	23.04
10	12.45
11	5.08
12+	5.23
Total	97.88

Source: Angus Ross Grade 1 survey 1988.

Retention

Table 12: Community school retention, 1983 to 1990 cohorts

Cohort	Male	Female	Total
1983-1988	62.1	62.2	62.1
1984-1989	60.1	61.8	60.9
1985-1990	59.0	56.9	58.1
1986-1991	56.1	55.6	55.9
1987-1992	57.7	55.4	56.7
1988-1993	56.9	55.7	56.4
1989-1994	57.0	55.9	56.5
1990-1995	62.6	60.3	61.6

The single biggest problem in primary education is the retention rate. This has slowly been dropping and has now reached the stage whereby almost half the children who start grade 1 drop out before completing grade 6.

These figures, as is frequently the case, hide many differences between provinces. The figures for the 1990 cohort, who completed grade 6 in 1995, are shown in the following table.

Table 13: Retention rates by sex and province, 1990 cohort

	Male	Female	Total
Western	63.9	60.7	62.4
Gulf	69.9	68.3	69.2
Central	64.2	62.6	63.5
Milne Bay	71.0	74.3	72.6
Oro	49.0	54.9	51.6
Southern Highlands	64.1	59.8	62.2
Eastern Highlands	46.4	41.5	44.2
Simbu	58.7	31.3	50.8
Western Highlands	47.6	44.7	46.3
Sandaun	56.3	53.4	55.0
East Sepik	62.7	59.3	61.1
Madang	71.6	70.3	71.0
Morobe	64.9	60.9	63.1
West New Britain	66.8	73.9	70.0
East New Britain	62.9	63.8	63.3
New Ireland	62.2	65.2	63.6
Manus	72.2	76.4	74.1
North Solomons	-	-	-
NCD	86.1	83.7	85.0
Enga	44.6	40.4	42.9
KLMD	67.4	65.0	66.3
Papua New Guinea	62.6	60.3	61.6

Note: There are no figures for the North Solomons Province because there was no intake reported in 1990.

The reasons for very low retention rates are many and varied although the language of instruction is considered to be a major contributing factor.

Retention is not as much of a problem in secondary education as in primary. Approximately 70% of the students that start grade 7 complete grade 10. Male students have slightly better retention rates than females. Possible reasons for this could be domestic commitments, marriage, or simply because girls, or their parents, see little value in pursuing their education to a higher level. School fees are often cited as a reason for students dropping out of high school.

The majority of high schools in the 1970s operated a grade 8 leaver system which meant that only about 70% of students progressed from grades 8 to 9. This selection was performed on a school by school basis and clearly had an effect on overall retention, or high school completion rates. A number of provinces still operate a grade 8 leaver system, New Ireland and Morobe amongst them, although the majority have been embarking on programs to 'block up' all of their high schools. Blocking up means that all children that start grade 7 will have an opportunity to complete grade 10.

Retention is not considered a problem in the Upper Secondary sector with only about 5% dropping out in grades 11 and 12.

Transition Rates

A further reason for the high attrition rate could be the comparatively low transition rates between the levels of education as shown in Table 14. There has always been a huge institutionalised push out between grades 6 and 7. It has long been a government objective to raise the transition rate to 50% but this has not been achieved despite opening many high schools.

Table 14: Grade 6 to 7 transition, 1987 to 1994

Cohort	Male	Female	Total
1987-1988	40.1	34.2	37.5
1988-1989	38.4	31.4	35.5
1989-1990	36.8	29.9	33.8
1990-1991	37.3	33.3	35.3
1991-1992	41.9	35.9	39.3
1992-1993	43.1	38.8	41.3
1993-1994	49.2	44.1	46.9
1994-1995	50.5	45.7	48.4

Table 15: Grade 6 to 7 transition by sex and province, 1994 to 1995

	Male	Female	Total
Western	34.4	28.5	29.0
Gulf	39.2	49.6	43.4
Central	46.9	44.5	45.8
Milne Bay	38.4	38.2	38.3
Oro	55.2	57.5	56.2
Southern Highlands	61.3	53.3	57.9
Eastern Highlands	39.8	30.4	36.0
Simbu	66.6	46.8	58.3
Western Highlands	39.2	28.8	34.8
Sandaun	39.5	31.1	36.2
East Sepik	43.6	36.7	40.4
Madang	48.3	48.0	48.2
Morobe	39.6	34.0	37.2
West New Britain	82.2	78.8	80.7
East New Britain	48.3	47.1	47.7
New Ireland	73.2	66.5	70.0
Manus	63.8	62.6	63.2
North Solomons	52.7	52.0	52.3
NCD	44.8	45.5	45.2
KLMD	47.4	42.3	45.2
Papua New Guinea	50.5	45.7	48.4

The rises in recent years are due to the introduction of grades 7 and 8 in the primary schools.

One of the major concerns expressed during the Sector Study was that of access to the upper secondary level of education. The transition rate remained relatively constant throughout the 1980s with recent rises being due to the introduction of grades 11 and 12 in the secondary schools.

Teacher/pupil Ratios

One of the major measurements of the internal efficiency of an education system is that of the teacher pupil ratio. At the primary school level teachers are deployed at the rate of one teacher per class. The

size of the class is immaterial and provinces lay down minimum grade 1 class sizes. This means that many schools only have an intake once every two, three or even four years.

The teacher pupil ratio at the primary level has increased marginally over the last ten years. The national average, however, conceals the wide variation across the country from a high of over 40 in the NCD and some Highlands provinces to the low 20s in Manus and New Ireland. Variations are inevitable given the highly dispersed population and rugged terrain of Papua New Guinea which makes it difficult to increase class size in some of the more remote areas of the country.

Table 16: Teacher pupil ratios by province, 1992 to 1996

Province	1992	1993	1994	1995	1996
Western	24.7	28.8	22.6	26.9	28.1
Gulf	27.9	29.5	31.8	32.8	32.6
Central	33.4	32.6	35.0	35.4	33.7
Milne Bay	31.0	30.8	30.6	32.2	29.5
Oro	32.8	34.2	35.0	35.1	34.7
Southern H'lands	31.9	33.6	36.2	37.3	34.9
Eastern Highlands	31.6	40.6	35.3	35.7	35.1
Simbu	34.2	32.5	31.5	32.7	30.6
Western H'lands	34.5	35.5	36.3	34.0	34.2
Sandaun	28.3	28.7	28.9	28.9	29.8
East Sepik	30.3	31.4	33.0	37.3	32.5
Madang	32.9	33.6	32.7	33.3	32.3
Morobe	35.2	36.1	36.5	36.6	34.7
West New Britain	27.2	28.6	29.8	32.9	28.0
East New Britain	32.3	33.1	31.9	33.2	33.3
New Ireland	24.2	23.8	24.8	25.6	25.7
North Solomons	32.1	31.0	32.0	31.9	30.9
NCD	39.5	39.6	41.4	41.2	39.1
Enga	28.9	43.2	41.5	34.6	35.8
KLMD	27.7	36.6	38.8	39.4	33.8
PNG	31.7	33.5	33.4	33.9	32.7

The wide range in teacher pupil ratios arises for a number of reasons. Firstly, there are many more remote schools in some provinces than others making it very difficult to staff such schools satisfactorily. Secondly, in recent years there has been a greater tendency for teachers to return to their home provinces. This has led to severe shortages in some places and surpluses in others. Although it would be unrealistic to expect a constant ratio across the whole country efforts are being made to narrow the gap. Two major strategies could be multigrade teaching and the Disadvantaged School Allowance (DSA).

Multigrade teaching should mean that more efficient use could be made of teacher resources in certain provinces. The number of multigrade classes has risen over the last few years from 101 in 1993 to 232 in 1995. The cause of this rise, however, has been a lack of teachers rather than a conscious decision to improve ratios through rationalisation. In 1995 there was opportunity for a further 176 multigrade classes even allowing for fairly strict criteria - not including grades 1 or 6, and with a total student number of 36 or less.

A further advantage of the institutionalisation of multigrade teaching would be that it would allow annual intakes in all schools. This, it is hoped will help in the improvement of retention rates as well as the teacher pupil ratio.

The Disadvantaged School Allowance, first introduced in 1975, needs to be further strengthened to allow for greater mobility of teachers both between and within provinces. The DSA was set at K200 in 1975 and is still at the same level twenty years later.

Staff is deployed, supposedly, at the rate of 1.5 teachers per class at junior high schools. This means that if classes are of 40, the teacher pupil ratio will be approximately 1:26. This figure has remained fairly constant over the period although it should be stressed that a number of provinces are significantly overstaffed. In 1995 it was estimated that there were about 80 teachers more than required in the provincial high schools and secondary schools.

As high schools have started offering grades 11 and 12 the formula for calculating the number of staff that should be in schools has altered somewhat. Schools should have 1.75 staff for each grade 11 and 12 class.

The teacher pupil ratio has been constant at about 1 to 18.5. Teachers are allocated to schools at the rate of approximately 1.75 per class. Recommended class size is 30 in grades 11 and 12.

Table 17: Upper secondary school teacher/pupil ratios, 1992 to 1995.

Year	Teacher/pupil ratio
1992	18.9
1993	18.5
1994	19.0
1995	17.0

Vocational Education

Provincial high schools currently prepare students for academically based grade 10 examinations. The most notable attempt to mitigate the disadvantages of this system was the Secondary Schools Community Extension Project (SSCEP) which began in 1979 in five pilot schools. SSCEP schools retained the curriculum of the four core subjects but taught them a different way. The emphasis was on integrating core subjects with practical activities which were relevant to community and socio-economic contexts in Papua New Guinea. SSCEP has been the most closely evaluated pilot program ever introduced in Papua New Guinea. It is considered somewhat as a failure because it has not had the long term effects on the system that were intended. The project ended in 1985, and since then the underlying principles have been largely lost in the broader system. Despite this, Crossley and Vulliamy (1989) found that SSCEP schools achieved similar academic results to conventional high schools at the grade 10 examinations with the added advantage of providing students with skills and knowledge relevant for rural life and the informal employment sector. Criterion-referenced assessment of practical subjects is resulting in the development of more appropriate assessment and certification procedures. Its failure has been documented (Vulliamy 1980; Currin 1981; Stanton 1980) in terms of:

- parents perceived SSCEP as an inferior form of education to that offered in conventional high schools which resulted in a lack of community support for the initiative;
- the large amount of funds expended on SSCEP in the pilot phase could not be sustained by the national government at the time that SSCEP was to be instituted on a national basis;
- the school based curriculum development under this project was not successful requiring a serious review of how this could be done in future;
- relatively poor co-ordination between educational administrators and inspectors and the implementation team;
- in-service opportunities for SSCEP teachers became fragmented over time; and
- there was a lack of continuity amongst teachers involved with SSCEP schools.

Vocational centres

Vocational education has long been the poor relation of the education scene in Papua New Guinea. Vocational centres are seen by many as being second class high schools. Most of the vocational centres established in the country are located in rural areas and many are mission agency initiatives. In contrast to other areas of the education system there are many single sex institutions amongst the vocational

centres. Their training programs are oriented towards the improvement of living conditions and traditional agriculture, the needs of small rural workshops, the handicraft sector, the possibilities of self-employment in informal economic activities and, particularly in urban areas, for employment in the private sector.

The problems of the vocational centres are many and varied but revolve around the low status in which they are held. A selection of major problems that have affected the centres and that were identified by the Education Sector Resources Study (1995) are:

- their terminality. The system does not allow for vocational centre graduates to move on in the education system, for example to technical colleges;
- the lack of a national curriculum, standard assessment systems and certification. Each centre produces its own certificates which may have local acceptance but are not recognised nationally;
- the low priority placed on centres by provincial governments. This is one reason why the church agencies administer a large number of the centres and why many centres are characterised by poor teaching facilities and equipment;
- the lack of adequate teacher training opportunities. This is a particular problem for male instructors and has led, inevitably, to a shortage of qualified teaching staff. The majority moves into teaching from a trade background and many never undergo formal teacher training;
- wide disparities in the quantity and quality of vocational education, with the level of skills of graduates not comparable between centres, and not up to the standard required to operate effectively within a given trade; and
- there is little linkage between vocational training and the needs of the labour market.

Enrolment

Despite the many problems noted enrolment has, however, continued to rise over the years and there are a number of fine examples of vocational centres around the country. Policies vary from province to province regarding the age of entry into vocational centres, but the majority of students enrolling are grade 6 leavers who have spent a year or so in the village. As the education reform proposals become implemented, increasingly more students entering the centres will be grade 8 leavers.

Enrolments have been characterised by dramatic fluctuations and irregular intake patterns. These fluctuations possibly reflect the fact that provinces do not see vocational education as being a priority area.

Female participation has not been particularly good in vocational centres. The best vocational centres for girls tend to be church-run and single-sex institutions.

There is great variation in the size of vocational centres. There are a number of large, usually urban, centres that are able to offer a number of courses of study but the majority are very small and cater for a narrow range of subjects. The average vocational centre enrolment is only about 80 and there are some centres that are open one year and closed the next. The size of a lot of the centres is going to make the reform proposal of converting vocational centres into vocational secondary schools very difficult.

Apart from the CODE courses, vocational education has had no linkages with any other part of the education system. It is this lack of articulation with any other part of the system that has led at least partially to the low regard in which vocational centres are held.

It is expected that the profile of vocational centre students will change as the reform proposals are put into place. Grade 8 will be the major leaving point for students under the reform proposals and it is envisaged that students will proceed directly from grade 8 to the vocational secondary schools. The Certificate of Basic Education Examination will be used for selection purposes.

Retention

Retention between years at Vocational Centres is not particularly meaningful in that different provinces have different policies regarding the length of course and entry requirements. There is, however, anecdotal evidence that there is large drop out rates.

Staffing

Many of the male staff do not have teaching qualifications. It is not envisaged under the reform proposals that there will be any great increase in the overall number of trade instructors. The increases in staffing that will occur within the vocational sector will be general subject teachers.

Significant external assistance was provided by a New Zealand Government grant of K500,000 which commenced in 1983. Management was a problem because of the absence of a political framework governing vocational centre training and a lack of any clear administrative authority over the development of its centres. Vocational training was subsumed under non-formal education and it may be possible that much of the funding was swamped by non-formal education when it was transferred to the Ministry of Home Affairs and Youth. A more recent intervention has been made by GTZ, a German aid organisation. GTZ has established five model centres around the country.

Technical Education

Technical education is designed for skills training of vocational personnel in technical areas at post secondary and the provision of further opportunities for those already in the work force. Four levels of courses will be offered:

The Pre-Employment Technical Training (PETT) program will be changed to a 2 year Technical Training Certificate (TTC) program. These will be offered in the various trade areas and provide the basic skills necessary for students to gain formal employment in industry and commerce.

Apprenticeship Extension courses. These courses will provide advanced skills training required by industry to obtain trade certification issued by the Department of Labour and Employment.

Diploma courses conducted in blocks of twenty weeks, over a four year period, and a certificate issued on completion.

A number of strategies have been designed to reform technical education. They are:

- increase the number and skills of technical and vocational personnel in technological areas, by teaching adaptable, broad-based, analytical and creative skills;
- rationalise the provision of technical education services through the relocation of courses on the basis of related skills areas;
- increase female participation in the improvement of the education system;
- increase the quality and standards of education;
- incorporate industry in program planning and teaching;
- modernise and improve teaching and training facilities; and
- develop programs to cater for a variety of needs, including the combining of entrepreneurial training with skills training. Such training skills will include managerial technology and developing and handling new materials and inorganic compounds.

Enrolments in technical courses in 1995 were 1669 students and enrolments are projected to increase to 4196 students by 2004.

1.3 The Changing Nature of Education

Access Rates

Overall gross and secondary enrolment rates have not shown a great change over the years. Female participation has improved markedly particularly at the secondary level. There are severe problems with enrolment rates, however, in Papua New Guinea. This is because of the lack of any age data. There is no doubt though that more children are starting school at more like the 'correct' age in 1996 than there were in 1976 and more children are progressing to higher levels of education than in the past.

Table 18: Enrolment rates 1976 and 1996

	1976			1996		
	Male	Female	Total	Male	Female	Total
GER	66.6%	47.1%	57.7%	77.5	75.2	76.5
SER	18.7%	9.6%	14.5%	24.5	20.1	22.5

Provincial Variations

There are gender differences as illustrated above but of greater concern are provincial variations.

Table 19: Gross enrolment rates by sex and province 1995

	Male	Female	Total
Western	80.8	81.6	81.2
Gulf	92.9	85.0	89.3
Central	82.4	81.8	82.1
Milne Bay	74.0	77.3	75.6
Oro	71.2	71.2	71.2
Southern Highlands	68.1	66.8	67.5
Eastern Highlands	76.2	76.5	76.3
Simbu	92.1	81.9	87.5
Western Highlands	60.1	64.1	61.8
Sandaun	74.6	70.5	72.8
East Sepik	74.0	71.4	72.8
Madang	73.8	73.6	73.7
Morobe	87.4	86.0	87.7
West New Britain	87.1	85.4	86.3
East New Britain	79.6	79.6	79.6
New Ireland	83.8	83.3	83.6
Manus	89.4	86.0	87.7
North Solomons	64.6	64.2	64.4
NCD	84.9	86.8	85.8
Enga	64.1	56.2	60.5
KLMD	95.0	89.7	92.5
Papua New Guinea	75.9	74.1	75.1

Enrolments

There has been a marked increase in enrolment numbers at all sectors of education during the past twenty years.

Table 20: Total enrolments for 1976 and 1996 by sector.

	1976	1996	% increase
Elementary		7119	
Grades 1-6	250791	515555	106
Grades 7-10	29465	85959	192
Grades 11-12	985	4496	356
Vocational centres	5788	9869	71

Note: The 1976 figure for Vocational Centres includes Skulankas

Retention Rates

The most serious problem in primary education is that of retention. This figure would appear to have been getting worse over the years. The relatively high 1971-1976 figures are thought to be somewhat inflated by the fact that most schools at the time were located in urban and semi-urban areas and children had relatively short distances to travel to school and were more likely to attend school as a result. The latter figures contain many rural schools which required children to travel quite long distances, which is directly related to withdrawals from school. It is also thought that a large number of expatriate children were enrolled in school at that time, whose parents invested at a higher rate in education than the parents of indigenous children. There are far fewer expatriate children in Papua New Guinea schools in the 1991-1996 cohort.

Table 21: Retention rates by sex and cohort

	Male	Female	Total
1971-1976 cohort	80.2	69.5	76.2
1991-1996 cohort	61.2	57.7	59.6

Teacher/pupil Ratios

The Education Sector Resources Study (1995) has argued against the generous teacher/pupil ratios which have characterised the education system over the past twenty years. Primary ratios in the low 30s and secondary figures in the mid 20s are considered inefficient and respective targets of 1:40 for the primary sector, 1:40 for lower secondary and 1:30 for upper secondary have become national targets.

Table 22: Teacher /pupil ratios by sector, 1976 and 1996

	1976	1996
Primary	31.9	32.7
Secondary	26.6	25.6

Gender Issues

While there are no institutional barriers to female participation in the formal education system, there remain considerable discrepancies between male and female enrolment rates, especially at the secondary and tertiary levels. Cultural attitudes regarding gender status and roles continue to create barriers for female students, and have a considerable effect on the level of parental support and encouragement for girls' participation in education. Structural constraints must also be addressed with a view to meeting the specific needs and problems of female students with the education system.

There have been improvements in female participation and it is anticipated that the education reform proposals will see more progress made.

Table 23: Female enrolments by grades 1976 and 1996

	1976	1996
Grades 1-6	37.4%	44.8%
Grades 7-10	30.7%	40.4%
Grades 11-12	22.3%	32.3%

The Teaching Service in Papua New Guinea continues to be dominated by males although gains have been made through programs to attract women to teaching over the past twenty years.

Table 24: Number of female teachers by sector

	1976	1996
Primary	21.3%	35.3%
Secondary	27.2%	33.5%

1.4 Curriculum Development

The proposed curriculum redirection, the continued production of textbook and supplementary material, and the provision of National Department of Education professional resources to support provincial curriculum development and pilot projects, will require high quality staff. A problem that exists at the national level is the ability to attract and keep qualified education staff who are sympathetic to the needs and aspirations of Papua New Guinea. There is a need for a broader base of upper middle management personnel as contract officers currently occupy many of these positions. There will, in the foreseeable future, be a continued need for overseas technical assistance. Some provinces have appointed specific professional officers to coordinate, at the provincial level, activities such as curriculum development, testing and inservice, and should be encouraged to utilise national grants for such purposes.

A new cadre of Elementary teacher trainers will be responsible for the development of vernacular curriculum and the production of classroom materials at the district level. They will need the strong support and assistance from Department of Education staff. In addition, a new bridging curriculum that provides for the transfer of literacy skills acquired in the vernacular to English is being developed and will gradually be introduced to all schools.

Materials Production

Development and production of syllabi, curriculum statements, teacher's guides and other support materials in all subject areas and at all levels, needs to be continued. Initial material production has begun in the 'new core' areas of Social and Spiritual Development and Vocational Education.

Until recently, virtually all materials were produced in English. The adoption, by government, of the new elementary school system has resulted in the need for vernacular materials in the formal system throughout the country. There will be a strong need to monitor the quality and suitability of these materials in the classrooms at the elementary and primary levels. Strategies and implementation procedures to do this will need to be developed and monitored by the Curriculum Unit.

Teacher materials such as teacher's guides, syllabi, curriculum statements, and inservice packages have, in most cases, been totally produced by the Department of Education. The present requirement is between 10,000 to 40,000 copies of each student text, although this will change drastically as the restructure is implemented with the introduction of elementary and greater access is provided to the higher grades. Strategies will need to be developed to enhance production within the context of major government policies relating to the outsourcing of non-core services.

Materials Procurement

It is essential that student textbooks continue to be available for student use. The shift of some purchasing to the provincial and school level will continue. To fund replacements, the Department of Education will need large amounts of money each year. Alternatively, parents, schools or provinces will become responsible for replacement costs. As recommended by a World Bank sponsored review, original publishers of most textbooks have been given the right to reprint and supply the market. In the absence of a viable resupply system, it is essential that textbooks and teaching equipment not already covered by such agreements are made available on the open market.

Materials Distribution

The distribution of materials has been very difficult in the past, and many materials remained in storage because of the lack of funding for distribution. Most materials dispatched appear to reach most schools, but only after substantial delays and not in the planned quantities. The Department of Education faces major constraints related to storage, inventory control, forward planning and national versus provincial roles. At the provincial level, the distribution of materials to provincial high schools does not present any significant problem, because they are few in number and are situated in less remote parts of the country. However, book distribution to community schools is not operating efficiently. At present, a 'success' rate of only 60% can be claimed nationally. Strategies will be developed to enhance distribution within the context of major government policies relating to outsourcing of non-core services.

Radio Broadcasts

Most of the 1,000 radio broadcasts currently included in the primary school curriculum are out-of-date. While broadcasts are meant to support and to reinforce the syllabus, most of what goes on air does not. New programs are the first priority for the new curriculum. Then the revision of current programs, related to present-day syllabus objectives, is needed and the number of programs that need to be reviewed for possible rewriting or adaptation is enormous. The selection and training of a producer is an easier task than that of finding script writers. Essential equipment is in need of electronic repair, thus it is hard to get quality sound productions. Radio reception in some areas is very poor, and many schools have poor quality radios or none at all. An alternative to improving the quality of reception in remote areas is to duplicate radio broadcasts on to cassettes for supply to schools. This will be a mammoth task.

Educational Television

A recent Japan Cultural Grant Aid project resulted in the upgrading of the television studio at the Curriculum Development Division. However, production remains modest. A successful Science television program has been trialed which has demonstrated the potential use of educational television in schools.

The use of video gives the administrators of educational institutions an excellent tool by which they can influence the viewing habits of both staff and students. There is currently a lack of relevant quality video tapes for classroom viewing. The Television Unit is obtaining educational video tapes from overseas and is dubbing programs from satellite transmissions to make these available for distribution. There is a very high demand for this medium in high schools and colleges, although a recent survey shows that most of the video equipment in schools is in poor repair or not functioning. Preservice and inservice activities are needed to cover the use, care, and basic maintenance of audio visual equipment in schools.

Measurement Services

Measurement Services is responsible for the production and administration of national examinations at grades 6, 8, 10, and 12. One of the most commonly recurring problems for the development of examinations is the scarcity of personnel with question writing skills available in Papua New Guinea. The quality of the classroom tests produced by the classroom or subject teachers for assessment or grading purposes is generally poor in terms of reliability and validity. Diagnostic tests are rarely used.

Criterion Referenced Tests in English, maths, science and community life have been written for grades 4, 5 and 6 in community schools.

Conditions for certification are embodied in rigidly defined regulations. The regulations need to become far less rigid in order to allow progress to be made in implementing an education that leads to Integral Human Development. Any attempts to develop and implement a school experience consisting of a balance between academic and practical skills and knowledge is hampered by strict certification and examinations requirements. The negative effects of examinations need to be minimised.

A Standards Monitoring Project has been monitoring standards of English and mathematics basic skills since 1982, and should be continued. Transfer of this project to either grade 8 or grade 10 is a long-term goal.

Costs of producing, distributing, and administering examinations (K380000 for printing; K60 000 for dispatch and K100 000 for moderation and marking meetings for 1996) will also increase proportionately with the increase in student numbers, the expansion of the examination system to grade 8, and a greater need for specialist, secure printing. This will be compensated for, to some extent, when the grade 6 examination is no longer required for selection purposes, although it may well be desirable to maintain some form of national monitoring at grades 5 or 6 to ensure that standards are maintained.

Alternative Curricula

The increase in the number of students at grades 7 and 8 in primary schools and grades 11 and 12 at secondary schools does not automatically mean that all of those students will be able to cope with an academic based curriculum aimed in the long term at tertiary entrance.

Alternative curricula will need to be designed and developed for those students who will have difficulty with an academic curriculum and require a more appropriate curricula suitable to their talents and their long term needs.

The issue of vocational education is becoming increasingly important and is an issue which must be resolved in the near future in order that long term planning and action can take place.

Apart from the major programs and projects, rationalising technical education courses to strengthen delivery and reduce costs will strengthen technical and vocational training. The GTZ pilot training project will continue with trials at five vocational centres throughout the country, with additional support forthcoming from AusAID. The number of vocational centres employing this approach will increase by nine centres in 1998. This program is undergoing a long term evaluation from 1997 to 1998.

Greater commitment needs to be given to expanding vocational training and non-formal learning opportunities to meet the needs of the majority of young people who are not benefiting from the formal education system. Community based non-formal education activities provide an important vehicle for social development, and should be reinforced with relevant extension services, particularly in health, agriculture, and small scale business. Opportunities to build and reinforce parenting skills through adult education programs should be encouraged within the existing network of church organisations and women's groups.

1.5 Gender

In the 1980s, Madang Province had an innovative scheme to monitor female participation in community schools as a means to improve enrolment and retention and to affect positive changes in cultural attitudes. Called the Community Liaison Helper Scheme, it hired influential community members to promote female enrolment and monitor absenteeism. The long term effect of the scheme may have results in improved retention rates in Madang province; however, it was eventually abandoned because the program was felt to rely too heavily on an intervention approach; and the fee arrangement for monitors caused disputes within communities (Bray 1984:25).

Yeoman's report identified the following five important target areas for action to improve female enrolment, retention, and performance:

- attitudinal changes;
- improvements in the quality of the teaching and learning environment, and the appropriateness of the curriculum;
- reduction of sexual harassment by teachers, and unacceptable sexual liaison between teachers and students, and students with each other;
- lowering rates of absenteeism which contributes to the drop-out rate; and
- improvements in data gathering and management planning (Yeoman 1987:109).

The feasibility and design study for a major AusAID project, Female Participation in Education, Training, and Employment, highlights additional factors that contribute to the low level of female participation, and identifies strategic areas for corrective action. These include:

- the need for information, role models, and/or opportunities to raise expectations regarding girls' contribution to society, family, and community;
- the need for parent education to improve skills, and to encourage sharing work responsibilities in family life so as to support girls' study;
- the need for sufficient understanding by trainers, planners, administrators, teachers, and non-formal education facilitators of gender issues in curriculum and instruction (AusAID 1995:18).

Successful female role models, particularly for Highlands students, are considered extremely important in order to assist in raising the status of women in those parts of the country where social and cultural attitudes continue to effectively discriminate against females taking leadership roles within schools as students and later on in education in general.

In addition, successful participation often depends on the individual girl's own motivation and incentive to stay in school, despite all odds. Overall, the attitudinal problems that affect differential support and encouragement for boys and girls at the primary level impinge on all factors related to female participation in education.

1.6 Literacy and Awareness

Literacy and awareness programs will continue to require support in terms of vernacular programs for preschool children, out-of-school youth, and adults in an ongoing attempt to raise the nation's literacy rate. It has been noted that Papua New Guinea has one of the worst literacy rates in the South Pacific and ranks behind many smaller states which have considerably less financial and human resources to put into education.

The country cannot wait until future generations have had the benefit of the anticipated outcomes of the present reform initiatives and the resulting improvement in overall literacy rates. Some 50% of the population are without functional literacy and sustained, direct action is required by government and non-government organisations to redress this problem.

1.7 Financing Education

Sources of Funding for Education

An analysis of previous educational funding reveals a marked increase in the role played by the government. A legislative change was made in 1977 to transfer the planning, development and expenditure of primary, vocational and lower secondary (grades 7-10) education to provincial authorities. This initiative was at first successful, with the provinces having adequate funds to meet their needs.

However, many provincial governments quickly found that they were unable to accommodate this increase in their expenditure. Their budget deficits increased and, in certain cases, there were fewer resources available to develop new projects. To alleviate this situation, by the beginning of 1980, the government introduced subsidies (though still insufficient) in order to meet the cost of recurrent expenditures. These subsidies were designed to cushion the difficulties facing the provinces, and to underwrite the new development priorities given to secondary education. The government decided to fund capital costs in a number of disadvantaged provinces. As a consequence, funding for secondary education by the National Ministry of Education, for instance, has increased from K4 million in 1981 to K35 million in 1996.

Government revenue has steadily increased as the result of improvement in the collection of taxes, increases in taxation rates and the introduction of a number of new mining activities. Personal income tax receipts in Papua New Guinea are quite small with just 4% of the population paying income tax. A value added tax is to be introduced in Papua New Guinea in the foreseeable future. Loans and aid assistance are important sources of revenue for the government.

The government has consistently increased its funding for education from general revenue although the appropriations have leveled off in real terms since 1991, and it appears to be difficult to increase funding much further given the demands for government expenditure in other sectors of the economy such as health and community development.

Other sources of funding for education come from some Members of Parliament who use their discretionary funds to assist education projects in their electorates. A recent example is the financial assistance given by local members of parliament to support a Japan aid project which is successfully installing 320 solar lighting kits for community schools in rural areas.

School fees and school project fees support education at the local level and some schools, particularly elementary and primary schools in urban areas have been very successful in raising funds for new school buildings. Rural schools have been less successful in this because of the lower cash base in rural areas. Some of these schools, however, through their Parents and Citizens and Boards of Management organisations have successfully approached overseas donor agencies, such as the European Union, AusAID and JICA, for assistance with infrastructure development at their schools. The community has a strong role to play here and many rural schools continue to rely on payments in kind and the use of bush materials to build classrooms and housing for teachers.

Church organisations expend large amount of money on infrastructure and maintenance programs in those schools and the training of teachers for which they are responsible.

Present Position

Annual PNG educational expenditure in community and secondary schools, vocational centres, community teachers colleges and technical colleges currently exceeds K200 million a year of which an estimated 80% can be attributed to teacher salaries. In a labour-intensive industry such as Education, this emphasis on teacher salaries should not be a cause of undue concern. The precise balance between teacher salaries, non-teaching salaries and other recurrent expenditure has been difficult to establish, largely as a result of over-lapping national/provincial responsibilities and transfer payments between the PNG Government and the provinces, between provinces and the educational agencies which deliver the educational services and direct payment by the Department of Education for some services.

There are provincial inequities when it comes to funding education. There is a considerable disparity in teacher/pupil ratios. For example, Manus province has a ratio of 1:20 whereas the National Capital District has a ratio of 1:40. In addition, provincial allocations vary enormously. There is an attempt to gain parity when it comes to the education subsidy which is set at a common figure for the country. In reality, shortcomings at the provincial level do not always result in all schools receiving the full subsidy that is expected.

The system relies on, as yet, unquantified contributions by parents, local communities, church and other non-government agencies that support schools. The recent initiative by the National Education Boards to collect data on the nature and level of this support is particularly welcome. These data should provide the basis for evaluating the impact of the school subsidy program. For schools that have been able to maintain the pre-subsidy level of community support, there has been a net increase in resources. The subsidy has been neutral for schools where it has replaced provincial subsidies and community support, and has created problems for other schools where the loss of community support has exceeded the government subsidy. Greater consistency in financial planning and reporting at school, provincial and national levels remains essential for both policy development and educational planning.

Reported public expenditure on general education (including vocational centres, technical and community teachers colleges) represents approximately 13% of total expenditure by the PNG Government (excluding public debt servicing). Inclusion of tertiary education expenditure increases the share of total Government expenditure to around 20%.

A number of international agencies have expressed concern at the high proportion of funds spent on teacher salaries. It must be noted that there is no incentive for provinces to rationalise the deployment of teachers. Any savings made on teacher salaries cannot be transferred to other areas of expenditure such as the purchase of textbooks. To some extent a high salary share is unavoidable because the population is widely dispersed in small and isolated villages in rough terrain that limit the capacity to achieve higher student teacher ratios. Direct payments by agencies operating schools and community contributions (whether in Kina or in kind) are normally in addition to total educational spending 'reported' by provincial and national departments. The actual level of education expenditure is greater than that recorded in the budget and, therefore, budget statements, tend to overstate the real proportion of expenditure used for teacher salaries.

The recurrent versus capital nature of spending has major implications for educational resource planning. An important issue for PNG is that capital expenditures generate additional recurrent demands for staffing and for maintenance. Construction of every new classroom creates an immediate requirement for an additional teacher, and perhaps a house for the teacher as well to be provided by the community, and additional materials for the new class as well as contributing to a longer term maintenance requirement.

Increased foreign aid, especially the increased AusAID contribution as project grants (as Australia moves from direct budget support to project funding) is problematic where capital spending creates an increased recurrent spending requirement.

Equity in Resource Allocation

The implementation of the Provincial and Local level Government reforms means that provinces will be taking over important responsibilities that were previously performed by the National Department of Education. These include financing the school fee subsidy, previously financed by the national government, and costs will have to be borne by the provinces either through their grants or from internally generated revenue.

Grants to the provinces are made on a per capita basis in order to establish some kind of parity of funding throughout the country but there are concerns that the funds once received in provinces are distributed on the basis of local criteria which may not reflect equity.

Many provincial budgets are poorly developed and often represent a wish list of expenditure and projects that provincial politicians would like to carry out and bear little resemblance to reality and what is available in terms of funds. The transfer of responsibilities for donor funded projects to provinces has resulted in a serious lag in drawdowns of funds because of a lack of knowledge and accounting and management skills and inefficiencies within local public services to cope with complex loan and grant agreements.

The nineteen provinces and the National Capital District have the authority to administer secondary education from grades 7 to 10. The national government, however, provides a large proportion of the funding for secondary education. Teachers' salaries, alone, account for a large part of expenditure. Provinces are expected to assume a leading role but, primarily because of financial constraints, many have been unable to make much progress toward the expansion of schools and maintenance. The various church agencies have the responsibility for the maintenance of their own schools.

2. Long and Mid-term Development Strategies in the Education Sector

2.1 Education Performance Indicators in Papua New Guinea

A great deal of activity has taken place in the recent past in the development of appropriate performance indicators in education in Papua New Guinea. These tend to be quantitative indicators and relate to outputs. There is little reference to indicators which are qualitative in nature in this activity.

The National Monitoring Authority (1997), for instance, has established four areas to monitor education performance:

1. access
2. impact
3. efficiency
4. management

The Medium Term Development Strategy (1997-2002) of the national government stresses the following criteria:

- setting and implementing curricula
- raising teacher numbers and standards
- upgrading buildings and equipment
- reducing administrative costs

AusAID has been concerned to establish yearly benchmarks and the development of an information system to enable the effective collection of data on critical indicators for 1998 involving:

- enrolment rate at each level
- percentage of children in grade 1 who are seven years old
- percentage of elementary and primary aged children who live within one hour travel distance from the nearest school

There is some similarity between the lists of indicators they do vary somewhat from one organisation to another depending on its perceived needs. There tends to be an emphasis of inputs and outputs in the selection of indicators. These strategies suggest that issues of access and equity remain high in terms of attainment targets for the Department of Education, the Planning and Implementation Office and donor organisations.

The long term objectives of the education sector continue to be the provision and improvement of basic education for all children with the view to preparing them for the basic realities of life in their communities; enhancing their personal development; nurturing productive work ethics; and preparing them for future training to meet the country's employment demands. The National Education Plan 1994-2004 outlines two main strategies to achieve the objectives:

- providing quality education for all; and
- reforming the education system.

The government's highest educational priorities are to implement the education reforms with the establishment of elementary schools, and to expand primary education through to grade 8. Two main targets have been set for the year 2004; they are to achieve universal primary education to grade 8, and to increase the transition rate from primary school to secondary school to 50% (grade 8 to grade 9).

2.2 Major Targets of the Current Education Policy

The policy matrix for the education sector shows that the focus of education expenditure, over the medium term, targets primary and secondary education, with high priority being given to increasing

access to education for those in remote areas and for female students. The primary objective, in the medium term, is significant movement to achieving universal primary education. The second objective, increasing the educational standards of the population, is vital for improving living standards, especially in rural area where the majority of the population lives. Better education leads to better health and builds up skills to be used for income generation. It is absolutely essential that the spread of educational services be improved to allow national objectives to be achieved.

Achieving the specific aims set out in the policy matrix will require increases in the resources devoted to the sector in the medium term. To achieve the objectives, attention is focussed on a number of crucial areas:

Access and Equity

Literacy

While the formal education system is undergoing structural changes, opportunities for implementing literacy and awareness programs must continue to be supported. Literacy rates remain seriously low in the country and it has the second lowest adult literacy rate in the South Pacific according to the UNDP (1994) report.

Table 25: Literacy rates by sex in South Pacific countries 1994

Country	Literacy rate (%)	Male literacy rate (%)	Female literacy rate (%)
Cook Islands	99	99	99
Fed States Micronesia	81	83	79
Fiji	87	90	84
Kiribati	93	94	92
Marshall Islands	91	91	90
Nauru	90	90	89
Niue	99	99	99
Palau	98	98	97
Papua New Guinea	52	65	38
Western Samoa	98	98	98
Solomon Islands	23	27	17
Tokelau	99	27	98
Tonga	99	99	99
Tuvalu	99	99	99
Vanuatu	64	68	60

The fact that just 52% of the population in Papua New Guinea are not functionally literate should be an intolerable state for educators and administrators.

In the past ten years, there have been considerable efforts put into improving literacy and awareness levels within Papua New Guinea. Tokples priskul programs have expanded rapidly, and elementary education programs are currently being introduced in an attempt to reach the entire school age population and provide early childhood education experiences.

Non-government organisations are taking the leading role in initiating adult literacy and awareness programs in rural and urban environments and government run institutions are also providing some literacy and awareness programs aimed at unemployed youth, women and disabled students. There are programs, which teach reading and writing, and others are concerned with the content of literacy programs. Some programs are motivated by political stances and others by social and economic concerns.

It is difficult to get comprehensive information on these programs for planning and funding purposes, and it is equally difficult to discern which programs are effective in terms of outcomes and resource utilisation, and what programs represent 'best practice' which may be emulated in order to maximise literacy and awareness efforts throughout the country.

The Papua New Guinea government has shifted its focus from literacy for reading and writing to a more inclusive approach involving awareness building. This focus implies a conscious understanding of the realities of one's life and combined with the notion of literacy it implies a capacity for individuals and groups of people to express and to shape the lifestyles which they prefer to follow.

Elementary Education

The recent introduction of the elementary stage of the formal education system is designed to immediately increase access for 6 year olds to education and provide initial literacy and early education in a language that the child speaks. Elementary education in the vernacular will provide the learning foundation to prepare children for English literacy at later stages in the education system. Elementary schools are separate institutions with their own Boards of Management and ideally are located in villages close to where children live and are seen as community owned and planned operations.

Tokples Skuls are community-based preschools that teach initial literacy and numeracy in the local vernacular (or 'Tokples'). They provide a concrete foundation for early child learning through the enhancement of language skills and appreciation of cultural traditions, using the entire community as a learning environment. Tokples Skuls represent a remarkable grass roots movement that has spread rapidly throughout Papua New Guinea. The concept originated in the North Solomons Province in 1979, where the first Viles Tokples Skul ('village vernacular school') was set up in response to the community's concern over the problems of access and retention in the formal education system, and the expressed desire to reinforce traditional social values and customs.

The tremendous success of Tokples Skuls is attributed to community involvement in starting and sustaining local programs. As community initiatives, Tokples Skuls have developed outside of the formal education sector with minimal financial support from the government. However, they have proved to be a dynamic and essential part of PNG's education system. Their importance is underscored by the move for educational reforms and the introduction of elementary schools which will teach in the vernacular. Concern has been expressed, however, over the future of Tokples Skuls under the new reform structure, in which elementary vernacular schools will be established as part of the formal education system. There exists the danger that elementary school will change the community perception regarding its participatory role in early child education.

The renaming of primary schools in Papua New Guinea to 'community schools' in the late 1970s reflected the intention to be more oriented toward the family and community, and less oriented toward the individual in the strict sense of training students for progress through successive levels of schooling. Whether community schools are fulfilling this objective, and thus, maintaining intended standards of quality, is best evaluated by the extent to which communities provide support for their schools.

Recent research on community school relations warns that 'parental support for schooling at the primary level has declined to such a point that the functioning of community schools in many parts of the country is seriously affected' (Gibson and Iamo 1992:1). Parents are expressing negative attitudes toward the institution of formal education, and in some cases, particularly in rural areas, they are destroying school property and facilities in a public display of dissatisfaction and frustration.

The study found that negative parental attitudes stem from the perception that the primary level of education is no longer a sound investment, due to limited opportunities for students to gain access to secondary education and the eventual reward of wage employment. Parents judge the school's value and the teachers' performance according to the numbers of students who pass the grade 6 examination and secure a place at the secondary school level.

There is a need for parents and students, alike, to acquire a realistic view of the value and benefit of primary education. Parents must be more directly involved in school activities, as community resource people to impart and reinforce cultural knowledge and practical skills, and as parallel learners in an effort to reinforce new skills and knowledge in the context of family life. Likewise, there needs to be greater willingness on the part of teachers to extend their services to the larger community by initiating activities that involve parents and grandparents and by serving as positive role models. Teachers have a major role to play as 'cultural brokers', helping students and parents to deal with conflicting traditional and contemporary values (Gibson and Iamo 1992:2,4). Teachers serve as agents of change, and consequently, they must take 'a more active role in educating for change' (Neuendorf 1991:252).

Virtually all of the vernacular curriculum development in Elementary and Lower Primary will be done at the local level in schools clustered by language groups. The Curriculum Development Division will play a different role in that it will provide guidelines for this development and act as technical advisers to the process.

A flexible approach to the production of classroom materials will be needed due to the limited number of copies required. This will include such low technology processes such as silk screens, the support and maintenance of local Literacy and Awareness Materials Production (LAMP) centres, the use of provincial government owned printing facilities, non-government organisation resources, and the increasing use of local private sector printing companies.

The participation of women in elementary teaching is very encouraging although it will be a number of years before assumptions made regarding class size and teacher/pupil ratios can be validated or not. It is also too early to make any meaningful comments regarding retention rates in the elementary schools, which are expected to improve over those rates existing in the early grades of community schools.

The successful implementation of the elementary level of education is vital to the success of the reform. Virtually the entire expansion of the system is concentrated at the elementary sector of the system. This is the sector with the lowest unit costs. Teachers will work shorter hours and their salaries will be commensurate with the hours that they work and the training that they have received.

Table 26: Elementary school projected enrolment and teacher numbers, 1994-2004

Year	Prep	E1	E2	Total	No of teachers
1994	390	270	-	660	22
1995	2800	700	262	3762	115
1996	7000	2800	679	10479	339
1997	11900	7000	2716	21616	723
1998	17017	11900	6790	35707	1197
1999	24334	17017	11543	52894	1775
2000	34798	24334	16506	75638	2538
2001	49761	34798	23604	108163	3630
2002	71159	49761	33754	154674	5191
2003	101757	71159	28268	221184	7423
2004	141948	101757	69024	312729	10496

Source: Siegel 1996:41 (Based on information from Curriculum Reform Office, DOE)

The National Education Plan envisages that the educational reform will be phased in over a period of ten years. The specific targets relating to the elementary level is the establishment of elementary schools as feeder schools to all primary schools in all provinces by the year 2004. Enrolment in elementary schools is on the basis of equal access opportunities for males and females.

Primary Education

Universal primary education has been a policy goal of all governments since Independence in 1975, but target dates keep being revised because of constraints faced in attaining the goal. With the reforms in

place, community schools, now known as primary schools, will provide lower and upper primary schooling through to grade 8. The new Education for All goal is to provide universal primary education through to grade 8 by the year 2004.

Developments at the primary level will focus on the removal of grades 1 and 2, the establishment of grades 7 and 8, retention and the rehabilitation of primary school infrastructure. All children will complete nine years of basic education. As this will be the only formal education for the majority of students this education must provide them with the education to be productive members of their community. The program will improve access, retention, female participation rates and academic achievements, thus improving the chances of achieving quality universal primary education.

Programs to address the problems relating to access, retention and quality will include:

- adjusting student/teacher ratios to improve cost effectiveness;
- multigrade teaching to allow for annual intakes;
- upgrading teacher qualifications;
- modifying preservice training, and improving inservice training of teachers to suit the new demands of primary school teaching;
- improving management and delivery capabilities; and
- improving coordination and support services, and monitoring the implementation of the programs.

The government's stated policy objectives relating to this level of education include:

- Universal Primary Education (UPE),
- the establishment of grades 7 and 8 in primary schools; and
- the strengthening of standards and the child's social, cultural, spiritual, ethical, moral and vocational education.

Table 27: Primary school enrolments and projected targets for 1995, 2000, and 2004

	Gd 1	Gd 2	Gd 3	Gd 4	Gd 5	Gd 6	Gd 7	Gd 8	Total
1995	116457	98341	90205	76127	69319	59290	6995	4324	521018
2000	67547	72274	105083	90944	70935	70646	46905	35802	569136
2004	10614	21674	127500	113566	100527	86098	76863	65205	602048

The total enrolment in primary schools does not rise dramatically. This is because the new grade 7 and 8 classes replace the grades 1 and 2 classes that have been relocated in the elementary schools. *Secondary Education* The restructuring involves relocating grades 7 and 8 to the primary schools and utilising the facilities thus freed up with extra grade 9 and 10 classes and, in certain selected schools, grade 11 and 12 classes. The plan will also involve the development of the vocational school system within the lower secondary level. These changes will allow the progressive increase in access of grade 8 leavers to secondary education.

The overall objective is to upgrade the general education level of the population through greatly increased access to secondary education. Specific objectives at this level of education are to:

- double access to grades 9 and 10;
- increase access to grades 11 and 12 to 5000 per annum;
- increase female participation in secondary education to 50%; and
- provide a broader curriculum in secondary education.

The government's stated policies relating to this level of education are to:

- achieve a 50% transition rate between primary and secondary education
- achieve a 25% transition rate between grades 10 and 11, and

- establish one secondary school in each province to offer grades 11 and 12.

Table 28: Secondary school enrolments and projected targets for 1995, 2000, and 2004

	Gd 7	Gd 8	Gd 9	Gd 10	Gd 11	Gd 12	Total
1995	20225	17704	16452	14205	2040	1632	72258
2000	7063	9697	26644	22268	3820	3114	72605
2004	-	-	31941	29385	5144	4990	71461

Constraints Affecting Access and Equity

There are continuing constraints on achieving access such as:

- the cost of basic education, especially in rural areas, where opportunities for income generating activities and wages employment are limited;
- not all children in large families have equal opportunities to attend school because of financial constraints;
- there are constraints in terms of physical access to schools in isolated parts of the country; and
- the availability of teachers for isolated school placement, parental commitment to education and the availability of schools.

Setting and Implementing Appropriate Curricula

The focus of attention, at the national level, is on setting and implementing appropriate curricula and ensuring adequate provision of materials is made for the large increases in teachers and students that achieving development objectives requires.

The development of textbooks for primary and secondary schools was a major focus in the 1980s.

In 1997, a total of K22.9 million is allocated to maintain the quality and scope of education through the setting of curricula, the production of materials to implement the curricula and the monitoring of implementation. These services are vital to ensure the education that the population has access to is both appropriate and of a high standard. Accordingly, it is envisaged that the expansion of access to education foreseen under the Education Plan will require significant increases in the funds devoted to this area in the medium term. In 1997, the World Bank financed Education Development Project includes large provisions for development and procurement of materials program funds similar initiatives.

Raising Teacher Numbers and Standards

Teacher education is an essential prerequisite for achieving the Government's education objectives. Increased access to education, of an acceptable standard, is only possible with a consistent increase in the availability of teaching staff. The Education Sector Resources Study (1995) calculated that some 14,000 elementary teachers would need to be recruited to service the reform as well as some 10,000 primary school teachers would require upgrading in order to cope with the demands of grade 7 and 8 curricula and school organisation. To ensure that this growth and balance is maintained, increases in funding through both the recurrent and development Budgets is required. This is estimated at K7.3 million in 1997 and provision is made for this through a real increase in the recurrent budget and increases in the funding made available for teacher education through development expenditure, largely via AusAID project support.

In a similar way, lecturing staff at community teachers' colleges in Papua New Guinea have been upgraded in the late 1980s to degree status through a successful partnership between the Department of Education, the University of Papua New Guinea and the Queensland University of Technology.

Resource Allocation

The national government provides a large proportion of the funding for primary education. Teachers' salaries alone account for more than 90% of expenditure. Provinces are expected to assume a leading role but, primarily because of financial constraints, many have been unable to make much progress toward the ultimate aim of universal primary education. The national government has provided subsidies to provinces on the basis of need through the Community Education Project, although this has not been particularly successful in relieving imbalances over recent years. Furthermore, within provinces there is often a lack of equity in the allocation of funding between rural and urban areas in favour of the latter.

The bulk of operational expenses for primary and secondary education are borne by Provincial and Local Level Governments. The largest component of these costs is the salaries and allowances of teachers that form part of the overall transfers to Provinces from the National Government. Education subsidies, some K37 million in 1997, which Provincial Governments are expected to fund, are a central component of the Government's education strategy.

Community school children have always been charged a fee to attend school in Papua New Guinea. In 1993, a 'free education' policy was introduced which provided a large boost in available funding for community schools. In reality, it was a direct subsidy to schools because parents were still asked to pay some of the costs of basic education. It was originally administered at the national level but has now reverted to provincial control. The policy itself has been much maligned for a variety of reasons and has resulted in a lessening of community involvement in the schools. One advantage, however, was that, for the first time, some of the most remote schools in the country had access to money.

A 'user pay' policy was re-introduced in 1995 in that government provided a reduced subsidy for primary and secondary school students. Some school boards of management, in addition to the school fee that was set by the province, introduced 'project fees' to make up for shortfalls and to fund infrastructure development at the school level. School Boards are able to set this fee, independently, and the project fee can varied a great deal from one school to another. This was as much as K50 in one school to as much as K500 in another school (Guy *et al.* 1996) which increased unequally the burden on parents around the country for the provision of basic education services.

In contrast, the majority of tertiary students in Papua New Guinea had their tuition and boarding fees fully subsidised by government. The introduction of a user pay policy required them to begin to contribute to the costs of their higher education and they were asked to contribute 10% of their fees in 1996. This amount was to rise by 10% in each succeeding year until tertiary students met the full costs of their education. The 1997 increase was deferred in the lead up to the 1997 election.

In December 1997, the National Government, with the strong support of the Prime Minister, increased the subsidy for school fees. It was announced that 'government will spend K76 million to subsidise school fees next year. This is double the amount the previous government appropriated in the 1997 budget' (Post Courier 8/12/97, p.3).

The subsidy was to be funded on a kina-for-kina basis and the national Government would pay the first term installment of K19 million before the commencement of the school year. As a result, schools would not have to ask parents for payment 'up front' only to be reimbursed when the subsidy was received at a later time. The second installment of K19 million would come from Provincial Government funds, the third quarter payment from the National Government and the final payment from the Provincial Government.

The Prime Minister instructed schools and provinces that they were not to charge any kind of project fee without provincial approval. The government announced that the subsidy would be sufficient to support schools and infrastructure developments required by the reform initiatives such as new classroom blocks for grades 7 and 8 and teacher housing.

Table 29: Approved Government Subsidies for Schools

	Elementary	Primary			Vocational Centres/High Schools			CODE
		Grades 1-6	Grades 7-8	Permitted schools	Boarding	Day	Permitted schools	
Subsidy per student	K20.00	K35.00	K350.00	K25.00	K500.00	K350.00	K25.00	K40.00

The Minister softened the government's position when he announced that 'the government initiative is not a free education handout. Parents should also accept some responsibility, especially where some schools may want to charge additional fees for shortfalls not covered by the government subsidies' (Post Courier 9-11/1/98, p. 1).

There is no uniform policy regarding the payment of project fees. The following Table indicates that some provinces have approved 'across the board fees' to be charged by schools, whereas other provinces have declined to support the introduction of project fees.

Table 30: Selected Provinces and the the application of project fees

Province	Elementary	Primary			Vocational Centres/High Schools			CODE
		Grades 1-6	Grades 7-8	Permitted schools	Boarding	Day	Permitted schools	
Central	K5-10.00	K30.00	K20.00	K100.00	K200.00	K100.00	K100.00	Nil
Gulf	K20.00	K5-30.00	K50.00	Nil	K150.00	K105.00	Nil	Nil
Milne Bay	K50.00	K50.00	K50.00	Nil	K220.00	K90.00	Nil	K20.00
S. H'Lands	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
W. H'lands	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

The Opposition parties attacked the government for what it incorrectly called 'the government's free education' and the announcement by the government that the increased subsidy would only be in force for 1998. There was also concern expressed about the ability of provincial authorities to meet the costs of the second and fourth quarter payments to schools. In reality, the first quarter payments were made promptly by the national government and the second quarter payments were successfully made by provinces.

A tax credit scheme has been introduced by the government which enables resource developers to assist with local infrastructure development. Local schools have benefited from this scheme but it has contributed to provincial disparities in development as a result in that not all provinces have large-scale resource developments. The major resource developers are able to spend 2% of gross taxable income in the immediate project area on prescribed infrastructure development and the capital component of social projects. Also there are agreements between provinces, the national government and traditional landowners to build infrastructure, including secondary schools and other education facilities, from royalty payments derived from resource development.

Cost Reduction

The success of the present education policy depends on a number of cost saving and cost recovery measures identified in the Education Sector Resources Study (1995) to overcome the resource gap identified by that study.

Cost saving measures:

- Minimum average class sizes should be: Elementary 30, Primary 40, Junior Secondary 35 and upper Secondary 30.
- Classes should be regrouped at grades 3, 6, 9, and 11.
- Multigrade classes should be an integral part of school planning and teacher allocation.
- Staff should be allocated to schools on the basis of the number of students rather than the number of classes.

- Teachers should be deployed on the basis of agreed national criteria, with the number of teachers being determined annually in advance, and with any additional appointments to a province within a given year being subject to central approval.
- Distance education should be the principal mode for teacher upgrading.
- Communities should be encouraged to contribute to the development of infrastructure for schools, particularly at the elementary and primary levels, through the provision of local materials and labour.
- Consideration should be given to the privatisation of functions that are not part of the Department of Education's core business, e.g. printing and distribution of school materials.

Cost recovery measures:

- Fees for inservice courses—a precedent that has already been established, at a level that will make them largely self-financing.
- Fees for examinations conducted at the end of grades 6, 8, 10, and 12, set at a level that will make them largely self-financing.
- The Department of Education has proposed under the new Organic Law on Provincial and Local Level Government that all education officers within the country will be part of the Department of Education. This arrangement will mean that the Senior Education Administrator in the province will answer directly to the Secretary for Education in relation to policy directions but not day-to-day administrative matters.

2.3 Ability to Pay

School fees are set at a level which do not reflect the costs of education but rather the ability of parents to pay for education. For example, in New Ireland province in 1991-92, primary school fees ranged from K50 in the provincial capital of Kavieng to 50 toea in the outer islands where, in fact, it was more expensive to provide education services. Guy and Tawaiyole (1997) report that parents in remote villages, where there is little access to cash, have significant difficulties in raising sums as low as K2 for elementary school fees and children are denied access to early education opportunities as a result.

Another question that must be asked is why secondary education is so much more expensive for parents than primary education. There needs to be a lowering of secondary school fees. The subsidies for secondary education reflect this point. For instance, the Elementary subsidy is K12 per year, the Primary subsidy is K20 per year for grades 1-6, and K200 per year for grades 7-8 and boarders in secondary grades 9-12 receive K270 per year and secondary day students receive K200 per year. This explains why urban non-boarding secondary schools are well served in terms of financial resources.

The subsidies for the five national high schools are paid by the national government while the provincial governments pay for all other subsidies. Lower Secondary education has traditionally been a provincial responsibility. There have, however, been large differences in levels of support between provinces. The extremes have been Central Province, which provides little or nothing in terms of support for students in its high schools, to New Ireland who provided grants of up to K300 per student. These differences in subsidies mean that there are also large differences in the amount of school fees charges between provinces.

Many provinces have not paid the full amount of subsidies due in many cases because the province itself has not received the subsidy from the Department of Finance. Those provinces that have paid have given priority to secondary schools rather than primary and elementary schools because most secondary schools are boarding schools and would be forced to close without adequate subsidy payments.

The national high schools, in contrast, have always been relatively well off, in comparison with the other secondary schools, with considerable grants from the National Department. These amounted to approximately K1000 per student, as well as other grants, such as maintenance and ancillary staff provided as public servants. The unit costs of the national high schools are, then, very high. These costs are made even higher when airfares for students are included.

The concept of free education has a long history in Papua New Guinea and surfaced for the first time in the lead up to the 1981 elections. Politicians spoke of free education but all the time they were describing what is really a subsidised form of education funding. Ivarature (1997) chronicles, in detail, the announcements and reversals by politicians over a free education policy for Papua New Guinea over the past twenty years. In short, a period of 'free' education from 1993 to 1994 created major problems for the national government budget. Some provinces acted in terms of government policy but others added their own touches. Some provinces received funds but nonetheless charged parents full fees and did not reimburse government funds. Madang Province declined any assistance whatsoever. Milne Bay Province insisted that it received less than its entitlement and passed the shortfall onto parents.

2.4 The Shift to Quality

Some issues of quality such as texts, curriculum and attempts to improve teacher education, although in-service opportunities for teachers have declined in the past ten years, have been addressed. In teacher education, there has been a move to produce more reflective practitioners, and more student-oriented rather than teacher dominated teaching methodologies for the classroom. In addition, initial teacher education has been increased from two to three years for primary and secondary teachers in the past ten years.

In 1995, the AusAID Teacher Education Project has considered quality. There has been more consideration of quality issues in the last twelve months within the Department of Education. To some extent, quality has been less of an issue as the reform has tackled the immediate problems of access and equity.

The reform has rightly concentrated on quantitative issue such as expanding enrolments and improving equity and retention rates within education. As quantitative performance indicators are achieved increased attention will be given to quality issues within the reform structure and the establishment of performance indicators to effectively measure matters of quality.

Qualitative Performance Indicators

The following table is a set of priority indicators which, by agreement with participants in the study, must be collected and are readily available. Several of the indicators can be collected by the simple addition of a category to an existing data collection form and available for analysis on a yearly basis at a later time.

Some 34 qualitative indicators are put forward as priority indicators to monitor the progress and impact of the reform initiatives. Eight indicators are recommended for elementary education; eleven for the primary and secondary sectors; and three management indicators are put forward. In fact, a number of these indicators are the same, such as teacher attendance, and are only distinguished from one another on the basis of the sector of education which is under consideration.

The indicators emphasise the centrality of the teacher in the quality of the teaching and learning processes in education and 17 out of the 34 indicators measure vital aspects of teacher behaviour and performance.

For instance, the monitoring of the attendance of teachers is considered a crucial indicator of quality provision in Papua New Guinea more so than absenteeism amongst students. Absence amongst students is a significant problem, and inspectors must investigate continuous absence of ten days or more. Although poor student attendance no doubt impinges on the quality of education for that particular student it is unlikely to have much bearing on the overall quality of education provided by the system. Teacher absences, on the other hand, have more immediate effects and detract from the quality of education for a much larger number of students at any one time. Although schools attempt to cover teacher absences by allocating those classes to teachers whom are present; there is always the danger that those classes receive inadequate attention during those times. It is for this reason that participants

in this study are of the view that it is more important to monitor teacher attendance than student attendance.

Table 31: Qualitative performance indicators to monitor the Education Reform

Elementary	Primary	Secondary	Management
# AusAID elementary kits in schools	# textbooks per student	# textbooks per student	provincial education plan developed
community involvement in curriculum development	# new courses developed	# new technology courses developed	local education plan developed
# of big and small books produced at school	library expenditure by school per student	library expenditure by school per student	# BOM meetings
# trainer visits	# inspection reports written	# inspection reports written	% of budget spent on quality inputs
teacher attendance	student centred teaching	% classes taught by specialist teachers	
student achievement at end of E2	teacher attendance	teacher attendance	
% teachers completing certificate courses	student achievement at end of grades 5 & 8	student achievement at end of grades 10 & 12	
% teachers participating in cluster in-service activities	# teachers with gd 12 qualifications	# schools with specialist buildings	
	# teachers with specialist gd 7 and 8 qualifications	# teachers with specialist degree qualifications	
	% teachers enrolling in DEP(I) program	% teachers enrolling in degree studies	
	% teachers participating in approved in-service activities	% teachers participating in approved in-service activities	
8	11	11	4

The assumption grounding this indicator is that teachers will be in classes more often as long as the education system is able to improve working conditions, provide adequate housing, efficiently disburse pay cheques and provide professional development opportunities for teachers. On the other hand, if teaching conditions continue to deteriorate and teachers become discouraged and perceive that they are receiving little support from the Government then it is more likely that absenteeism will increase.

The quality of teaching resources available to teachers is fundamental to the success of the reform. The provision of teaching materials available to teachers and students, such as new courses, the provision of formal classroom texts for all students and library resources, make up a further eight of the priority indicators. An additional indicator monitors the construction of specialist buildings in secondary schools to support the development and introduction of new technology courses.

Examination Performance

Grade 6 children sit each year for the Primary Education Certificate Examination (PECE). Children sit for three examinations: two Basic Skills examinations (English, which includes a Written Expression component, and Mathematics) and a Combined Subjects Examination. The two Basic Skills tests are criterion referenced with the Combined Subjects being norm referenced. Provinces use these exams for selection purposes for entry into grade 7.

The PECE has always been used by provinces to select children for grade 7 in the high schools. This role for the examination will diminish as the reform implementation gathers pace. The Department intends to develop a systematic monitoring program focussing on the grade 8 examination which will become a most important performance indicator at the primary level in a relatively short period of time.

Test scores, from the Measurement Services Unit Standards Monitoring Project, have indicated that the quality of primary education has gradually improved, although it varies greatly between provinces, and also within provinces.

The Standards Monitoring Project was initiated as part of the World Bank Education II Project in 1982. Using Item Response theory (Rasch Analysis), the Measurement Services Unit compared standards of achievement in English and Mathematics at the grade 6 level from 1982 to 1986.

In 1987, the PECE was drastically reformed to place greater emphasis on the assessment of Basic Skills and the application of these Basic Skills. The methodology of the Standards Monitoring Project was also reformed at this time and 1987 becomes the new base line for comparative analysis.'

The Monitoring Project has suggested over the years that urban schools achieve better than rural, and that larger schools do better than smaller ones. An analysis of results is carried out using a number of variables.

2.5 Future Policies

In the short term, the reform policy is to fully develop cost recovery and cost efficiency targets to ensure filling the resource gap and implementing all of the aspects of the reform.

In the longer term, over 20 years, the attainment of compulsory education to grade 8 followed by the attainment of universal grade 10 education are likely to become policy objectives as the present reforms are achieved and new objectives are established to capitalise on the achievements of the reform. It is unlikely that universal primary education can be achieved without legislation which enforces compulsory education in Papua New Guinea.

2.6 What is needed to Achieve Policies?

Educational planners and administrators are only too aware of the importance of the resource gap which has been identified between servicing the full requirements of the National Education Plan (1995-2004) and making compromises about what can and what cannot be sustained over the long term.

It is unlikely that government will increase markedly the budget of the National Department of Education or provincial education budgets in the near future. It is more likely to insist that the resource gap be filled through cost effective and cost efficiency means, or as a final solution, making decisions about which reforms are priorities and which reforms should be modified or removed from the overall program. Adult literacy and non-formal education, for instance, are important components of providing quality education for all. The National Education Plan sets the target for adult literacy at 80% by the year 2010. However, programs have suffered from budgetary cutbacks already and will require a renewed commitment in terms of resources and funding if the target is to be realised.

Facilitating and Monitoring Unit

A very important factor in the sustainability of the present reform program is the establishment by the Department of Education of a Facilitating and Monitoring Unit to take responsibility for the reforms.

The Unit has initiated and ensured the progress of the reform. There has been an improvement in communications between senior managers of education in the provinces and the Department of Education. Annual meetings with senior provincial educators and their national counterparts are now

co-operative whereas in the past they have often been bitter encounters. The financial crises and the reform have, in a sense, brought educators at national and provincial levels together to take up the challenge of implementing the reforms.

Opportunities for future action by the Unit depend on a solid base of information and data for effective program planning and monitoring. The overall government planning system continues to lack a consistent and accurate database of social and economic indicators as well as an effective monitoring capacity. The provincial data base system, that was in place during the early years of PNG's statehood has collapsed, and it is now virtually impossible to assess the conditions affecting children's development at the village level. In order to improve and maintain quality standards in education, the Department of Education's monitoring and supervision system requires enhancement. In addition, there is a serious need to reintroduce local level data collection in order to measure and monitor the ongoing situation, and evaluate the effectiveness of policies and programs. There is also a need for further participatory research and appraisal of cultural knowledge and practices to provide qualitative information for planning and sustaining relevant programs.

But the reform is not only about a central agency which plans and implements reforms. It equally involves provincial and local level authorities, and ultimately people who often live in remote and undeveloped areas of Papua New Guinea.

The development of planning and management capacities at the provincial and local levels is vital to maintain the effective operations of the Facilitating and Monitoring Unit. In this regard, the provision of the Unit's planning advisers based in the four major regions of the country is in place but as yet have not been relocated to the regions to assist local level planning and administration of the reform.

Governance

While the Organic Law on Provincial and Local Level Governments clearly demarcates national responsibilities from provincial responsibilities, it is the intention of the national government that there should only be one national education policy. This policy must be stressed and implemented through the National Planning Office. Provinces will be assisted and guided in developing their provincial implementation plans, which should be consistent with the national policies and goals.

The National Planning Office co-ordinates the medium term development strategy of the government and the education reforms are taking place in a context of other national reform programs such as the structural adjustment program. There are inevitably some overlaps and clashes concerning responsibilities and tasks between the various reform programs and national, provincial and local level responsibilities. It is important to have clear guidelines as to who is responsible, for example, for funding the construction of school buildings.

Decentralisation

With the implementation of the Provincial and Local Level Government reforms, provinces will be taking over important responsibilities that were previously performed by the National Department of Education. These include financing the school fee subsidy, previously met by the national government. Additionally, some functions and projects that were previously administered and financed by the National Department of Education are now transferred to the provinces, and costs will have to be borne by the provinces either through their grants or from internally generated revenue.

The recent reforms in government structure give greater budgetary responsibility to districts within provinces. It will be essential, therefore, that local level government councils are equipped with necessary information and skills to plan for sustainable development, and to make sound decisions about resource allocation in the best interests of their communities. In reality, finances go to provincial authorities in the first place rather than direct to the district level as was supposed to happen under the new Organic Law reforms and provincial authorities are in a powerful position to make final decisions in relation to what is best for districts, or even which district will get funds and others will miss out.

The reforms clearly spell out the responsibility of local level governments for initiating and implementing programs for children and youth. The new Organic Law also grants considerable legislative powers to local level governments on a broad range of social concerns. Therefore, it will be imperative that collaborative partnerships are encouraged between local level governments and the NGOs, churches, and donor agencies that advocate the well-being of children and that social mobilisation programs are initiated and carried out at the local level.

Capacity Building

There is an urgent need for training and capacity building for provincial planners and the members of district planning committees to ensure successful planning and implementation of the education reforms. Not all provinces have completed their educational plans up to 2004 and there is little understanding of costing and implementation schedules in the action of provincial and local level planners and decision-makers.

The competencies of senior provincial managers of education and reform co-ordinators to implement the reforms are largely unknown. There is a high turnover of senior provincial managers, and for that fact, *changes in ministerial portfolios and political directions, together with political interference in the public service* which have the potential to detract from the sustainability of the reforms. Awareness work with communities, in relation to the reforms and community involvement in decision making, has received little attention so far. Indeed, there is some resistance by staff within the Department of Education and provincial educational structures about giving power to communities to decide educational matters.

In addition, the role of the District Education Administrator is unclear and the structures, or lack of them, which are in place to ensure that community voices are heard and contribute to local level planning and participation in education. Great store is placed on partnerships between education and the community within the reform especially at the basic education level. Communities are expected to contribute to curriculum development and the selection of teachers at the elementary and primary school levels and to contribute to infrastructure development for the schools. Adequate structures will need to be developed to enable participation to take place and these are problematic at this stage.

2.7 Key Strategies

Adoption of cost effective and cost efficient measures will greatly reduce the gap between the resources, which are likely to be available from government (national and provincial), and the resources required to implement the education reforms. Three strategies are fundamental to all components within the education reforms: co-ordinated planning and implementation; efficient teacher deployment; and community involvement.

Co-ordinated Planning and Implementation

The transition from the present system to the reformed system must be carefully planned and tightly coordinated. This will involve national and provincial authorities, together with non-government agencies.

For example, the expansion in a given Secondary school of grade 9 and grade 11 places (and grade 10 and grade 12 places in the following year) must follow the release of resources particularly teachers and classrooms provided by the transfer of grade 7 and 8 from the Secondary school to local Primary schools. Grades 7 and 8 facilities in the Primary schools must only be provided after the teachers and the transfer of grades 1 and 2 from the Primary school to local Elementary schools has released classrooms.

This strategy will allow expansion of Secondary grades 9-12 and the relocation of grades 7 and 8 to Primary, through the re-allocation of resources, thereby concentrating the need to provide new facilities on Elementary, where such provision can be made at a lower per unit.

Efficient Staff Deployment

Given the high proportion of the education budget allocated to teaching and non-teaching staff for salaries and on-costs, policies and practices relating to deployment are critical factors in implementing cost-effectiveness, and in reducing unit costs:

For example, the average grade 1 Primary class contains just over forty students, i.e. a student teacher ratio of 40:1. By grade 6, this ratio has dropped to a much less efficient 25:1. The separation of Elementary (Preparatory to grade 2) from Primary grades provides an opportunity to regroup classes at grades 3 and 6. Regrouping at grade 3 to re-establish a student teacher ratio of 40:1, rather than the present average of 32:1, would have saved up to 500 teaching positions in 1994 in grade 3 alone.

The implementation of efficient deployment strategies will facilitate the achievement of reform goals by minimising the provision of additional resources, other than for the Elementary sector. More efficient staff deployment practices will delay the demand for additional resources, particularly teachers and infrastructure, which natural population increases alone could be expected to bring.

Community Involvement

Community participation in education, including school communities, churches and non-government agencies, has a long and positive history in Papua New Guinea. The reform agenda provides enhanced opportunities for community involvement. Given the scale of the reforms, particularly at Elementary level, a number of the initiatives to improve access and equity will only be feasible if the community can be encouraged to contribute at the local level.

For example: the provision of infrastructure for Elementary grades will require an extensive development of facilities in local communities throughout the country. Contributions from communities in the form of labour and local materials, supported by grants from government, will enable such facilities to be put in place at minimal cost. The alternative of erecting formal permanent buildings will be beyond the Government's financial capacity; the result being that this key component of the reform would not be realised.

When combined, the three strategies outlined above will result in:

- elementary education will provide significant employment opportunities in rural areas in terms of new teaching positions;
- no significant growth in the required number of teachers for either Primary or Secondary;
- minimal requirements for additional infrastructure (buildings and related facilities) for either Primary or Secondary; and
- a marked increase in opportunities for education at all levels.

2.8 Potential Risks

There are four main areas of risk which could impact adversely on the success of the current policy.

Planning and Management of the Reforms

The reform agenda is complex and demanding and is confounded by the intention to phase in the new system and phase out the existing system concurrently over a period of ten years. A further complexity for planning and management arises from the shared responsibility for education between national and provincial authorities. There is a risk that attempts will be made to implement the reforms piecemeal, as occurred early on in the reform process but has become more controlled lately, in response to inadequate

planning and/or local pressures. Such initiatives will distort the integrity of the reforms, particularly in relation to access and equity, jeopardise quality and lead to resource inefficiencies.

Elementary Education

The planned and timely provision of low cost infrastructure is central to the success of the reform. Delays in the provision of facilities will result in corresponding delays in the implementation of reform and lead to considerable additional costs. Similarly, the salary levels of elementary teachers are the keys to a centralised recurrent budget. Any variations from the proposed salary scale (at some 50% of primary teacher salary) will have an adverse effect on the budget. For example, if primary rates were adopted the additional salary cost for the year 2004 would be in the vicinity of K52 million.

Upholding of Priorities

Agreement on, and adherence to, priorities will be essential. The risk is that priorities will be changed without clear recognition of the consequences. Such initiatives will undermine the continuity of the reforms, lead to delays in implementation and could jeopardise quality.

Resource Allocation and Sustainability

The resources required to implement all the desired components of the reform are expected to exceed the projected level of Papua New Guinea resources available for education, at least within the next five years. The agreed priorities for reform must be fashioned to fit the financial parameters that emerge and be contained within that framework. The risk is that the flow of funds will fluctuate to the extent that implementation will be neither consistent nor sustainable. Such a situation will diminish the efficiency of the implementation process, jeopardise student progression and undermine public confidence.

As a resource rich country, with tremendous potential for economic growth, PNG will not be prepared, nor have the capacity to inherit its wealth, unless it gives priority to the health and education of its people within a well-defined strategy for sustainable development.

Children represent the greatest asset and security for the future and, as such, they must be central to development planning. Investment in children's capabilities and capacities reinforces the strong links between human development and economic growth. Parents, families and communities represent the primary resources for ensuring the survival and care of the nation's children. Investment in the human relationships that support and nurture children is equally important in maintaining the important links between social and economic development.

Strengthening the capacity of the family, clan and community to participate in development as active agents and decision-makers is central to addressing the situation of children and education. Individuals and communities need to be facilitated with the skills to formulate plans according to their identified needs, and to make choices about their future. Capacity building and training at all levels and sectors continue to be areas of immediate need in fulfilling objectives to improve the well-being of children and communities as partners in development. Churches and community groups offer important organisational networks from which to promote partnerships and identify opportunities for action.

In planning and programming for the development of children and communities, it is important not to lose sight of the fact that 85% of the population continues to live in rural areas and maintain a subsistence based livelihood. Strategies for action must be sensitive to the different needs and concerns of remote village communities, and must account of structural disparities affecting less developed areas. How do children benefit from the reform? Much of the thinking about the education reform tends to focus on the system and education planners are in danger of losing sight of children and the nature and quality of their learning that takes place in schools.

Linking Education to Employment

A draft national policy for improving and co-ordinating competency-based training in Papua New Guinea has been critical of present training institutions such as technical colleges, vocational centres and private training institutions, which are fragmented and not linked with each other. In addition, the institutions tend to be more closely linked with school than with the world of work. As a result, the work force has been oversupplied in some areas, undersupplied in others and facilities have been underutilised.

There is a lack of information and planning in terms of human resource development and formal and informal employment opportunities in Papua New Guinea. The Higher Education Plan (1990) linked the needs of the professional and semi-professional employment sectors with desired outputs from higher education institutions in the country. A household labour survey is needed so that training can be geared to employment needs and studies which point to the structural changes which are likely to take place in employment and how education should respond to these changes. There is a tendency for education and training to be oriented to positions and jobs that no longer exist or have been oversupplied.

In the 1970s, large businesses had their own training centres for apprentices although this has declined since the mid 1980s. The closure of the copper mine on Bougainville in 1989 also meant the closure of the largest employer of apprentices and technician training opportunities in the country. Technical and business college training is provided in eight government colleges scattered around the country although two of them are closed at present due to an armed rebellion on Bougainville Island and volcanic destruction at Rabaul.

Many employers today do not have deep roots in the country because of the high levels of lawlessness and the ever present thought of closure. Major resource developers make relevant agreements with local landowning groups to provide formal employment training programs, such as Porgera Joint Venture and OK Tedi Mining, but there have been examples of other companies who have broken contractual agreements in terms of local development and training opportunities.

There has been a strong recognition, during the past twenty years, by educators that education must assist people for employment in the informal sector although, for the most part, education has continued to map a strongly academic program for children. Community attitudes have, in the past, strongly endorsed academic content because it is felt that such a program will result in high paying jobs. More recently, parents are more aware of the scarcity of jobs in the formal employment sector for school leavers and they are beginning to question the relevance of an overly academic curriculum.

At present, there are some 110 vocational training centres established for grade 6 and grade 8 school leavers throughout the country. These institutions are often criticised for inappropriate curricula, poorly trained staff and poor levels of infrastructure and equipment and, as a result, have a poor standing within the community. Five of these vocational centres are participating with the German Development Agency (GTZ) and trialing alternative curricula, expanded inservice opportunities for teachers and short courses to assist youth to develop appropriate skills for employment in the informal sector at present.

Partnerships

The nineteen provinces and the National Capital District have the authority to administer education. However, confusion exists over matters, such as the extent of community powers for decision making. This is because community functions have not been adequately recognised or formulated. The level of community involvement has been declining as communities, more and more, see their schools as provincial responsibilities.

Within the reform strategy, the national government recognises the important role of non-government organisations, especially churches, in the provision of education services. Government provides salaries for teachers and the education subsidy scheme in order to assist the operation of these schools.

Table 32 provides a summary for the whole of Papua New Guinea showing the percentage of schools operated by different agencies. It is noteworthy that less than half the schools at this level are operated by government.

Table 32: Number of community schools by agency, 1995

Agency	No. of schools	% of total
Government	1306	47.0
Catholic	794	28.6
United Church	184	6.6
Lutheran	207	7.4
Anglican	92	3.3
Evangelical Alliance	181	6.5
Other	17	0.6

Source: Department of Education, 1995

In addition, there are two universities and seven community teachers' colleges which are church based-institutions in Papua New Guinea.

Private business and training colleges have grown at a rapid rate in the past five years partly in response to the failings of the government technical and vocational institutions to offer appropriate and high quality courses. More recently, specialist private colleges have commenced which provide secondary education opportunities as well.

2.9 Past Major Interventions

The Education II project, funded by the World Bank, was the most significant educational development between 1980 and 1990. It addressed expansion, management and quality issues. Projects included:

- the provision of advice and training to provinces in educational planning;
- the strengthening of the Community Education Project;
- advice on education resource centres for provinces;
- upgrading examination and assessments;
- the establishment of an evaluation unit to monitor project activities; and
- teacher training.

The Community Education Project was a policy to improve equity which was aimed at helping provinces with low equity measures. For instance, additional teachers were given to those provinces with high teacher/pupil ratios. The positions were only approved if they were new positions which were allocated to remote areas in the provinces. This project was passed on to provinces as part of the transferred functions but it has ceased for all intents and purposes as a result.

The Education III (World Bank) project was the most significant development between 1984 and 1988. It has assisted with:

- the building of new schools;
- maintenance of existing school facilities;
- school-level management; and
- curriculum design.

Projects included the provision of educational planning advice and training to the provinces, the strengthening of teacher training courses at Goroka Teachers' College, institutional capacity building, upgrading of examinations and assessments, and major capital programs.

At present, the Education IV Project with the World Bank is:

- assisting with the reissue and distribution of textbooks;
- increasing the number of school inspectors;
- subsidising community school libraries;
- providing maintenance funds for schools; and
- carrying out policy studies on female education.

Outcomes of Sustainability Research

There is a considerable body of research literature which attempts to understand why educational innovations have not been sustained in Papua New Guinea.

Guthrie (1986) suggests that the response of education in Papua New Guinea has been to import the best from somewhere else. He notes that often the trial stage of an innovation suggests success but what is often overlooked in the third world is the high levels of expatriate involvement and funding which do not always follow when large scale implementation begins and innovations can turn out to be costly failures. This approach has resulted in a number of false starts: the Dienes inspired mathematics program which unsuccessfully promoted pupil centred; individual discovery methods in the 1960's (Lancy, 1983); the Taba inspired Secondary Schools Social Science syllabus which emphasised independent student learning and a facilitator role for teachers and was acclaimed as an 'international front runner' (Cleverley, 1975, p.21), but had to downplay the spiral approach and reintroduce the traditional didactic role of the teacher because neither teacher nor students could cope with the innovation (Weeks and Guthrie, 1984); the primary science program which was unsuccessful because of the conflict between traditional notions of causality and modern science (Bulmer, 1971); the move to school based curriculum development in the 1970's failed because of the lack of initial training given to teachers in curriculum development (Lornie, 1982); the Secondary Schools Community Extension Project has been downgraded to the level of a few curriculum materials because the project required a knowledge background and teaching flexibility that Papua New Guinea teachers did not possess (Crossley, 1984), and was based on an unequal distribution of the social benefits of education between relatively well off urban schools and the poorer rural schools (Guy, 1986).

Why has there been a high failure rate amongst educational innovations in Papua New Guinea? A number of writers suggest that the problem is in the importation of overseas educational practices which overlook the fundamental character of the context into which these practices are transplanted (Crooks, 1983; Flinck and Flinck, 1985). Other writers argue that Papua New Guinea's community and high school teachers and students are more comfortable working in formal, teacher led classrooms (Larking 1974, Guthrie, 1983) and that western educational innovations such as discovery learning, creative learning and independent learning approaches are inappropriate (Field, 1980; Guthrie, 1983; Lancy, 1983; Souviney, 1981; Vulliamy, 1984). Jordan (1987) in a recent evaluation of programs at Goroka Teachers' College argued '... at this stage of development, it is inappropriate to present 'western' theory and then apply it to the situation in Papua New Guinea' (p.6). Other research in this area suggests that teacher education which is congruent with traditional values may be more effective (Larking 1974; McLaughlin, 1988).

This brief review of the literature suggests that little has been achieved by innovations. There are innovations which have, of course, succeeded such as the Viles Tok Ples Skul scheme (Delpit and Kemelfield 1985); the Oro Book Flood (Khambu 1992); reconstruction of teachers (Guy 1994); a community development action framework by Ahai and Bopp (1995); indigenous curriculum development (Avei 1996); and equity achievements by female grade 12 school leavers (Tawaiyole 1997). These innovations have, in common, an understanding of Papua New Guinea contexts and have high levels of indigenous inputs in their design and implementation. There is ownership and a commitment to Papua New Guinea ways to design and deliver education services.

The planners of educational innovations in the 1990s have learnt from these experiences and there is a strong sense amongst Papua New Guinea educators that planning educational reform must recognise the

social, cultural, political and economic contexts in which education, teaching and learning are situated in Papua New Guinea.

Planning for the comprehensive reforms, which are now taking place in Papua New Guinea, has been more critical, informed and contextually based than much earlier planning. This is an indication of the relative maturing of some parts of the education system some twenty years after Independence.

2.10 Ensuring Success

The experience of the reforms to date indicates a number of important steps that need to be taken to maximise the success of policy and project implementation in Papua New Guinea. They are:

- reforms must be based on the needs as expressed by the people and success is more likely to be achieved where there is genuine community participation in the formulation and implementation of policy and projects;
- education policies must be implemented within the overall policy environment of government;
- there must be linkages between education policies and the overall vision of government;
- the use of pilot programs allows for close evaluation and refinement of innovations but often pilot programs are linked to high levels of funding, in a sense to ensure their success, but government finds it difficult to maintain such high levels of expenditure when pilot programs are to be introduced more widely and to be instituted on a national basis;
- those innovations that are supported by facilitation, information and systematic monitoring have a better chance of being implemented;
- there is a need to systematically measure achievement in terms of quantitative and qualitative performance indicators;
- recurrent budgets must recognise the costs which derive from development budget initiatives;
- the most effective deployment of education funds has been through direct payments to schools by the national government rather than the provision of funds through provincial governments, members of parliament or local level government officials; and
- the continuation of training programs for headmasters at the primary and secondary levels to ensure appropriate management of funds and proper accountability of funds.

3. Overseas Development Assistance for Education in Papua New Guinea

This section provides details on the involvement of donors in recent education projects. The involvement of each donor is described in turn, starting with the completed projects followed by current projects, and followed by project proposals for future assistance.

3.1 Japan International Cooperation Agency (JICA)/Government of Japan

Completed Projects

Port Moresby National High School

This project was completed in 1995, and the school commenced classes in 1996.

Construction work on Port Moresby National High School was done in two stages. Stage 1 started in 1994 and was concluded in March of that year. Stage 2 commenced in April 1994 and was completed in September 1995. The project was funded jointly by the Japan and the Papua New Guinea Governments.

Japan was responsible for the infrastructure development of the school and Papua New Guinea was responsible for the development of services such as water, sewerage, road and electricity.

Japan made available about K21,300,000 for the project. The Papua New Guinea government, likewise, made about K2,200,000 for the project. Funds provided by the Government of Japan were ex-budget while those provided by the Government of Papua New Guinea were in-budget.

The objective of the project is to provide opportunities for an additional 500 students to receive grade 11 and 12 education.

Current Projects

University of Technology

A Teaching and Research Facilities Rehabilitation Project has been in progress since 1997 and is due for completion in 1998. The project involves expenditure on infrastructure and facilities and includes the use of experts from Japan.

The University is seeking to have the technical assistance component of the project extended into 1998 and 1999.

Additional assistance is required and the University is to consider in the near future a further approach to JICA for assistance.

Project Proposals

National Education Media Centre

The National Planning Office has been asked by the Department to put a formal request to the Government of Japan for the funding of this project. The National Education Media Centre Project has two major components, viz. the building and equipment and the manpower and production. The objective of the project is to enhance the capacity of the department's television centre to produce appropriate educational audiovisual materials such as videos for schools. This project proposal will be the focus for further negotiations between the Department of Finance, the National Planning Office, the Department of Education and JICA.

A submission has been forwarded to the Government of Japan for some K4 million for computer, audio-visual equipment, scientific equipment and several volunteers to assist with the continuation and expansion of present programs at the University.

3.2 European Union

Completed Project

Support For Recurrent Activities

The European Union, under the Structural Adjustment Program (SAP) has been providing grants to support some of the Department of Education's recurrent activities since 1991. Activities which were supported included: Curriculum Development and Monitoring, Production and Distribution of Curriculum Materials, Community School Operations - NCD, High School Routine Maintenance and grants for equipment, National High School Maintenance, Inspection and Guidance Services, Technical College Operations, Pre-service Teacher Education, Teacher In-service Training, College of Distance Education and Vocational Centres.

Grants were used for operational expenses such as:

1. Office materials and supplies for typing ,word processing, photocopying, fax, computers, packing, calculators and libraries;
2. Other operational expenses which included activities such as Mini Ratings Conferences for school inspectors. National Ratings Conference, Annual Conferences; workshops for language and literacy to develop teaching materials for National High Schools; Maths workshops to inservice grades 1-4 teachers on the use of new textbooks; Science workshops to inservice teachers of primary schools in Madang and West New Britain provinces; Social and Spiritual Development workshops to develop student and teacher materials for community schools, high schools and national high schools; vocational education workshops to develop students and teachers resource materials for commerce, home economics and agriculture; Measurement Services Unit workshops to write examination item banks; Provincial Examination Supervisors workshop on the administration and supervision of national examinations; printing; advertisement of vacant positions and production and distribution of curriculum materials;
3. Routine maintenance of typewriters, photocopiers, vehicles, computer hardware, air conditioners, word processors, fax and duplicating machines;
4. Construction, renovation and improvement of institutional building facilities such as the extension of the mess at Madang Teachers College, high school maintenance, upper secondary school maintenance of the boys dormitories in the four national high schools and staff houses at Aiyura. Routine maintenance of community schools in the National Capital District and routine maintenance of College of Distance Education facilities and furniture replacement.

The focus for European Union support in 1998 is on curriculum development and monitoring, production and distribution of curriculum materials and high school maintenance; and

5. Capital transfer of equipment for workshops and catering to six vocational centres, viz. Badili, Kavari, Koki, Limana, Makana and Morata.

Expansion of Access to Grades 11 and 12 (Phase 1 1994)

Under this project the European Union has provided funds for the infrastructure development of four provincial high schools, viz. Mogol, Bugandi, Cameron and Gordon to secondary status so that they can accommodate the new grades 11 and 12 classes. Funds provided by the European Union for the project

are ex-budget. The objective of the project is to increase access to grades 11 and 12 education for an additional 960 students.

Current Activities and Projects

Provincial High School Routine Maintenance

This is an ongoing project and its aim is to maintain and upgrade facilities in provincial high schools.

Rehabilitation of Facilities in Tertiary Institutions

This is an ongoing project and its purpose is to maintain and upgrade facilities in tertiary institutions.

Amalgamation of St Paul's and Kabaleo Teachers' Colleges

The intention is to expand capacity of this amalgamated college from 300 to 450 student places - and to construct the classrooms, technology block, computer room and.

Project Proposals

Support for Recurrent Activities under the Structural Adjustment Program (Phase 2)

The target area for future EU Support for Structural Adjustment Program (SAP) for 1997 and 1998 is likely to be on routine maintenance and equipment for provincial high schools and tertiary institutions.

Expansion of Access to grades 11 and 12 under the National Indicative Program (Phase 2)

A request has been submitted by the Department to the European Union for funding to upgrade four Provincial High Schools so that they can accommodate the new grades 11 and 12 in 1998. The schools are Popondetta High School in Oro Province, Mount Hagen High School in Western Highlands Province, Hutjena High School in North Solomons Province and Wabag in Enga Province. The four schools have been included in the EU National Indicative Program

Conversion of Selected Vocational Centres to Vocational Secondary Schools

Under the EU National Indicative Program four selected vocational centres will be upgraded and will be provided with materials and equipment.

Rural Elementary Schools

The European Union could make a most significant contribution in the development of Elementary schools, especially in the rural areas. The EU has accumulated some rich and, in PNG terms, quite unique experience in community mobilisation strategies through its Rural Water Supply Program - a similar approach could be taken and lessons applied to facilitating the building of elementary schools. An elementary schools development project sponsored by the EU would have the same philosophy: that the facilities constructed belong to the people, and they themselves provide much of what is needed for construction- land, bush materials and labour. If the EU is to pick up this project, it would develop it along the lines where certain materials are provided (iron sheets, water tank, cement, etc.) for community groups that demonstrate a commitment to building and managing their own schools.

3.3 Australian Agency for International Development (AusAID)

Completed AusAID-sponsored Projects

Community Teachers College Lecturers Development Project

This project was completed in December 1995 at a total cost of about K3.2 million. Funding for the project was through ex-budget arrangements. The objective of the project was to upgrade the qualification of serving lecturers from a teaching certificate or diploma to a first degree.

Supplementary Volunteer Teacher Supply

Implementation of the project commenced in 1995. It is a joint project between the Government of Papua New Guinea and the Government of Australia. AusAID through the Overseas Service Bureau is responsible for the recruitment, briefing and placement of volunteers to work as educators in educational institutions across the country, and the government of Papua New Guinea is responsible for paying the salaries for these volunteers.

Funds provided for the project by AusAID are ex-budget and those provided by the Papua New Guinea government are in-budget under the provincial education budget of the province in which volunteers are to serve. The project looks at the engagement of teachers and teacher educators under the Australian Volunteers Abroad program to work as teachers in secondary schools, vocational centres and lecturers in teachers colleges across the country.

First phase (1995) encountered serious problems of low recruitment and high attrition. Only 19 of the original recruitment target of 37 volunteers were placed, of whom 8 have returned home. Under the phase one extension, 3 volunteers were placed in January, 1996. There were only 14 of the originally planned 37 volunteers in-country at the project's mid-point. As a result AusAID proposed to review and assess the originally planned second phase after completion of the 1996 recruitment round when 4 more volunteers were scheduled to arrive. The total cost of the project to the Australian Government is approximately K1.2 million.

Curriculum Development Division Computers

The objective of this project was to provide the Curriculum Development Division with computers. The division needed additional computers to assist with the education reform. Together with the restructure of the system is the need to develop new curriculum for all levels of general education. AusAID will supply the following through the CASP mechanism:

48 computers and associated equipment including;
8 laser writers
8 Magneto optical drives
3 photocopiers, and software.
The cost of the project is approximately K700,000.00

Supply of Textbooks, Equipment and Materials to Grades 7 and 8 - Phase 1 & 2 (CASP)

Under this project textbooks, equipment and materials were supplied to the new grades 7 and 8 classes at primary schools which started in 1994, 1995 and 1996. The Australian CASP mechanism was used to supply the textbooks, equipment and materials. The total cost was about K10 million. Phase I deliveries are completed except for Simbu schools. Phase II and textbooks deliveries commenced before the end of March, 1996. Areas of concern were (i) storage/security of equipment (ii) the extent of in-service training for grades 7 and 8 teachers in curriculum and the use of the equipment, and (iii) the potential to achieve more sustainable results in any future such activity by using Department of Education's distribution system. The Department of Education needs to advise AusAID on these issues.

Support for Senior Officers Conference

AusAID provided funding for the 1996 and 1997 Conferences to cover the cost of experts who conducted workshop type activities during the conferences.

Expansion of Access to Grades 11 and 12

The project is jointly funded by AusAID and the government of Papua New Guinea. Under this project four Provincial High Schools are to be upgraded to secondary status. The four schools are Fatima, Kondiu, Papitalai and Namatanai. Funds that will be provided by AusAID will be ex-budget while those that will be provided by the Papua New Guinea Government will be in-budget. The objective of the project is to increase the grade 12 output by providing for 920 grade 11 and 12 students to be educated in the four schools.

The Project Implementation Document was approved in 1996. The construction contracts for major works have commenced. Both Fatima and Kondiu commenced enrolment of grades 11 and 12 students at the start of the 1995 school year. Stage 1 housing for Fatima, Kondiu and Namatanai have been fast tracked and houses were built in those schools. Australia is providing the infrastructure development, capital works, equipment, textbooks and materials for the four schools at a cost of approximately K15 million. The government of Papua New Guinea will request AusAID to upgrade St. Ignatius and Malabunga provincial high schools.

Current Projects

Secondary School Students Scholarship

This is an on-going project funded by AusAID and PNG. The Australian Government has made available approximately K66,000,000 for the project over the 5 year period (1993 to 1997). Papua New Guinea has also made available about K1,500,000 for the project under the recurrent budget for the same period. Funding provided by AusAID is through ex-budget arrangement. The objective of the project is to increase the grade 12 output by providing for 200 students to study in Australia every year. It was agreed following 1995 Project Review that the project be phased out. Hence, the 1997 intake (156 students, the same as for 1996) will be the last. Expenditure will continue until the end of the century when the last intake completes grade 12. The government of Papua New Guinea has requested that the project to continue for next 5 years.

Technical 'Home College'

This is a new project for improving the quality of technical education by moving same or similar courses currently spread through Technical and Business Colleges into one college where all related trades will be taught. This movement will serve as a prelude to the introduction of the AusAID funded Trade Testing Project and the implementation of the new two-year courses under the N.E.B approved rationalisation of Technical Education. AusAID has allocated K480,000 for this project.

Administrative delays in the establishment of the AusAID Trust Account with the Bank of Papua New Guinea and the establishment of the Technical Education Operating account with Westpac Bank prevented planned full implementation in 1995. Phased implementation is now proceeding.

Elementary School Materials

This project is aimed at addressing the immediate materials required for elementary schools. The long term need will be addressed through the proposed infrastructure and curriculum materials program.

The government of Australia has made a commitment to provide up to K2 million in financial year 1995/1996 for assistance in support of the Elementary Materials Supply Project. The arrangements for the purchase and delivery of these materials are as follows.:

1. Supply of 1,000 Elementary Preparatory and 500 Elementary Grade one kits containing books for translation and materials to make books;
2. Supply of 1,500 set of Linking Cubes and Pattern blocks for Elementary classes;

3. Supply of 15,000 students maths texts and 1,000 teachers maths resource books for Elementary Preparatory classes;
4. Supply of 7,500 students maths texts and 500 teachers maths resource books for Elementary Grade one classes;
5. Supply of 1,500 Elementary Number Card kits; and
6. Supply of metal shipping containers for storage.

The responsibilities of the government of Australia will also be to engage the services of a CASP purchaser and shipping agent to:

1. Undertake the purchase of goods; and
2. Deliver the goods to the Materials Unit, Curriculum Development Division, Department of Education, Waigani in Port Moresby.

The contributions of the Government of Papua New Guinea are:

1. Delivery of the equipment to the elementary teachers/schools in provinces from storage at the Materials Unit, Curriculum Development Division; and
2. Training of elementary teachers to use the materials and equipment supplied.

AusAID will deliver the kits to DOE store in Port Moresby from 1996. DOE will distribute them to teachers and schools.

Elementary Teacher Training- Phase 1

This project is aimed at providing advance funding for the Elementary Teacher Training Program to support the education reform. Funds provided for this project will be used on (i) Production and distribution of teaching Modules (1-3), (ii) Teacher training workshops and (iii) Supervision and monitoring of training. Thirteen provinces will be involved in the training program. They are:

Morobe
 NCD
 Central
 West New Britain
 Enga
 Madang
 Sandaun
 East Sepik
 New Ireland
 Milne Bay
 Southern Highlands
 Eastern Highlands
 Western Highlands

Several elementary teacher training workshops have been completed or are underway in some provinces. The Australian Government has made available K211,751.99 to the Department of Education. This fund is for first quarter elementary teacher training activities. The Department will need to submit another project proposal for elementary teacher training activities which are planned for the remainder of 1997-98.

Institutional Strengthening to Department of Education

This project is aimed at upgrading measurement services capacity and strengthening planning, management and implementation of education reform.

Under the strengthening of the Measurement Services Unit component, a new building for MSU will be built and equipped with computers, MSU staff will undergo some training and technical assistance will be provided. Construction is underway in 1998.

Under the Facilitating and Monitoring Unit (FMU) component, FMU officers will receive assistance so that they can work with provinces to develop their plans, statistical database for management, planning and monitoring will be established both at the national and provincial levels, training of RMPAs in computer based planning model, training of RMPAs and Provincial operators on database, trialing of national data collection, and training of Provincial Assistant Secretaries. AusAID will make available approximately K4,168,000.00 for the project.

National Trade Testing and Certification System

The objective of this project is to improve trade skills of graduates of technical colleges. Under this project existing technical colleges will be upgraded and equipped to serve as Trade Testing Centres. The project was initiated by the Department of Industrial Relations but the technical colleges will benefit from it. AusAID completed the design study for this project in 1994. Administrative delays, particularly the lack of staff in the National Trade Testing Board, have hindered implementation of the project. The project is to be implemented in 1998. The Australian Government has approved approximately K18,138,232.00 for the project.

Pilot Multigrade Teaching

The aim of the project is to pilot multigrade teaching in three provinces viz. West New Britain Province with 18 schools, Western Province with 18 schools and North Solomons Province with 3 schools. The objective of the project is to provide 90 participating teachers in the 39 schools with skills to enable them to successfully teach multigrade classes. AusAID has released K135,000.00 by means of an accountable cash grant for this project.

Support for Literacy Workshop

To support the literacy workshop on NGO networking.

Planned Projects

Primary and Secondary Teacher Education

This project has six components viz. Primary Teacher Education, Secondary Teacher Education, Special Education Teacher Training, Teacher Educators, Gender Equity Program and Infrastructure. Each component is described below.

(a) Primary Teacher Education

The basic need in primary education is to upgrade the skills of primary teachers, most of whom only have two years of training. Additional skills are required to (a) assist teachers with teaching multigrade classes so as to economise on teacher numbers; (b) assist children to make the transition from the vernacular to English as they transfer from vernacular elementary schools; and (c) assist teachers teach in Grades 7 and 8 as these classes are transferred to primary. For educational as well as economic reasons, most of these teachers will receive these skills through a mixed-mode model of distance education providing courses in the Diploma of Education Primary (Inservice).

The objectives and outputs of this component are to strengthen the pre-service and in-service training of primary teachers by:

- enhancing the teaching and learning resources in the CTCs;

- improved teaching methodologies;
- curriculum revisions;
- management and administrative training;
- upgraded content knowledge of lecturers;
- basic technology courses introduced;
- computers supplied and used for teaching and administration;
- model approaches to multigrade teaching and TESL introduced;
- PMIC staff trained in the use and management of distance education;
- Distance education materials developed and used;
- Residential component of training conducted at CTCs.

(b) Secondary Teacher Education

The Goroka University has become the sole national producer of secondary teachers with the transfer of all teacher education courses from UPNG.

The Goroka University has also been offering the B.Ed (In-service) for existing teachers with only two or three years of pre-service training. This program, while meeting a definite need, is not considered to be a cost-effective program as it requires both the payment of salary and a replacement salary in addition to the tuition and accommodation costs.

Consultations with the appraisal team confirmed that the NDOE would prefer to see this program offered by Goroka through a more cost-effective mixed model delivery. While Goroka does have some past experience with this mode through the Advanced Diploma in Teaching, the institution believes, and the appraisal team concurs, that external assistance is required to develop a sustainable capability in this area.

In summary, the consultants with the relevant authorities have confirmed that Goroka will need extra student accommodation and other facilities and strengthening of academic programs to meet the timetable of the education reform agenda as it applies to secondary education.

The objectives and outputs of this component are to strengthen the pre-service and in-service training of secondary teachers by:

- technical assistance through an institutional link with an Australian University with capability in secondary teacher education and distance education provision,
- provision of learning resource materials for the library and various departments,
- provision of additional computer hardware and software for student use;
- provision of support to introduce a mixed-mode delivery of the B.Ed(I) with additional support for the first 2 cohorts of students;
- re-equipping the science laboratories to a standard appropriate for degree level teacher training; and
- provision of additional female dormitory accommodation.

(c) Special Education Teacher Education

The right of each child to integral human development is constitutionally based. Given this, the objectives of this component are to support the in-service and pre-service education of teachers in the area of special education in order to strengthen the provision of educational services to students with disabilities, learning difficulties and behaviour problems in Papua New Guinea.

It is likely that the incidence of disability and thus demand for Special Education has been recognised but underestimated in Papua New Guinea due to the focus being placed on children with manifest disabilities.

An Appraisal Mission found a concern regarding the relevance of training experiences from developed countries and identified strong support for project supported trainee positions to be targeting SERC staff who do have extensive hands-on experience.

The specific outputs of the project relating to Special Education are:

- an increased capacity in teachers to address the educational needs of students with special needs: ie. students with disabilities, learning problems and behaviour problems;
- the availability of mandatory courses in Special Education in all CTCs;
- an increased capacity in teachers to address the educational needs of students with special needs: ie. students with disabilities, learning problems and behaviour problems;
- the availability of mandatory courses in Special Education in all CTCs;
- an improvement in the skills of staff at all Special Education Resource Centres (SERCs);
- an increased leadership capacity in ten key teachers chosen to study in Australian Universities in the Special Education area;
- the availability of relevant materials and equipment in SERCs for the particular needs
- an improvement in the skills of staff at all Special Education Resource Centres (SERCs);
- an increased leadership capacity in ten key teachers chosen to study in Australian Universities in the Special Education area;
- the availability of relevant materials and equipment in SERCs for the particular needs;
- an increased capacity in teachers to address the educational needs of students with special needs: ie. students with disabilities, learning problems and behaviour problems;
- the availability of mandatory courses in Special Education in all CTCs;
- an improvement in the skills of staff at all Special Education Resource Centres (SERCs);
- an increased leadership capacity in ten key teachers chosen to study in Australian Universities in the Special Education area;
- the availability of relevant materials and equipment in SERCs for the particular needs of students with complex learning needs;
- skills strengthening and upgrading for staff in the Special Education Unit of NDOE in the areas of Special Education planning, management, administration and curriculum development; and
- housing provided at CTCs for lecturers in special education.

(d) The Teacher Educators

In the long run, the sustainability of the specific project outputs in the areas of elementary, primary and secondary teacher education will depend on the quality of teacher educators.

Consultations revealed a very strong need to strengthen administrative support systems in the CTCs and PMIC and to provide professional development and management training for the college principals, the campus manager, library, bursar and registrar.

The objective of this component is to support the further training of teacher educators and educational leaders. The specific outputs of this component are:

- provision of professional development programs;
- educational management workshop conducted;
- institutional linkage developed with an Australian university; and
- technology based network established for teacher educators.

At the CTCs, it is recommended that a small number of training awards be provided within the project for institution and system leaders in educational leadership and management. Further, capacity for localised professional development programs will be enhanced through support and training for two Professional Assistance Teams. Academic staff at CTCs are isolated from their peers, both nationally and internationally. Provision of a technology-based network for teacher educators will help to overcome this professional isolation and facilitate networking. This will be particularly valuable for female staff.

The first priority at the Goroka University, under its staff development plan, is to upgrade all lecturer qualifications. An institutional link under the PDD with an Australian University with strengths in teacher education and distance education would be extremely beneficial in helping Goroka to consolidate the pre-service degree level program and build capacity for B.Ed and M.Ed. through mixed-mode delivery mechanisms. Such a link will also play a major role in providing formal study opportunities for teacher educators in the community teachers' colleges.

(e) Gender Equity Program

Although women in PNG are given Constitutional recognition, they have less educational opportunity and are expected by many to play a subordinate role in political and social life.

The education system in PNG is characterised by low female participation rates. The Women's Policy of the Government of PNG aims to increase participation by women as both beneficiaries and agents in the development process and improvement in the quality of life for all. However, progress has been slow with the absence of any systematic processes or institutional mechanisms to address the imbalances and constraints.

An earlier AusAID-Government of PNG Project Design Team found that most in-service training of teachers is for general upgrading or for content knowledge in specific subjects with no attention to preparing teachers to understand gender issues in curriculum content, subject-based curriculum materials, teaching strategies or in teacher-student relations in the classroom.

The objective of this component of the project is to develop and strengthen primary and secondary teachers' ability to actively promote gender awareness and equity in all aspects of education. The specific outputs of this component are:

- Provision of gender equity specific teaching resources to all CTCs, PMIC and Goroka;
- Incorporation of gender equity into development of new and revision of existing curriculum materials;
- Incorporation of gender equity into development of teaching practices;
- Equal access of female staff to computer training;
- An additional 200 female secondary teacher education graduates;
- Equal access of female staff to overseas attachments;
- Development of materials to promote teaching careers to women;
- Development of support structures for female students at all CTCs, PMIC and Goroka; and
- Development of a gender studies module for both the DEP(I) and B.Ed (I).

A significant number of activities in this component are related to ensuring the sustainability of advances made in gender equity during the life of the project. Strategies are included to facilitate the appointment of a NDOE Gender Equity Adviser and Gender Awareness Resource personnel at CTCs, PMIC and Goroka.

(f) Infrastructure

The main considerations in formulating the infrastructure plan were: the avoidance of duplication, the provision of facilities at a standard appropriate to PNG, the sustainability of the upgraded facilities in terms of maintenance and the need to undertake the projects as early as possible to enable dependent teacher training initiatives to commence as programmed.

The objective of this component is to support the teacher education activities by the provision of additional infrastructure and renovation of existing facilities. Specific outputs include:

- Upgraded and expanded Madang CTC;
- Upgraded Balob CTC;

- Upgrading of St Benedict's and Holy Trinity CTC to accommodate advisers, a computer room and a technology block;
- Liaison with EU in development of Kabaleo CTC;
- Enhanced teaching and learning resources at each CTC by way of renovated and expanded library facilities;
- Upgraded female dormitory facility at Goroka;
- Renovated 3 science laboratories at Goroka;
- Upgraded facilities at PMIC to accommodate distance education materials development and dispatch, and advisers;
- Provision of technology blocks at CTCs; and
- Provision of facilities at Goroka for distance education materials development and dispatch.

The team kept the European Union (EU) consultants informed of PDD requirements because of anticipated EU funding of capital works at Kabaleo. AusAID funding is linked to these EU activities and will provide furniture, equipment and a limited capital works program.

Female Participation

The aim of the project is to increase female participation in education and training.

Project Proposal

Education Infrastructure and Equipment and Materials Program

This program will be piloted in five provinces in 1998 viz. Morobe, Eastern Highlands, West New Britain, Gulf and National Capital District.

The Project Identification study was completed in March-April, 1996. The study identified the following Projects.

Elementary Classrooms and Curriculum Materials

The Project Identification Mission made a number of proposals for this project. They are as follows:

1. for rural elementary schools, provision of building materials will be made and the community to undertake the labour;
2. for urban elementary schools, cash grants are suggested but the community must provide a matching cash and labour; and
3. as part of this package curriculum materials will be supplied.

Primary Schools Infrastructure and Curriculum Materials

Under this package the proposals are that classrooms which will be vacated by grades 1 and 2 will be converted to specialist teaching spaces. A new double classroom block for administration/library and storage will be constructed. The upgrading of services will be made and textbooks will be supplied.

Community Schools Infrastructure and Library Books

The proposals are that existing school buildings will be upgraded, repaired and renovated and library books will be supplied to the schools.

High Schools Infrastructure and Curriculum Materials

The proposals are that existing school buildings will be converted to laboratories, new dormitories will be constructed and library books and curriculum materials will be supplied to the schools.

Upgrading of Department of Education Materials Distribution and Supply Unit Store

The proposal is to upgrade the print shop and materials stores and the training of national and provincial staff.

Development of Infrastructure Guidelines

This project proposal aims to develop and produce standard classroom designs to assist provinces in infrastructure planning. There are a large number of school sites which will require the same works packages. Standardisation will simplify project delivery, enable economies of scale in purchase and simplify asset management and maintenance.

Strengthening Provincial Infrastructure Planning and Management

This project proposal is aimed at strengthening provincial infrastructure planning skills of Department of Education staff and technical skills of Department of Works provincial staff so that they can provide technical assistance to the provinces. Training of selected staff is proposed.

Primary School Equipment - Phase 3

The aim of this project proposal is to supply the 1997 Primary schools with school equipment using the CASP Mechanism. A formal request has been made by the National Planning Office to AusAID.

Non-Formal Education Review

The aim of the project is to review existing literacy programs in the country.

Commonwealth of Learning - Vocational and Technical Teacher Training

This proposal is for the use of the Commonwealth of Learning Distance Education Mode of Teacher Training in Papua New Guinea.

St. Ignatius Provincial High School Upgrading

To upgrade the school so that it can offer grades 11 and 12 education.

Secondary Schools Equipment (CASP)

The aim of the project is to supply the school equipment to the four secondary schools to be upgraded by the European Union.

UPS for Measurement Services Unit

The aim of the project is to provide UPS to Measurement Services Unit

New Proposals and Activity Briefs

The following table lists possible activities, projects and programs suggested to be included in the joint program by PNG and other officials during the course of the mission's visit to PNG. The following list is not in order of priority.

Program/Project

Basic Education - E2 English Radio Project
Primary language and library kits project
Grade 1-6 materials supply

Junior Secondary - Vocational Secondary School Project
 Grade 9-10 materials supply
 Vocational infrastructure, equipment and materials program - Senior Secondary school equipment supply
 New secondary schools
 Technical education rationalisation program
 Sector-wide strengthening financial management and reporting
 Open learning/distance
 Management Information System (MIS) development for NDOE
 National Education Plan updating and prioritisation
 Education reform community awareness
 Senior staff development for management and administrative skills (includes executive development)
 District level administrative/supervisory support
 Measurement Services Unit uninterrupted power supply and Curriculum Development Division site generator supply
 Non-formal materials supply for TPPS and Adult Literacy kits (UNPG, Waigani) - Quality assurance assistance
 Strengthening of computer facilities and literacy
 Improved student amenities
 Assistance to develop programs in local level public sector accounting
 Assistance to develop allied health programs
 Development of centre for science education, including upgrading of science equipment and biodiversity research
 Development of University Press facilities to enhance capacity for local book production
 Development of a design and research centre and a listening laboratory for Faculty of Creative Arts.

3.4 World Bank

Current Projects

The World Bank provides funds for the Education Development Project. The life span for the project is five years, commencing in 1993 and terminating in 1997. This timeline has been extended to the end of 1998. Funds for the project are in-budget and are reimburseable on the basis of monthly expenditure reports. The Education Development Project consists of eight sub-projects as follows:

Library Development

The objective of this project is to promote literacy and improve the quality of education by providing appropriate library books for community, provincial high schools and national high schools and CODE centres. The total amount of money available for the project for the five-year period is K2,500,000.

Development Maintenance

The objective of this project is to upgrade the standard of facilities in provincial high schools, vocational centres and CODE by carrying out appropriate capital works in these institutions. The total cost for the project is K7,600,000.00.

Project Implementation Unit (PIU)

The objective of this project is to ensure smooth co-ordination and management of the World Bank funded projects. The PIU has been established within the Department of Education to perform this function. The total cost for the project over the planned period is K900,000.00.

Regional Management and Planning Advisers (RMPA)

The objective of this project is to improve the management and planning of education in the provinces by training Regional Planning Advisers who will then work with Provincial Education Planners to produce plans. Currently, three trainees are being trained. The total cost for the project over the planned period is K500,000.00.

Curriculum Development Reform

The objective of this project is to improve the quality of education at all levels of general education by reviewing, developing, printing and distributing curriculum materials to the schools. The agreed funding for the project over the planned period is K15,000,000.00.

Expansion of Inspections and Guidance officers

The objective of this project is to improve the quality of the advisory, inspection and supervisory functions of the Education Department by increasing the number of inspectors and guidance officers. The agreed level of funding over the planned period is K2,500,000.00.

Certificate of Business Studies

The objective of this project is to improve the quality of education provided through CODE by reviewing and upgrading the Business studies being offered. The cost for the project over the planned period is K300,000.00.

Expansion of Access to grades 11 and 12 (Malala and Hoskins)

The objective of this project is to increase access to grades 11 and 12 by upgrading facilities at Malala and Hoskins to accommodate 480 grade 11 and 12 students in the two schools.

Project Proposals

The World Bank has verbally agreed to fund a literacy study to map all literacy programs in the country and to explore best practices at a range of sites in 1998/99S. The cost is some US\$162,000.

3.5 Asian Development Bank (ADB)

Current Projects

Tertiary Training

The aim of this project is to improve the quality of manpower training through intensive academic staff development programs funded by the Bank.

Project Proposals

Vocational/Technical Education Policy Study

Under this project proposal technical assistance is requested to carry out a policy study to determine future direction of both vocational and technical education.

Vocational Education

The reform agenda calls for the development of a new system of Vocational Secondary Schools. These new schools will offer grades 9 and 10 academic subjects which are biased towards the trades courses. The curriculum will be modified to make it more community oriented with emphasis on business skills and self employment. The objectives of the project are to make vocational education more relevant to the needs of the community and to the aspiration of the students, and to improve the current low status

of vocational education to a high level. The Asian Development Bank has commenced a pre-feasibility study into this area, with a view to link training to development.

Technical Education

The objectives of this project are to improve the quality of technical education by extending the training period from one year to two years and to develop specialised colleges by relocating similar trades courses which are currently spread out under one college. This will mean that each college will become specialised in one trade course only and thus the problems of duplication of courses and under-utilisation of valuable facilities, equipment and staff could be avoided. The Asian Development Bank has commenced a pre-feasibility study into this area, with a view to link training to development.

3.6 German Development Agency (GTZ)

Current Projects

Pilot Vocational Training

The objective of this project is to find ways of improving the quality of vocational education by developing relevant curriculum, training teachers to teach the curriculum developed under the project in five pilot vocational centres across the country.

The project is jointly funded by the governments of Germany and Papua New Guinea. The Papua New Guinea contribution is in-budget while that for Germany is ex-budget. An evaluation study of the project began in 1997. The aim of the evaluation is to find out what was gained and what was not. A workshop will be conducted as part of the evaluation to work out how to proceed with the next phase.

Project Proposals

There are no new project proposals as yet for Germany.

3.7 New Zealand

Current Projects

PNG/New Zealand School Journal

The objective of this project is to promote literacy and to improve the quality of education by developing and producing Papua New Guinea School Journals. The project is jointly funded by the Governments of New Zealand and Papua New Guinea. Funding for this project is both in-budget and ex-budget. The total cost for the project is K1,594,600. In 1995, New Zealand has made available K330,000 and PNG made available K71,600.

Secondary Education Scholarship

This is an on-going project funded by New Zealand and Papua New Guinea. The New Zealand Government has made available approximately K1,127,000 for the project over the five-year period. The objective of the project is to increase the grade 12 output by providing for up to 60 students to study in New Zealand every year.

Project Proposals

Technical and Vocational Education Training (TVET) Support

The aim of the project is to train Technical and Business Colleges staff and Head Office staff using institutions in New Zealand.

3.8 United Nations

Completed Projects

Support For Elementary Education

UNICEF has maintained an active interest in and has provided some funding for key reform activities including training of elementary teachers, piloting of elementary education, support for senior officers conference and exposing some senior officers to the successful educational innovations in other countries.

Training of Regional Management and Planning Advisers

UNESCO and UNDP have been involved in the implementation of this component of the Education Development Project funded by the World Bank.

Current Projects

Population Education Project

The objective of this project is to educate students about population issues by incorporating such issues in the curriculum.

A project document has been completed and submitted to the National Planning Office for the purpose of securing funding from the United Nations Population Fund.

Project Proposals

Adult literacy and Vernacular Story Writing

The aim of the proposal is to provide support for the literacy program and for the vernacular story writing. Discussions have been held between officials of the Department of Education and UNICEF regarding potential assistance.

3.9 China

Current Projects

Expansion of Upper Secondary Schooling (Warwin NHS)

The objective of this project is to increase access to grades 11 and 12 by building Warwin National High School so as to provide opportunities for an additional 500 grades 11 and 12 students to be educated at the school. The current situation regarding implementation of the project is not clear.

Project Proposals

There are no new project proposals as yet for China.

3.10 Korea

Completed Project

Computerisation of Port Moresby Business College and Lae Technical College

Under this project 50 computers were provided to Port Moresby Business College and 20 computers were provided to Lae Technical College for students use.

Project Proposals

There are no new projects proposals as yet for Korea.

Projects Transferred to Provinces in 1996, 1997 & 1998

Expansion of Access to Grades 7 and 8

This is an ongoing project currently funded by the Government of Papua New Guinea.

The objective of this project is to increase access to grades 7 and 8 by establishing primary schools under the education reform. Following the reforms in the Organic Law on Provincial Governments and Local Level Governments in 1995, the responsibility for the funding of the project has been transferred to provinces commencing in 1996. Each province is now required to budget for this project.

Expansion of Access to Grades 11 and 12 (Secondary Schools)

This is an ongoing project currently funded jointly by the Government of Papua New Guinea and a number of overseas donors. The objective of this project is to increase access to grades 11 and 12 by establishing secondary schools under the education reform. Following the reforms in the Organic Law on Provincial Governments and Local Level Governments in 1995, the responsibility for meeting the PNG contribution relating to funding of the project has been transferred to provinces commencing in 1996. Each province affected by this is now required to budget for this project.

Lower Secondary School (High School Support Phase 1 and 2)

This is an ongoing project currently funded by the Government of Papua New Guinea. The objective of this project is to increase access to high school for students in disadvantaged areas/provinces by constructing 8 high schools, and to upgrade selected schools in the Eastern Highlands Province. The schools are as follows:

1. Aiome - Madang Province
2. Dreikikir - East Sepik Province
3. Kikori - Gulf Province
4. Kompjam - Enga Province
5. Onamuga - Eastern Highlands Province
6. Palmamal- East New Britain Province
7. Pogera - Enga Province
8. Salamaua - Morobe
9. Upgrading of selected schools- Eastern Highlands Province

Following the reforms in the Organic Law on Provincial Governments and Local Level Governments in 1995, the responsibility for the funding of the project has been transferred to provinces commencing in 1996. Each province affected is now required to budget for this project.

High School Support Phase 3

This is an ongoing project currently funded by the Government of Papua New Guinea. The objective of this project is to increase access to high school for students in disadvantaged areas/provinces by constructing 10 new high schools, and by upgrading 2 existing high schools - one in Morobe Province and the other in Sandaun Province. The schools are as follows:

1. Jimi - Western Highlands Province
2. Lumulumu - Southern Highlands Province
3. Daulo - Eastern Highlands Province
4. Okapa - Eastern Highlands Province
5. Arona - Eastern Highlands Province
6. Kopen - Enga Province
7. Kubafia - East Sepik Province
8. Nomad - Western Province S
9. Morehead - Western Province
10. Navae - Morobe Province
11. Wasu Upgrading - Morobe Province
12. Telefomin Upgrading - Sandaun Province.

Following the reforms in the Organic Law on Provincial Governments and Local Level Governments in 1995, the responsibility for the funding of the project has been transferred to provinces commencing in 1996. Each province affected is now required to budget for this project.

4. Possible Projects to be Assisted by the Government of Japan

4.1 Introduction

The recent practice of the Government of Japan to support education in Papua New Guinea suggests a preference for specific infrastructure development projects such as the Port Moresby National High School.

The construction of the high school has been a very visible project and displays the best design and construction work of the Government of Japan and its people. The school is an outstanding educational structure which has contributed to the significant results gained by students from the school in the 1997 national grade 12 examinations. The school is rated as the most successful high school in 1997 based on those results.

Despite these achievements, there has been some criticism voiced by people participating in this study in relation to the cost of the project at some K20 million. The estimated relative cost of constructing a provincial high school is some K1.8 million and the estimated cost of construction of a national high school by the National Department of Education is some K6 million. In addition to the costs of construction of the school, there has also been criticism of the expected high costs of maintenance on the building and its facilities which will have to be met from the budget of the Department of Education in future years.

Maintenance costs associated with infrastructure development assistance have traditionally been the responsibility of recipient countries and often the presence of maintenance programs relate to the ability and the planning skills of Government and the associated line department. Indeed, a senior representative from the builders of the Port Moresby National High School, Fletcher Morobe, argues that the school was designed by the Japan design team as a low maintenance facility. As long as regular activities, such as cleaning, are carried out there should be little expense in maintaining the buildings over the long term.

Nonetheless, the issue of maintenance and the lack of recurrent budget funding to support maintenance programs have affected, and continue to affect, many infrastructure developments within the country. Several overseas aid organisations such as the World Bank and the European Union recognise the dwindling budget position of the Government of Papua New Guinea and are prepared to support infrastructure developments with on-going funds for maintenance for a number of years after initial construction. Indeed, so bad is the situation regarding the lack of funds for maintenance that the European Union directly supports maintenance expenditure programs as part of its aid commitments.

Large Scale Infrastructure Development Projects

There are several possible projects that could be pursued by the Government of Japan which are consistent with the practice of large scale infrastructure developments. Two projects, in particular, were mentioned several times during the process of this study.

- A Primary Teachers' College to be established in the Southern Region of the country.

The Department of Education put a proposal for such a college to the Japan International Cooperation Agency in 1996 at a cost of some K15.8 million. It was argued, in that proposal, that there was a need for such a college because potential teachers in the Southern region were not keen to gain teacher training outside of their provinces due to the increased lawlessness in the country. In addition, some of the existing primary teachers' colleges were not prepared to increase their enrolments to a level which would satisfy the increasing demand for teachers over the next decade.

This proposal was put forward at a time when the Department was advocating the closure of two existing primary teacher's colleges as a part of the rationalisation of the number of colleges in the

country. It is understood that several senior and influential staff within the National Department of Education does not support the construction of such a college preferring to support and develop the existing colleges.

In that regard, for instance, Kabaleo Teacher's College and St Paul's Teacher's College in East New Britain are amalgamating but at present the male students from St Paul's travel some 100 kilometers each day to attend lectures at Kabaleo. The European Union has committed some K6 million to the construction and upgrading of dormitories and classrooms at Kabaleo but admit that these funds are insufficient to meet all of the infrastructure needs brought about by the amalgamation. Additional funds from other sources are desirable.

- The construction of six secondary schools.

The education reform requires the establishment of a secondary school in each province by the year 2004. AusAID has upgraded four existing provincial high schools to secondary status, namely, Papitalai, Kondiu, Falima and Namatanai. It plans to carry out work at Malabunga and St Ignatius schools as well.

The European Union has also completed upgrading work at Bugandi, Mogul, Gordon and Cameron schools to bring them up to secondary school status. The European Union plans to upgrade four more schools at Popondetta, Wabag, Mt Hagen and Hutjena.

The budget for each of these projects is in the vicinity of K2 million.

There is a need for a further six secondary schools throughout the country. The National Capital District requires a further two secondary schools because of the large number of grade ten leavers in the NCD who cannot find places in grade eleven.

The Government of Japan may be in a good position to assist with further highly visible projects.

Another highly visible project provided by the Government of Japan is what is referred to as Grant Assistance for Grassroots Projects. These grants are applied for through the Embassy of Japan and are available to NGOs, hospitals, primary schools, research institutes and other non-profit associations to help implement their development projects. There are a number of requirements for eligibility for these grants and applications are made in writing. Grants would not normally exceed US\$100,000.

These grants are quite flexible and have been successfully sought after in Papua New Guinea mostly by primary schools which require new buildings to expand enrollments to include grades 7 and 8 under the education reform initiative.

A high level of positive publicity has been achieved through these projects for the Government of Japan. There has been some criticism of the grants in that some schools are able to receive benefits whereas other schools in the same area are unable to complete the necessary application forms and there is a perception that the grants lead to uneven development.

Nonetheless, the flexibility of the grants and the target activities suggest that there may be a greater need for funding along these lines but that it also be made more broadly-based and assist a much larger number of people and communities.

Alternative Approaches to Development Assistance

A number of participants interviewed in this study have suggested alternative approaches by the Government of Japan in the use of its development aid assistance. It has been suggested that education and the reform program are likely to benefit more from a flexible approach to funding arrangements, such as the non-project grant assistance provided by the Government of Japan, and based on a focus which is more broadly-based as opposed to the development of a single large scale project.

Several examples are provided:

- Solar lighting kits are being installed in 320 primary schools throughout the country. The Government of Japan supports this project. This project has proven to be extremely popular and worthwhile. There is a strong demand for it to be extended to all primary schools in Papua New Guinea. The installation of these kits at an individual school level is rather small but the aggregate effect is to enhance the quality of education that takes place in remote and isolated areas of the country. There is a considerable spillover effect of such assistance and the long term benefits for individuals and communities are immeasurable.
- VHF and UHF radios have been provided to Health Centres in the Madang province over the past five years. The widespread installation of radios has successfully overcome administrative, logistic and supply problems that characterised health work in the past. Similarly, teachers are prone to leave their classrooms and travel to provincial urban centres in search of missing pay cheques, the purchase of supplies and equipment and attending to administrative matters.

The installation of radios in all primary schools throughout the country would greatly reduce the uncertainty of the teacher in the classroom which has been identified as the crucial factor in the provision of quality education and a matter to be resolved under the education reform program. Any strategy aimed at maximising teacher attendance and classroom presence will have significant benefits for children and time on task measures of school effectiveness.

- The provision of wokabout sawmills in all education districts of the country would enable the construction of elementary and primary school classrooms. It would also facilitate the construction of appropriate housing for elementary teachers, district trainers, inspectors and district resource people. Local communities using local resources could also construct office, storage and training facilities for district education co-ordinators and trainers. The present practices of importing building materials into local areas is expensive and time consuming and tends to exclude community ownership, participation and responsibility for local development and the expansion of educational facilities.

Such a broad-based approach to development can also be extended to developing the technical capacity of Papua New Guinea nationals to gain valuable work experience and industrial experience in the construction phase of buildings under the supervision of technical advisers from Japan skilled in vocational education and training in a practical project environment.

These three examples are broadly-based activities which, would have significant benefits for education. The provision of equipment grants in these areas could be investigated.

Another approach to development assistance is for JICA to concentrate on one sector of education such as vocational and technical education or higher education. Vocational education, for example, has been reported elsewhere in this study as less developed than other sectors of education. The existing 110 vocational centres require a great deal of assistance in terms of staff training, curriculum development and infrastructure development. The German Government supports five pilot vocational centres and it has introduced new curricula, increased staff development opportunities and provided funds for new buildings and equipment. This pilot program is to be extended to an additional nine centres in 1999 but it still leaves many vocational centres without any likelihood of assistance for many years to come.

JICA through its grant aid program may consider working in a multilateral way with German and Papua New Guinea Governments to stimulate developments more widely within vocational centres.

In addition, new local and small scale vocational training institutions are also required to support the education reform initiatives and to provide further training opportunities at the district level for those students who do not progress to secondary schools. For instance:

- There is a need for the establishment of an estimated 100 Rural Training Centres comprising of a double classroom type facility incorporating two classrooms, office and storeroom. The facility would be equipped with a solar electricity kit capable of powering equipment such as a television and video, photocopier, fax and computer and incorporating two-way radio communications.

In addition, specialist equipment and associated maintenance facilities would be required to support particular training programs in areas such as rice, vegetable, coffee, small sawmill operations, tailoring, light vehicle maintenance and welding.

A commonly held view of participants in the study is that experts and volunteers from Japan are particularly helpful but are not used frequently enough in Papua New Guinea to sustain development assistance. An example is available in relation to the development of the Literacy and Materials Production (LAMP) centres which received computer and risograph equipment in the past. A number of the centres have experienced difficulties in meeting reasonable levels of productivity due to poor understanding and skills relating to the use of the equipment. Some centres had the advantage of volunteers from Japan to assist with training and maintenance but other centres did not have such assistance. Much greater emphasis needs to be given to the use of experts and volunteers to support equipment initiatives if there are to be long term benefits and gains for education.

The participants involved in this study had many ideas in relation to development assistance projects in which the Government of Japan could play a role. The following pages present a number of these ideas.

It is of interest to compare these ideas with the lists of project proposals presented earlier in Section Three of this report. The National Department of Education has developed a reputation for taking the same development proposal to a number of donor organisations simultaneously, causing some confusion and misunderstanding and, at times, resentment from donor organisations who discover at some stage that they are evaluating a proposal at the same time as another donor organisation. The Kiunga High School upgrading proposal appears to be an example of this and there is little interest in the project now by any donors. Similarly, the proposal to map and assess literacy programs around the country was submitted to the World Bank and AusAID without any co-ordination. Both organisations looked favourably on the proposal and were interested in funding the initiative but the World Bank, which processed the submission faster, was asked to proceed with funding to the annoyance of the Australians who had put in time and money considering the proposal at the same time.

In its defence, the National Department of Education is responsible for looking after the education of children and it claims that the lengthy delays in processing submissions works against that mission.

4.2 The National Department of Education

The Department of Education seeks to ensure that all future donor projects are in accord with the National Education Plan, and the Higher Education Plan, particularly in relation to improving access and equity in education and training.

In order for the education system to make good use of donor assistance, efforts should be made to match requests for development assistance with existing Provincial Education Plans which have now been developed for most provinces. On some occasions, the 'Grassroots' funds which are approved by the Embassy of Japan are not always consistent with provincial and district education plans which makes planning and development more difficult for provincial education authorities.

The Department of Education anticipates that all future donor projects should be consistent with the following policy framework:

- a. the official treaty signed between the Government of Papua New Guinea and the donor country;
- b. the requirements of the education reform;
- c. the National Education Plan;
- d. the Government's policy on Universal Primary Education;

- e. the Government's policy on improving the transition rate from grade 10 to 11 from 10% to 25%;
- f. the Government's Medium Term Development Strategy (MTDS); and
- e. the Government's priority programs as outlined in the MTDS

Donor programs, projects and activities in education often have requirements for counterpart funding and other support to be provided by the Government of Papua New Guinea. Some counterpart funding should be budgeted for in provincial budgets and some within the budget of the National Department of Education.

Under the new Organic Law on Provincial and Local-level Governments, the Department of Education is responsible for policy formulation, curriculum development and maintenance of standards and teacher training. Therefore, it will provide counterpart funding for donor projects, which relate to those areas.

Provinces on the other hand are responsible for all matters relating to elementary education, primary schools, secondary schools, vocational centres and technical high schools except curriculum. Therefore, they are to provide counterpart funding for donor projects which relate to their areas of responsibilities.

The National Planning and Implementation Office is responsible for the development budget and sourcing of counterpart funding. The Office admits that there is a shortage of counterpart funds and that development projects suffer as counterpart funds are channeled into other projects in Papua New Guinea. Expansion of the solar power project for schools is suffering as a result of the lack of counterpart funds from the government. The relatively new arrangements under the Organic Law for provinces to be responsible for the allocation of counterpart funds for a range of projects is unlikely to improve the situation but rather is more likely to exacerbate the situation.

Development aid organisations may need to consider more carefully the use of grant aid assistance to overcome the constraints placed on otherwise sound and effective development strategies because of the lack of counterpart funds available to a specific project from the Papua New Guinea Government.

Provinces seeking overseas aid assistance are meant to pass all proposals through the national Planning Office but there are examples of provinces dealing direct with aid agencies and not informing the Planning Office, and overall planning and development strategies endorsed in the medium term development strategy is thwarted. Liaison between provinces, line departments, the Planning Office and aid organisations are fundamental and needs to be strengthened.

The National Department of Education has been concentrating, up to the present time, on development projects aimed at improving access and equity in education. The following are suggested projects that require development assistance and may be of interest to the Government of Japan.

There is increasing concern about issues relating to quality which is evidenced by the interest of the Department of Education in the establishment of a number of qualitative indicators (see Section 2, point 2.4 of this report) to judge the outcomes and the worth of the reforms. The Government of Japan may want to consider assisting projects which will add to the quality of the reform system that is mostly in place. This implies a broad-based approach to development rather than specific large-scale projects.

For instance, buildings such as classrooms, resource centres, offices and storage facilities are needed to support the elementary and primary school reform program. Teachers housing is also important and a necessary requirement to attract and keep teachers in isolated areas. Teachers have been given a central role in the establishment of quality in education and the Government of Japan is in a position to assist with the upgrading of teacher skills, the facilities in which they work and the curriculum materials with which they work.

The provision of equipment such as solar power, permanent radio communication networks within provinces and the provision of such things as reliable water supplies will make teaching in isolated areas more attractive to teachers.

Elementary Education

Several projects are recommended for further investigation and consideration.

- Despite the emphasis placed on elementary education there is in fact little expertise within the National Department of Education in this sector of education. AusAID has a teacher materials production group in place but this team ceases work in 1999. There is an apparent gap in the ability of teachers to develop curriculum materials. Selected curriculum development staff, trainers, and staff of the Port Moresby Inservice College need to enrol in higher degrees in early childhood education or to attend attachments in Japan to observe possibilities and approaches to early childhood education.
- The education reform program states that elementary teachers and local communities will be responsible for detailed curriculum development. The Curriculum Development Division is not in a position to offer anything other than broad guidelines for elementary curriculum because of the vast number of languages which will be used in the elementary schools. There is a significant mismatch in elementary teacher competencies to develop curricula and indeed to effectively mobilise communities to be engaged in the long term with curriculum development for their local elementary schools. This is a serious issue and although there is some evidence that some communities are working effectively it remains a potential problem which could severely constrain early childhood growth and development. The Department's efforts to provide training in this area to date have been minimal. Greater use of school cluster workshops in order to develop skills and knowledge and to share experiences is required together with formal training opportunities.

The practices and experiences of early childhood education in Japan suggest that the Government of Japan could play a leading role in supporting curriculum development workshops to develop effective locally based curricula at the elementary school level.

- LAMP centres need to be continued and expanded but combined with a high level of long term technical assistance. The software tends to be too complex especially when people move and replacements are not given little, if any, training by local education authorities. Computers and risographs need regular maintenance. There is a need for one volunteer in each of the four regions of the country who travels to provide technical and maintenance training. Many of the LAMP centres are based in temporary conditions, which contributes to the unreliability of the equipment. A strong case can be made for the construction of an appropriate Lamp building to encourage reliability, productivity and a professional response to the quality of materials developed.
- There is also a need to support personnel engaged in early childhood education. Elementary co-ordinators are placed in each province in provincial centres together with trainers at the district level and, of course, elementary teachers at the school level. Adequate accommodation and office and storage space is lacking for these staff. The provision of wokabout sawmills offers the possibilities of facilitating such infrastructure development at a relatively low cost especially at the district and school levels.

Primary Education

Primary schools will benefit greatly from the expansion of the solar power project and the installation of radios which were previously mentioned. These two projects link directly to the drive for quality in education. Another area of concern, and it also relates to the issue of quality, is the establishment of library facilities in primary schools throughout the country.

- Very few primary schools have a building to house whatever reference and text books and general reading material that is possessed for students. The National Library offers a Kina for Kina subsidy to all schools for the procurement of library books. This has been an extremely useful project and

school libraries have benefited as a result. More and more, primary schools are taking advantage of this particular scheme as well.

There is a need for design work for a relatively simple and compact library building design which can be readily built throughout the country. Such a facility would need to accommodate 25-30 students at a time and require office space for a teacher responsible for the library.

Libraries may be placed in districts, which can act as a shared resource, but many primary school boards will be interested in establishing such a library within their own school grounds.

- A library building would benefit from suitable equipment, such as shelving and an audio-visual package, to add to the quality of teaching and learning. The development of the National Education Media Centre at the Curriculum Development Division in Port Moresby by the Government of Japan needs to be supported with suitable equipment for use at the point of teaching in order to best use the audio-visual aids which will be developed by the Media Centre.
- The previously mentioned solar power kits and wokabout sawmills can be effectively employed in the construction and electrification of a library facility.

Secondary Education

Projects for support at the secondary level are limited because of the AusAID investment in secondary education infrastructure and facilities in the past.

Nonetheless, several projects are suggested for consideration:

- The installation of UHF or VHF radios in high schools throughout the country will achieve similar outcomes to those referred to under primary education earlier on in this Section of the report. The use of radios would greatly enhance the operations of high schools particularly those situated in more remote parts of the country.
- There will continue to be many Grade 7-10 high schools in the country for some time. Students who graduate from those institutions and enrol in grade 11 institutions often encounter computer *technology for the first time at the grade 11 level. It has been argued that students in grade 7-10 high schools would benefit from computer equipment established in those schools.* Volunteers from Japan have been very effective in assisting with the establishment of school computer systems for student use. The volunteer in Mt Hagen continues to perform an extremely effective role by all reports on behalf of the people of Japan.

The success of such a project would be enhanced with a high level of involvement of appropriately qualified and experienced volunteers from Japan.

- Associated with the provision of computer technology would be a pilot scheme to introduce the Internet to selected secondary schools as a teaching tool.
- The expansion of secondary schools and subsequent increase in numbers of students enrolling in grade 11 and 12 courses has raised the issue of the development of alternative curricula at grades 11 and 12. Higher education opportunities are limited for grade 12 graduates along with formal employment opportunities in traditional sectors such as the public service. There is a growing interest in the provision of alternative/vocational type courses to act as a choice for students in terms of what they might study at a secondary school. Hoskins Secondary School has established successful rural and urban technology courses quite different from established academic core courses endorsed by the National department of Education.

A greater emphasis is needed to develop this area and support for curriculum workshops would be of valuable assistance to the success of the education reforms and expanding student choice in relation to their life opportunities.

Vocational Education

In 1994, for instance, some 14,487 females and 19,038 males left school during either their grade six or grade eight year. These former students had few alternatives at this stage of their lives. A small proportion may have the opportunity to enrol in a vocational training centre whereas the majority return to their home environments with little chance of participating in the formal or informal employment sector because of their poor levels of education and training. The numbers enrolling in the 110 vocational centres are small. In 1995, there were some 2,879 females and 7,880 males enrolled in all vocational centres in Papua New Guinea.

The PNG-GTZ vocational training project commenced in 1993. There are five vocational training centres located at Kamaliki, Bulolo, Manus, Raval and Kiunga involved in the GTZ vocational centre pilot. A further nine centres are earmarked to be included in the GTZ program in 1999.

The GTZ pilot project displays many initiatives not found in conventional vocational centres throughout the rest of the country. Short courses, new curricula, teacher professional development, and certification and trade-based testing opportunities, staff attachments, competency-based training and gender awareness.

- There is a significant need to re-develop the infrastructure and facilities in vocational centres which are not being facilitated by the GTZ initiative.

This would be a very large scale and expensive activity because of the high costs of equipment often needed for vocational training and the poor state of many of the workshops, classroom space and teacher office space. Nonetheless, it is a vital component of the reform and yet it is continuously given low priority in the overall scheme of education.

- Some volunteers from Japan have worked before, and continue to work in vocational centres and it is felt by vocational centre staff that more volunteers in vocational centres would boost the technical and professional skills of teachers.

Agriculture training and education have been a feature of vocational education for a long time but it requires additional inputs in terms of curriculum development, innovation in agriculture practice, effective instructional practices and equipment and infrastructure expenditure to cope with the important role within vocational centres that it rightfully deserves.

- The Government of Japan is ideally suited through its own agriculture training education system and the use of volunteers and experts to assist in the re-formulation and re-development of agriculture courses at the vocational centre level of education.

It is noted that Japan has assisted in the development of agriculture, forestry and fisheries in Papua New Guinea with other government departments and has developed considerable experience and insights into the need to develop this area of the economy.

A large number of vocational teachers do not possess a teaching qualification and this has been a long term criticism of the effectiveness of teaching at the vocational level. A number of attempts have been made to improve opportunities for teachers to upgrade their skills in the past such as a course at the Port Moresby Inservice College; establishment of a course at Goroka University; and assistance from the Commonwealth of Learning to use a package of courses developed for vocational teachers in the Caribbean. The country remains without an effective vocational teacher training program.

- The Government of Japan is in a position to facilitate the development and expansion of vocational teacher training opportunities within the country.

Literacy Education

The fact that just 52% of the population in Papua New Guinea are not functionally literate should be an intolerable state for educators and administrators. In the past ten years, there have been considerable efforts put into improving literacy and awareness levels within Papua New Guinea. Tokples priskul programs have expanded rapidly, and elementary education programs are currently being introduced in an attempt to reach the entire school age population and provide early childhood education experiences.

Non-Government organisations are taking the leading role in initiating adult literacy and awareness programs in rural and urban environments and government run institutions are also providing some literacy and awareness programs aimed at unemployed youth, women and disabled students. There are programs, which teach reading and writing, and others are concerned with the content of literacy programs. Literacy programs are offered in vernacular language, Tok Pisin, Police Motu and English. It is noted that the Government of Japan has supported literacy programs in Japanese in Papua New Guinea as well.

It is difficult to get comprehensive information on these programs for planning and funding purposes. It is equally difficult to discern which programs are effective in terms of outcomes and resource utilisation, and what programs represent best practice which may be emulated in order to maximise literacy and awareness efforts throughout the country.

The Papua New Guinea Government has shifted its focus from literacy for reading and writing to a more inclusive approach involving awareness building. This focus implies a conscious understanding of the realities of one's life and combined with the notion of literacy it implies a capacity for individuals and groups of people to express and to shape the lifestyles which they prefer to follow.

The World Bank is to fund a comprehensive study to investigate the extent and nature of literacy work in Papua New Guinea together with intensive studies of a range of literacy programs which the initial research seeks as best practice. The research data will enable a systematic approach to literacy work throughout the country. The Department of Education will be seeking funds at a later time to support its initiative to increase literacy rates in the country to some 90% of the population over the next twenty years. The World Bank may be interested in follow-up activities after the above study is completed and outcomes are known. This could very well be a useful collaborative activity between the World Bank and the Government of Japan.

- A long term interest in funding initiatives to raise the overall literacy level in Papua New Guinea would be a large scale project consistent with the Government of Japan's concerns to improve basic human needs in developing countries.

Such an interest would involve infrastructure development, technical aid, and the provision of equipment. A very large commitment of funds is likely to be required to assist in this area of development.

4.3 Higher Education

Office of Higher Education

The Office of Higher Education (OHE) is responsible for co-ordinating higher education planning and developments in Papua New Guinea.

- A significant task of the OHE is the selection of students for national scholarships to study at any one of the 38 approved higher education institutions in the country (see Appendix Two for a list of these institutions). These selections are done at the end of each year but are very dependent on

successful and efficient information flow in relation to student academic achievement to assist with decisions to award scholarships in the first instance or to continue to support successful students for further studies.

OHE would benefit significantly from an effective management information system to link itself with all of the approved colleges and the national high schools. Attempts have been made in the past (Podger 1994) but the operations of OHE are severely hampered by the absence of an effective means of communication with its major beneficiaries.

The Government of Japan may be in a position to provide effective design work for a management information system together with appropriate equipment and technical assistance to establish the system and to carry out training within OHE and institutions of higher education.

Primary Teachers' Colleges

There are eight primary teachers' colleges operating at present, namely, Madang, Balob, Kabaleo (which now incorporates the former St Paul's College, Vunakanau), Dauli, Holy Trinity, St Benedict's, Gaulim and Sonoma.

The colleges have recently moved from a two-year certificate program to a three-year diploma qualification. There is at present a concerted effort to develop new national curriculum guidelines by the colleges in order to produce graduates from all colleges who possess a common set of knowledge and skills as they enter the teaching force.

Staff of the colleges raises a number of developmental issues for consideration:

- staff development and in particular higher qualifications for lecturers which are subject oriented;
- the development of sound basic research techniques of lecturers;
- infrastructure development such as dormitories and classrooms;
- upgrading of learning resource centres;
- upgrading of communications equipment such as computer networking, fax, telephone and television;
- technical training in Japan for higher education staff in all colleges;
- the upgrading of facilities for the teaching of agriculture;
- course development which acknowledges the reality of the education reform initiatives and the increasing number of grade 12 graduates enrolling in first year teacher education courses and the realisation that new teachers will be expected to teach grades 7 and 8 in the future; and
- the development of facilities to train teachers to teach agriculture.

It may be useful to wait sometime until the large scale AusAID project designed to upgrade primary teaching and primary teachers' colleges is underway in 1999 to fully understand where there may be gaps in that project which may need to be filled by other development assistance organisations.

For instance, library facilities in all primary teachers' colleges require upgrading in terms of books, equipment and adequate building space. AusAID's (1997) primary teacher education project will provide Madang and Kabaleo Colleges with \$25,000 each year for a five year period to purchase reference books and teaching resources. Holy Trinity, St Benedict's and Balob will receive \$19,000 each year for the same period. The project also includes the extension or modification of college library facilities where needed to accommodate the additional resource materials. Dauli and Gaulim Colleges are not included in this upgrading initiative.

Port Moresby Inservice College

The College has traditionally offered inservice courses to primary school teachers to enhance their classroom capabilities and to school headmasters to develop sound administrative and leadership skills. These are upgrading courses and lead to the awarding of formal qualifications. Staff members at the College are also engaged in teacher

maintenance programs which do not lead to formal qualifications but are refresher courses to introduce new curriculum materials and approaches. These courses are often run in conjunction with national inservice weeks.

Staff at the College are concerned that the decrease in funding for school based professional development that new materials and curricula are not introduced to teachers and they do not possess an adequate understanding of the new approaches to teaching and curricula materials. Staff members of the College are themselves, restricted from travelling to provide maintenance courses in provincial areas. The Staff Development Unit of the Department of Education no longer allocates any funds for maintenance courses but channels all of its funds into formal upgrading courses.

The College has the additional and new task of training some 15,000 elementary teachers by the year 2004 required under the reform program. These teachers do a short on-campus program and undertake studies whilst they are teaching through the use of district trainers who are also given some full time training at the Inservice College. All in all, the training for teachers and trainers at the College is insufficient and in order to achieve quality at the elementary and primary school levels a much greater commitment to district and school based inservice work is required.

- The establishment of field service activities by the College to support the training of elementary teachers and their trainers, and to provide maintenance courses for teachers who have completed their initial qualifications and require updating of knowledge and skills.

It is anticipated that five staff would be needed to cope with the provision of sufficient inservice courses to clusters of teachers at the district level throughout the country on a yearly basis. These staff members would be solely responsible for field based inservice work and would be required to travel and run courses for the major part of the year.

In addition to funding five positions, financial assistance would also be needed to meet the costs of the provision of inservice courses.

Goroka University

Goroka University is by far the major producer of secondary teachers in Papua New Guinea. The Pacific Adventist College produces a small number of graduates each year.

The University requires assistance to upgrade infrastructure and the professional development of its own lecturers but it is prudent again to await the commencement of the AusAID secondary teacher upgrading program likely to start in 1999 before serious consideration is given by the Government of Japan to assisting developmental opportunities at Goroka.

University of Papua New Guinea

Government funding of university education has been severely cut during the past decade. The University of Papua New Guinea reports two areas of concern which require urgent attention and they would consider assistance from overseas aid organisations.

- The Sir Michael Somare Library at the University, once the major library in the South Pacific, has been run down during the past decade. There has been little expenditure on the purchase of new books and the quality of the book holdings has deteriorated which affects research activities at the University and the quality of its undergraduate programs. In addition, there has been little investment in electronic media such as CD-ROM technology and the capabilities of the Internet to access bibliographies, information and knowledge from other University libraries around the world.

The Library requires considerable funds to re-establish its position in the South Pacific as a leading library and to better serve tertiary students and to enhance the quality of higher education teaching and learning.

The University has few facilities for student recreational use other than two ovals, two tennis courts and basketball courts. There is no facility for indoor sports or training facility such as a gymnasium.

- The University is keen to develop a multi-purpose, indoor sports centre to cater for sports such as basketball, netball, weights and aerobics facility, and Marshall Arts training. The centre should also double for student social activities such as dances rather than students being forced to use lecture theatres and the mess.

University of Technology

In recognition of the severe budget cuts to university education, JICA has provided assistance to the University of Technology to rehabilitate research and teaching facilities at the University to a value of some K10 million. Further work is required in terms of rehabilitation and the University has found the placement of experts particularly useful and would like to continue that form of assistance after the completion of the major project in May 1998.

The University has not formalised future plans in relation to assistance from JICA but intends to do so during 1998.

4.4 Distance Education

Distance education has been perceived as an effective solution to the training of large numbers of teachers at the elementary level and the upgrading of knowledge and skills amongst primary school teachers who now have to teach at grades seven and eight as a result of the introduction of the reforms.

Distance education is also seen as a means for students denied access to schooling can return to a non-school environment later in life to resume primary, secondary and tertiary education. There are two major institutions providing distance education services in Papua New Guinea The College of Distance Education (CODE) offers courses at grades seven to ten at present and the Institute of Distance and Continuing Education (IDCE) at the University of Papua New Guinea offers grade 11 and 12 studies and diploma and degree programs.

For instance, distance education and its ready use of technology may be the means to assist the generation of young men and women in Bougainville who have been denied formal education opportunities for the past ten years as a result of the civil unrest on that island. The North Solomons province has a CODE centre and an IDCE University centre on Buka and both are well placed to assist in this endeavour.

- The University of Papua New Guinea has a submission before the Government of Japan for an equipment grant of which some K301,150 has been requested on behalf of the IDCE for computers, risograph, video cameras, an editing facility for video and audio tape production. This equipment will assist the University to link its provincial centres around the country with the Port Moresby campus and provide an administration facility but more importantly direct instruction through Internet links and improved communications between lecturers based in Port Moresby and students in isolated areas.

The present submission from the University does not include a technical training component and staff at IDCE will need assistance with the production of audio-visual materials and the maintenance of equipment. Volunteers and experts are seen as an important and vital component in the overall success of the introduction of technology within the operations of the IDCE.

- There are fourteen University centres around the country and the agreement to establish a centre in a province requires provincial governments to provide a teaching facility and office space and accommodation for the Director of the centre. Several provinces fulfil those commitments properly and the North Solomons and West New Britain, for instance, have constructed new facilities for their centres. The Southern Highlands and Enga provinces did likewise although recently those

facilities have been taken over by other government departments short of space at the expense of university education. Some other provinces such as Simbu have not provided any facilities at all.

If the University is to offer, and ultimately expand its network of University courses and centres and introduce levels of technology mentioned above, then there is a need to develop infrastructure for those centres. Simbu, Enga, SHP, EHP, and ESP are all in need of adequate facilities immediately to carry out their tasks effectively.

The College of Distance Education and the Institute of Distance Education have agreed that grade 11 and 12 courses should be taught through CODE and that the courses and materials be re-developed to follow more closely the approved syllabus materials of the National Department of Education.

- The World Bank considered a submission for K1.4 million to fund the development of those new courses. The World Bank was only able to approve an amount of K325,000 in which writing tasks will be contracted out and the work should be finalised by the end of 1998.

The development of the courses will not be completed by that time and CODE is seeking additional support to complete the tasks in 1999-2000. The Government of Japan may be in a position to assist with this project.

In 1990, participants at the World Conference for Education for All noted that traditional approaches to education will have difficulty meeting the needs for basic education for all and suggested that consideration be given to 'non-conventional delivery systems such as radio' to create learning environments inside and outside the classroom (UNESCO 1990:3).

The Manus Provincial government established the School of the Air (SOTA) in 1992 to ensure that all grade six leavers in that province could go on to grade seven studies. The school uses radio as its means of instruction.

The School of the Air follows the grade 7 to 10 syllabus developed by the College of Distance Education and purchases the learning materials from that institution. Students enrol with the School of the Air and they receive their materials through study centres that are established on remote islands where they live. Five subjects are offered through the school at each grade. They are English, mathematics, science, social science and commerce.

The teacher's duties involve writing scripts, recording broadcasts, and the normal duties of senior teachers such as programming, assessment, and ordering materials and equipment.

The radio lessons are broadcast using the Manus National Broadcasting Commission transmitter. The transmitter is used at other times for conventional use such as news, drama, live events and music. It is, by nature, a one-way communication mode. The original conception of SOTA was that radio would be used a two way medium.

The staff of the school had no experience in distance education or in the use of radio as an instructional medium. The teachers prepare radio scripts based on the College of Distance Education materials but what often happens is that the College's lessons are simply read by the teacher during recording sessions at the National Broadcasting Commission studio in Lorengau and later broadcast over the air. The activities for students are invariably the same as those that are contained in the College materials.

Few instances could be given by the School of the Air teachers of using the broadcast medium in any way other than a passive repetition of the College materials which students have in front of them.

SOTA remains a significant innovation, not only for Papua New Guinea, but also for other South Pacific countries even though it is operating in a less than adequate way at present. All of these island states are characterised by many small and remote islands, with small populations and limited financial resources

to establish costly primary and secondary schools. The concept of a school of the air offers solutions for other countries in the region as well.

- SOTA requires technical and financial assistance in a number of areas:

Radio equipment to allow two way communication between students in isolated study centres and teaching staff at the main campus of the school in Lorengau;

A radio transmitter to give it independence from having to use NBC's transmitter which has its own set of work commitments for the province; and

Professional development programs for staff in scripting and the effective use of radio as a medium for teaching.

4.5 Others

Curriculum Development Division

The Curriculum development Division has the task of distributing materials to provinces and schools as well as developing curricula for all of the sectors of school education.

The distribution of materials has been a constant problem for the Division. Stories abound of materials remaining in provincial warehouses and not forwarded to schools which are in desperate need for them. At other times just one book is sent when in fact a class set is needed.

Provinces employ materials Officers but these jobs have low status and therefore attract people with little interest in their jobs. Yet the positions are important and require staff who are aware of details and are well organised and efficient in their daily activities.

An additional problem for provinces is that storage conditions in some centres is poor and books are often water damaged, infested with termites or dirty and torn by the time they reach schools.

An additional problem for the Division is the expense involved in shifting heavy consignments of books to very isolated areas, which have poorly established transport links.

The World Bank has, in fact, been paying for the costs of distribution of materials although that particular assistance is due to cease at the end of 1998.

CDD requires the following forms of assistance:

- Financial support to pay for the distribution of materials from 1999 onwards.
- Appropriate training for provincial Materials Officers in relation to receiving large consignments of books, storage procedures, stocktakes, and the despatch of irregular numbers of books to a large number of schools within a province.
- Require a standard type of design for the storage of teaching materials at provincial centres with a concrete floor, permanent roofing, shelving, adequate ventilation, and necessary security measures to safely store materials. Several of the bigger provinces have a serious need for this facility as they handle tens of thousands of teaching materials each year.
- There is also a need for a small photocopier, telephone installation, a vehicle and housing for each Materials Officer.

Special Education

Special Education provides assistance for intellectually, physically and emotionally deprived children and is an important area of concern for the education reform program. The Government of Japan has already assisted the St. John Association for the Blind to provide massage training for blind people and it has also provided technical aids for the blind as well.

- Equipment in the form of computers is needed for the Special Education Resource Centres which are being established to develop databases of information on special education students and to monitor their progress throughout their school careers and the kinds of help best suited to their needs. The computers will also be available to locate Special Education resources on the Internet.
- Technical assistance is needed in terms of training as well to establish a meaningful and useful database. This could be in the form of an appropriate volunteer(s) with a background in Special Education.

Appropriate Technology

There is a strong sense of awareness amongst the participants in this study that the use of technology has limitations in a developing context because of a lack of infrastructure to support sophisticated technology; a lack of local expertise to operate technology; and a lack of technical capacity to maintain and repair high powered technology. There has been a consistent demand for technology that is appropriate.

The use of VHF and UHF radios is a sensible response to constraints affecting education and is a relatively inexpensive form of technology. Solar lighting and wokabout sawmills have been mentioned several times in this paper and they are also appropriate forms of technology use in Papua New Guinea.

Other ideas such as mini-hydro electric projects in those areas of the country with high and reliable rainfall. A number of high schools in the Highlands region of the country have established effective mini-hydro electricity generation schemes. It is understood that there are new developments in converting salt water to fresh water which may offer opportunities for drier coastal areas of the country to have a regular water supply. This would enable schools to remain open for the full teaching day, rather than closing on a regular basis, because of a lack of adequate water to maintain the sewerage and drinking requirements of the school population.

An investigation of the potential of recent developments in appropriate technology and adapting successful ideas from village life and agricultural practices from Japan may be useful strategies to assist with development requirements in Papua New Guinea.

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Appendix One

Terms of Reference

1. Problems in the Education System in Papua New Guinea

The study will identify the problems, constraints and needs as well as the current primary data in the education sector.

2. Long and Mid-term Development Strategies in the Education Sector

The study will describe all measures taken by the national and provincial governments to improve the education system in Papua New Guinea.

3. Donor Assisted Projects

The study will describe previous and on-going projects assisted by donor and non-government organisations.

4. Possible Projects to be assisted by the Government of Japan

The study will suggest possible projects which could be assisted by the Government of Japan under the Economic and Technical Co-operation Program in:

- elementary education
- primary education
- secondary education
- higher education
- vocational centres
- literacy programs
- distance education
- others

5. List of Available Information

6. Directory of Resource Personnel and Organisations

Appendix Two

A list of 38 approved higher education institutions in Papua New Guinea.

University of Papua New Guinea
Goroka University
University of Technology
Vudal University
Bulolo University College
Timber Industry Training College
Balob Teachers' College
Dauli Teachers' College
Madang Teachers' College
Holy Trinity Teachers' College
St. Benedicts Teachers' College
OLSH Teachers' College (Kabaleo)
St. Paul's Teachers' College
Gaulim Teachers' College
Port Moresby Inservice Teachers' College
Goroka Technical College
Lae Technical College
Madang Technical College
Mt. Hagen Technical College
Port Moresby Technical College
POM Business College
Balimo Nursing School
Highlands Nursing School
Lae Nursing School
Lutheran Nursing School
Mendi Nursing School
Nazarene Nursing School
SOPAS Nursing School
St. Barnabas Nursing School
St. Mary's Nursing School
College of Allied Health Sciences
Fisheries College
Pacific Adventist University
Divine Word University
Legal Training Institute
Maritime College
Popondetta Agriculture College
Sonoma Adventist College

Appendix Three

Interviews were held with the following people in the course of this study:

Japan International Cooperation Agency

Masahiro Kobayashi
Tony Ombo

National Planning and Implementation Office

Thomas Lisenia
Masyoshi Ono

University of Papua New Guinea

Dr Rodney Hills
Ignatius Senau
Hilary Pumuye
Dr Bruce Yeates

Institute of Distance and Continuing Education

Samuel Haihuie
Paraka Pena

Manus Division of Education

Tim Poesi

Western Highlands Provincial Administration

Tom Webster

University of Technology

Dr P. Siaguru
Gunn Gunemba

National Research Institute

Dr Beno Boeha
Pani Tawaiyole
Daro Avei
John Khambu

Office of Higher Education

Dr Mosley Moromoro
Jerry Kuhena
Dr Jim Macpherson
David Austin
Amos Maso

Appendix 4

Primary School Enrolment by Province, Grade and Sex (1997)

	Grade one		Grade two		Grade three		Grade four		Grade five		Grade six		Grade seven		Grade eight	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Western*																
Gulf	1302	1160	1437	1191	957	825	855	701	936	768	696	576	169	153	24	22
NCI	1596	1358	2386	2086	2218	1985	2145	1958	2138	1822	1844	1708	1136	1054	664	590
Central	2520	2218	2464	2245	2186	1899	1886	1603	1992	1751	1392	1073	369	326	231	177
Milne Bay	2181	2060	2040	2302	2001	1879	1591	1673	1621	1575	1482	1425	522	533	412	409
Oro	952	728	879	694	763	678	583	502	506	416	435	376	207	183	91	63
S H'lands*																
E H'lands	7426	6135	5561	4387	4716	3653	3522	2602	2944	2132	2691	1748	298	219	212	137
Simbu	3890	3285	3280	2379	2777	1902	2302	1550	1911	1265	1642	1142	597	429	358	219
W H'lands	5492	4714	4690	3847	3504	2754	2995	2418	2763	1999	2141	1714	471	400	241	195
Enga	3981	2812	3501	2555	2757	1839	2167	1427	1723	1221	1211	773	290	230	91	67
Morobe	6280	5290	5918	4804	5345	4481	4732	3916	4407	3360	3237	2539	830	619	508	413
Madang	4219	3418	3608	2801	3356	2544	2825	2355	2557	2011	1994	1609	1066	833	891	681
Sandaun*																
East Sepik	5169	4452	3691	3212	3294	2873	2676	2380	2514	2149	2150	1995	368	276	251	179
Manus	634	572	504	442	531	485	416	387	414	364	457	480	90	54	0	0
New Ireland	1518	1409	1195	1099	1085	945	1063	1017	1126	1122	654	594	426	432	282	255
ENB	3105	2794	2769	2484	2796	2339	2315	2094	2150	1888	1909	1775	20	48	0	0
WNB	3131	2303	2298	1793	1911	1627	1766	1493	1540	1246	1326	1040	1033	809	662	491
North Sols	2071	790	2013	747	1774	665	1645	695	1426	603	1257	421	336	79	49	28
KLM	811	646	911	724	716	560	687	559	618	503	580	453	128	120	58	30
Total	56278	46145	49145	39793	42687	33933	36171	29331	33286	26196	27098	21441	8356	6979	5025	3956

* Figures not submitted as yet.

Appendix 5

High School Enrolment by Province, Grade and Sex (1997)

	Grade seven		Grade eight		Grade nine		Grade ten		Grade eleven		Grade twelve		Total		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Total
Western*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gulf	145	113	148	162	131	127	139	114	0	0	0	0	563	516	1079
NCD	285	256	445	448	786	679	616	673	52	64	53	63	2217	2183	4400
Central	652	459	529	359	577	420	485	377	0	0	0	0	2243	1615	3858
Milne Bay	333	294	288	243	382	366	359	336	61	58	76	45	1501	1342	2843
Oro	248	172	180	174	344	267	254	173	0	0	0	0	1026	786	1812
S H'lands*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E H'lands*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Simbu	454	257	406	197	528	243	393	174	0	0	0	0	1781	871	2652
W H'lands	785	421	657	471	874	460	674	288	87	43	81	40	4758	1723	6481
Enga	840	442	672	388	728	350	472	271	0	0	0	0	2712	1451	4163
Morobe	889	536	850	567	893	551	818	522	134	77	107	55	3691	2306	5997
Madang	377	195	329	209	570	445	536	381	74	48	81	44	1987	1322	3309
Sandaun*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
East Sepik	645	440	535	345	520	432	429	398	0	0	0	0	2129	1615	3744
Manus*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Ireland	229	160	258	104	311	217	258	202	32	21	37	23	1125	727	1952
ENB	658	585	635	621	646	554	567	530	0	0	0	0	2506	2290	4796
WNB	52	18	151	103	506	312	500	299	91	36	68	36	1368	804	2172
North Sols	413	277	308	297	309	347	265	224	0	0	0	0	1295	1145	2440
KLM	190	118	154	106	148	104	109	75	0	0	0	0	601	403	1004
Total													31503	21199	52702

* Figures not available as yet

PAPUA NEW GUINEA
DEPARTMENT OF EDUCATION
WAIGANI

**ELEMENTARY, COMMUNITY AND PRIMARY
REFORM SCHOOL - AGE POPULATION
PROJECTIONS:**

By Province, Year, Gender and Single Age.

1990 - 2014

CORPORATE DATA BRANCH
March 1997

PAPUA NEW GUINEA
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**ELEMENTARY, COMMUNITY AND PRIMARY
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CORPORATE DATA BRANCH
March 1997

Preface

The following population projections are based on the individual growth rates determined by Dr. Martin L. Bakker of the UNFPA/ILO Project based within the Population Planning Unit with the National Planning Office. In his findings published in the document titled "The Provincial Populations Of Papua New Guinea : Profiles Based on 1990 Census Data", Bakker indicated among other things individual provincial growth rates for male and females. The population growth rates used for the projections were derived using the exponential curve formula, taking all other considerations into mind, such as the in and the outmigration, mortality rates etc....

While all the provincial projections were based on the growth rates given by Bakker, there were only two exceptions. These are the Kiunga lake Murray District and the North Solomons Province. For some reasons the Education Department regarded the Western Province and the Kiunga Lake Murray as different and so expects separate data analysis from these two. No growth rates were derived for the Kiunga Lake Murray District by Bakker, therefore the projections noted are based on the growth rates computed for the Western Province which included the Kiunga Lake Murray District.

For the North Solomons Province however, no 1990 National Census figures were available. The offices of the Population Planning Unit and the National Population Census were not in a position to disclose any base-line figures. For some sort of indicative figure, the 1980 Census figures were used but from 1990 and inclusive the projections were based on the 1980 projected data but re-projected at a 2.3% 1990 aggregate growth rate. How accurate this will be leaves a lot to be desired until somebody can arrive at an expert guess or a census is actually carried for the North Solomons Province.

For convenience sake, I have extracted the individual provincial growth rates and have listed them below. Dr. Bakker or the Population Planning Unit still maintains that the national annual growth rates is still 2.3% and it is not for us to comment on how this could be derived. However the individual growth rates for males and females are :-

Province	Male	Female
1. Western	2.9	2.8
2. Gulf	0.8	0.6
3. Central	1.9	1.9
4. National Capital	4.9	5.8
5. Milne Bay	2.1	2.2
6. Oro	2.1	2.4
7. Southern Highlands	3.5	2.5
8. Enga	3.8	3.3
9. Western Highlands	2.6	2.3
10. Simbu	0.1	0.6
11. Eastern Highlands	1.1	0.6
12. Morobe	2.3	2.0
13. Madang	2.2	1.5
14. East Sepik	1.3	1.5
15. Sandaun	2.3	2.0
16. Manus	2.5	2.3
17. New Ireland	2.6	3.1
18. East New Britain	3.3	3.7
19. West New Britain	3.9	3.9

Please refer further queries to the Director - Corporate Data Branch or directly to Dr. Martin Bakker on telephone number : 3288305 or you may write to him on this address : Population Planning Unit, National Planning Office, Vulupindi Haus, Waigani.

KOIKE, Mike-AL V.
 a/ Director - Corporate Data (MIS & Statistics) Branch

PROJECTED SCHOOL AGE POPULATION: BY AGE, GENDER AND PROVINCE

AGE GROUPS 6 - 14

PROVINCE	Age 6		Age 7		Age 8		Age 9		Age 10		Age 11		Age 12		Age 13		Age 14		TOTAL											
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	T									
Western	889	845	1734	929	857	1786	823	766	1589	769	755	1494	878	846	1724	727	651	1378	802	621	1423	703	682	1385	733	657	1390	7253	6650	13903
Gulf	1191	1116	2307	1095	950	2045	1074	915	1989	998	865	1863	1124	886	3010	856	727	1583	975	856	1831	872	746	1618	936	724	1660	9121	7785	16906
National Capital	2748	2545	5293	2496	2380	4876	2492	2197	4689	2371	2103	4474	2579	2186	4765	2005	1800	3805	2182	1916	4088	2093	1872	3965	2141	1819	3860	21097	18808	39815
Central	2224	2088	4312	2322	2055	4377	2226	1890	4116	2203	1980	4103	2331	1950	4281	1866	1584	3450	2018	1692	3710	1759	1523	3282	1840	1691	3441	18789	16283	35072
Milne Bay	2379	2220	4599	2391	2240	4631	2379	2116	4495	2189	2011	4200	2341	2087	4428	2029	1719	3748	2215	1854	4069	1959	1716	3675	1856	1680	3536	19758	17643	37381
Oro	1689	1470	3159	1578	1334	2912	1504	1349	2853	1418	1276	2694	1579	1307	2886	1214	1099	2313	1425	1205	2630	1330	1052	2382	1234	1086	2320	12971	11178	24149
Southern Highlands	6111	5438	11549	5380	4665	10045	5672	4755	10427	5263	4744	9837	6078	4984	11062	3222	2741	5963	5975	4801	10776	3439	3030	6469	4193	3482	7675	45333	38470	83803
Eastern Highlands	5552	4477	10029	5171	4048	9219	5148	4026	9174	4775	3596	8311	4746	3610	8356	3051	2319	5370	4219	3228	7447	3376	2578	5954	3561	2632	6183	39599	30444	70043
Simbu	2730	2501	5239	2463	2160	4623	2559	2289	4848	2689	2212	4931	2718	2279	4997	1868	1468	3336	2474	1986	4460	1895	1498	3393	1886	1516	3402	21282	17947	39229
Western Highlands	5743	4706	10449	5175	4091	9266	5282	4312	9594	4867	3722	8589	5654	4330	9984	3347	2500	5856	5233	3899	9132	3496	2757	6253	3980	3063	7043	42777	33389	76166
Enga	3886	3481	7367	3142	2779	5968	3472	2817	6289	3472	2817	6289	4163	3344	7507	2121	1670	3791	4093	3373	7466	2387	1967	4354	2894	2481	5375	28937	23051	53988
Madang	4546	3786	8332	4435	3692	8127	4283	3405	7688	4065	3222	7287	4190	3311	7501	3410	2627	6037	3887	3044	6931	3270	2688	5958	3374	2629	6003	55460	28404	63864
Sanduan	2404	1985	4392	2214	1853	4087	2167	1703	3870	2112	1576	3688	2178	1679	3857	1856	1490	3346	2158	1547	3705	1767	1368	3135	1781	1591	3282	18657	14705	33362
East Sepik	4025	3729	7754	3872	3597	7469	3595	3246	6841	3485	3134	6639	3737	3245	6982	3311	3000	6311	3575	3210	6785	3121	2912	6033	3202	2910	6112	31923	29003	60926
Manus	482	426	908	492	458	950	468	414	882	439	401	840	423	412	835	395	374	769	414	394	808	393	411	804	440	410	850	3946	3700	7646
New Ireland	1357	1266	2623	1286	1266	2552	1211	1115	2326	1204	1051	2255	1281	1065	2346	1014	888	1902	1187	987	2174	1048	944	1992	1035	956	1991	10623	9538	20161
East New Britain	2920	2683	5603	2763	2558	5321	2616	2457	5073	2571	2298	4779	2639	2358	4997	2208	1978	4186	2553	2206	4759	2135	2017	4152	2338	1955	4293	22743	20420	43163
West New Britain	2238	1986	4228	2059	1848	3907	1955	1818	3773	1847	1629	3476	1953	1671	3624	1616	1328	2944	1802	1545	3347	1549	1396	2945	1676	1325	3081	16695	14550	31245
North Solomons	2760	2646	5400	2670	2540	5210	2570	2430	5000	2480	2320	4800	2380	2200	4580	2270	2070	4340	2180	1970	4150	2110	1910	4020	2050	1870	3920	21470	19950	41420
K.L.Murray	764	735	1499	719	647	1366	664	636	1300	620	525	1145	654	553	1207	546	476	1022	611	508	1119	603	457	1060	596	488	1084	5777	5025	10802
PNG Total	62635	55551	118186	58279	51015	109294	56801	49845	106646	55090	46404	101494	58948	49183	108171	43700	36380	80080	55169	45325	100494	43930	37491	81421	46442	38805	85247	481034	409999	891033

PROJECTED SCHOOL AGE POPULATION: BY AGE, GENDER AND PROVINCE

AGE GROUPS 6 - 14

PROVINCE	Age 6		Age 7		Age 8		Age 9		Age 10		Age 11		Age 12		Age 13		Age 14		TOTAL											
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F												
Western	915	869	1783	1634	791	747	1537	903	870	1773	748	669	1417	825	638	1464	723	754	1424	701	750	1629	943	728	1672	1470	7463	7398	14861	
Gulf	1201	1123	2323	2013	1036	970	1876	1133	891	1544	863	731	1594	983	861	1844	879	943	1629	750	879	1544	943	728	1672	1470	7463	7398	14861	
National Capital	2883	2697	5575	4939	2487	2422	4712	2705	2313	5018	2103	1904	4008	2289	2017	4305	2196	2141	4176	1981	1925	4066	2306	2160	4367	3610	3506	19146	16953	36101
Central	2266	2125	4394	4460	1926	1924	4181	2375	1987	4362	1901	1814	3516	2056	1724	3780	1792	1552	3344	1875	1631	3506	19146	16953	36101	3506	19146	16953	36101	
Milne Bay	3429	2269	4698	4730	2429	2355	4290	2390	2133	4523	2072	1757	3828	2262	1895	4156	2000	1895	3754	1751	1717	3612	20152	20181	40133	26497	26497	26497	26497	
Oro	1724	1305	3230	1611	1366	1297	2577	1536	1381	2917	1448	1307	2754	1612	1338	2951	1239	1125	2435	1077	1112	2372	13543	13254	26497	26497	26497	26497	26497	
Southern Highlands	6325	5574	11899	10350	5871	5205	9801	5228	4504	10117	4072	3801	7878	4265	3247	7513	3413	3559	6665	3106	3569	7099	46920	39375	86295	40035	29982	70016	38758	
Eastern Highlands	5892	4811	10707	9495	4831	4488	8324	4632	3964	8623	3816	3514	7252	3865	2965	6599	1986	1989	4886	2520	4886	5123	30842	32992	63834	30842	32992	63834	30842	
Simbu	4034	3596	7630	6880	3261	2919	6080	2885	2294	6179	3604	2900	6314	4321	3454	7776	2202	2032	4510	3034	2563	5567	30837	22997	53034	30837	22997	53034	30837	
Enca	6135	5321	11656	10370	5374	4631	9002	5485	4978	10463	4878	3939	8817	5310	4583	9895	4731	4946	8778	4946	4111	9017	48012	38079	86091	48012	38079	86091	48012	
Morthe	4646	3843	8489	7347	3456	3270	7425	4282	3361	7643	3485	2666	6151	2973	2093	7062	3342	2728	6070	3448	2668	6117	36240	22831	64071	36240	22831	64071	36240	
Maubang	2459	2028	4487	4175	2285	1998	4175	3642	3295	6936	3530	3201	6732	3786	3294	7079	3364	3045	6117	1995	3203	3244	3244	2954	6197	32338	28573	60911	15880	
Sandam	494	436	930	844	409	373	786	424	383	787	424	403	827	424	403	827	424	403	827	424	403	827	424	403	827	424	403	827	424	403
East Sepik	1392	1305	2698	2625	1242	1150	2392	1314	1098	2412	1040	916	1956	1218	1018	2235	1075	973	2049	1062	986	2048	10899	8684	19583	2048	10899	8684	19583	
New Ireland	3016	2782	5799	5507	2702	2548	5250	2726	2445	5171	2281	2051	4332	2637	2288	4925	2205	2092	4297	2415	2027	4442	23494	68473	91966	23494	68473	91966	23494	
West New Britain	2125	2065	4193	4093	1919	1693	3612	2029	1736	3765	1679	1380	3059	1872	1605	3478	1609	1450	3060	1741	1377	3118	17346	13229	30575	17346	13229	30575	17346	
North Solomons	2823	2701	5524	5330	2537	2373	4910	2435	2251	4685	2322	2118	4440	2230	2015	4245	2159	1954	4112	2097	1913	4010	21964	17923	39887	21964	17923	39887	21964	
K.L.Murray	786	756	1542	1337	638	540	1178	673	568	1241	562	489	1051	629	522	1151	630	470	1090	613	502	1115	5945	4512	10456	1115	5945	4512	10456	
PNG Total	64169	56822	120991	111875	58178	50985	109163	54252	47113	101715	43277	37219	81496	53777	46368	100145	43396	38359	81755	45490	39704	85194	479740	460236	939976	85194	479740	460236	939976	

PROJECTED 3/1/00 L AGE POPULATION: BY AGE, GENDER AND PROVINCE

AGE GROUPS 6 - 14

PROVINCE	Age 6		Age 7		Age 8		Age 9		Age 10		Age 11		Age 12		Age 13		Age 14		TOTAL											
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	T									
Western	941	893	1834	1889	1681	1681	1580	1580	894	894	1824	1458	1458	849	849	721	721	1465	776	694	1470	7680	7599	15279						
Gulf	1210	1129	2340	2074	2017	1014	1889	1889	1142	897	2039	1606	1606	991	866	866	866	1641	951	733	1684	9268	11827	21094						
National Capital	2024	2849	5873	2664	5201	2609	4963	2838	2447	5285	2306	2015	4221	2401	2134	4535	4399	2246	2036	2036	4282	23116	22644	45760						
Central	2309	2168	4477	4545	4274	2288	4260	2420	2025	4415	1938	1645	3582	2095	1757	3852	1581	3408	1911	1662	3573	19510	17248	36758						
Milne Bay	2480	2319	4799	2340	4872	2480	4382	2440	2180	4620	2115	1795	3911	2309	1936	4245	2042	3834	1935	1755	3690	20576	20629	41205						
Oro	1761	1541	3302	1399	2982	1478	2816	1646	1370	3017	1266	1152	2418	1485	1264	2490	1103	2490	1286	1139	2425	13522	13601	27122						
Southern Highlands	6546	5712	12260	5763	11072	5638	10443	6511	5236	11747	3451	2880	6331	6401	5044	11445	3183	6867	4492	3658	8150	48562	40335	88897						
Eastern Highlands	5675	4531	10206	5285	4087	9382	4599	4851	3653	8504	3118	2347	5465	4312	3267	7579	3451	2609	3640	2654	6293	40475	30192	70667						
Simbu	2735	2539	5275	2468	4881	2694	4963	2723	2386	5080	1872	1486	3357	2479	2010	4489	1899	1516	1890	1534	3424	21325	17584	38908						
Western Highlands	6046	4925	10970	5448	4281	9729	5560	6660	2795	4531	7327	2626	4546	2544	4080	6625	1949	2985	1940	3206	5145	30967	33725	64691						
Enga	4187	3715	7901	3385	6297	3741	6747	4485	3568	8054	2285	1782	4067	4410	3599	8099	2572	2099	3118	2647	5766	31178	23752	54930						
Morobe	6276	5632	11908	5868	5251	11119	7565	4376	3411	7787	3562	2706	6268	4060	3136	7196	3415	2769	6185	3524	2708	6233	37037	28303	65340					
Madang	4748	3900	8649	4632	3904	8436	4474	3508	3508	7981	4246	3508	7981	4246	3508	7981	4246	3508	7981	4246	3508	7981	4246	3508	7981					
Sandaun	2516	2068	4584	2338	1928	4266	2268	1772	4040	2210	1640	3850	2279	1747	4026	1942	1550	3493	2258	1609	3868	1849	1423	3272	1864	1562	3426	19525	15416	34941
East Sepik	4130	3842	7972	3973	3706	7679	3689	3344	3343	7178	3398	3091	6488	3669	3307	6976	3203	3000	6203	3286	2998	6284	32758	20221	61780					
Manus	506	446	952	479	996	492	881	444	431	876	415	391	806	435	412	847	413	430	843	462	429	891	4146	4093	8238					
New Ireland	1428	1346	2774	1354	2699	1275	1185	1348	1132	2481	1067	944	2011	1250	1049	2299	1103	1003	2107	1090	1016	2106	11183	8953	20136					
East New Britain	3116	2385	6081	2751	5699	2792	2642	5118	2816	5352	2356	2127	4483	2724	2372	5097	2278	2169	4447	2495	2102	4597	24269	78302	94571					
West New Britain	2416	2148	4564	2323	1995	4218	2110	1963	4073	1994	1745	1434	3178	1945	1668	3613	1672	1507	3179	1809	1430	3240	18023	13744	31767					
North Solomons	2888	2763	5651	2794	2658	5452	2690	2543	5233	2491	2302	4793	2376	2281	2062	4343	2208	1999	4207	2145	1957	4102	22469	18335	40804					
K.L. Murray	809	777	1586	761	1445	684	1445	656	584	1277	578	503	1081	647	537	1184	638	483	631	516	1147	6117	4635	10755						
PNG Total	65749	58129	125875	61150	53382	114531	59594	52158	111752	55451	48553	104004	58785	51477	110261	44240	38082	82322	54979	47441	102549	44363	39252	83615	46609	40630	87139	496830	470794	961613

PROJECTED SCHOOL AGE POPULATION: BY AGE, GENDER AND PROVINCE

AGE GROUPS 6 - 14

PROVINCE	Age 6		Age 7		Age 8		Age 10		Age 11		Age 12		Age 13		Age 14		TOTAL													
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T												
Western	969	913	1887	1012	931	1943	897	832	1729	838	788	1625	957	919	1876	1499	874	675	1548	766	741	1507	799	714	1512	7912	7807	15709		
Gulf	1230	1136	2366	1121	967	2089	1100	932	2032	1022	981	1903	1151	902	2053	1617	999	872	1870	893	760	1653	959	737	1696	9342	11990	21332		
National Capital	3172	3014	6186	2881	2819	5700	2877	2602	5478	2737	2491	5227	2977	2589	5566	4446	2519	2257	4716	2416	2217	4633	2356	2154	4510	24249	23747	47995		
Central	2353	2209	4562	2457	2174	4631	2355	2000	4355	2331	2110	4341	2466	2063	4530	3650	2135	1799	3926	1861	1611	3473	1947	1694	3641	19880	17546	37426		
Milne Bay	2532	2370	4902	2545	2391	4936	2532	2259	4791	2330	2147	4476	2492	2228	4719	2160	1835	3994	4337	2085	1832	3917	1975	1793	3769	21008	21087	42095		
Oro	1798	1573	3376	1680	1472	3152	1601	1448	3049	1599	1370	2879	1681	1403	3084	2472	1517	1294	2811	1416	1130	2545	1313	1166	2479	13805	13957	27762		
Southern Highlands	6775	5854	12629	5965	5024	10989	6289	5121	11409	5835	4926	10761	6759	5367	12106	3572	2952	5170	11795	3813	3263	7076	4649	3750	8399	50262	41319	91580		
Eastern Highlands	5737	4558	10295	5344	4121	9465	5320	4099	9419	4934	3400	8534	4904	3675	8580	5514	4360	3286	7646	3489	2625	6113	3680	2669	6349	40920	30404	71324		
Simbu	2728	2554	5282	2470	2199	4670	2567	2330	4897	2766	2283	4980	2726	2320	5046	1874	1495	2022	4503	1901	1525	3426	1892	1543	3435	21346	17713	39059		
Western Highlands	6203	5038	11241	5589	4380	9969	5705	4616	10321	4623	3883	8505	4656	3686	8342	2372	1841	3718	8296	2670	2168	4838	3237	2735	5971	32463	24532	56995		
Enga	4246	3837	8083	3514	3008	6522	3108	2515	5623	2883	2405	4988	2796	2036	4832	1342	1053	2181	4825	1892	1452	3343	1907	1593	3490	19974	15760	35735		
Morobe	6430	5744	12165	6083	5356	11359	5711	5112	10822	5624	4925	10449	5741	5179	10919	5105	4098	9293	10325	4952	4210	9161	5135	4277	9411	50246	39642	89889		
Maubung	4857	3959	8812	4734	3861	8595	4572	3561	8132	4339	3569	7108	4473	3462	7935	3640	2747	4183	7332	3491	2811	6301	3602	2749	6351	37852	28783	66635		
Sandaun	2574	2110	4683	2392	1966	4358	2320	1807	4127	2261	1972	3934	2332	1782	4114	1987	1581	3568	2310	1642	3952	1892	1452	3343	1907	1593	3490	19974	15760	
East Sepik	4184	3899	8083	4025	3261	7286	3737	3394	7131	3623	3098	6921	3885	3395	7278	3442	3137	6579	3716	3357	7073	3244	3045	6289	3329	3043	6371	33184	29477	62661
Manus	519	456	975	530	490	1020	504	443	947	473	429	902	456	441	897	425	400	826	446	422	868	423	440	863	474	439	913	4249	4190	8440
New Ireland	1466	1387	2853	1389	1308	2776	1308	1222	2530	1300	1152	2452	1384	1167	2551	1095	973	2088	1252	1082	2364	1132	1035	2166	1118	1048	2166	11473	9231	20704
East New Britain	3219	2992	6211	3046	2853	5898	2884	2740	5624	2834	2462	5296	2909	2630	5539	2434	2206	4640	2814	2460	5274	2353	2249	4603	2577	2180	4757	25070	21990	47060
West New Britain	2510	2232	4742	2349	2073	4382	2193	2039	4232	2072	1627	3899	2191	1874	4065	1813	1491	3302	2021	1733	3754	1737	1566	3303	1880	1486	3366	18725	14280	33006
North Solomons	2955	2826	5781	2858	2719	5578	2751	2602	5353	2655	2484	5129	2548	2355	4903	2430	2216	4646	2334	2109	4443	2259	2045	4304	2195	2002	4197	22986	18757	41743
K.L.Murray	832	798	1631	783	703	1486	723	691	1414	676	570	1246	713	601	1313	595	517	1112	666	552	1218	657	496	1153	649	530	1180	6294	4768	11062
PNG Total	67375	59473	126849	62648	54616	117264	61052	53365	114417	56739	49374	106413	60173	52673	112847	45567	38970	82238	56285	48544	104829	45088	40171	85569	47610	41582	89192	502548	481654	984202

PROJECTED SCHOOL AGE POPULATION: BY AGE, GENDER AND PROVINCE

AGE GROUPS 6 14

PROVINCE	Age 6		Age 7		Age 8		Age 9		Age 10		Age 11		Age 12		Age 13		Age 14		TOTAL										
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F									
	Western	997	944	1940	1042	957	1989	855	1778	862	1929	815	727	1542	899	1593	788	762	1550	822	734	1556	8132	8020	16151				
Gulf	1230	1143	2373	1130	973	2103	937	2046	1030	2068	884	745	1628	1007	1883	900	764	1664	966	742	1708	9416	13157	21573					
National Capital	3328	3189	6516	3022	2982	6094	2753	5770	2871	5862	3428	2255	4683	2642	2388	2534	2346	4880	2471	2279	4751	25437	24912	50349					
Central	2398	2251	4649	2404	2216	4719	2038	4438	2375	2019	4424	2012	1708	3720	1824	4080	1897	1642	3539	1984	1726	3710	20258	17849	38107				
Milne Bay	2885	2422	5007	2598	2444	5042	2585	4894	2379	2194	2205	1875	4080	2407	2023	2129	1872	4001	2017	1833	3850	21449	21556	43005					
Oro	1835	1616	3452	1715	1467	3182	1483	3118	1541	1733	3153	1319	1208	2528	1549	1325	2873	1445	1157	2602	1341	1194	2535	14925	28418				
Southern Highlands	7013	6002	13015	6174	5149	11323	6509	11757	6039	12476	3697	3026	6723	6856	5299	3546	3345	7291	4812	3843	8655	52021	42327	94348					
Eastern Highlands	5800	4583	10386	5402	4146	9548	4123	9502	4989	8656	3187	2375	5563	4408	3306	3527	2640	6167	3720	2685	6106	41370	30618	71989					
Simbu	2741	2570	5311	2473	2212	4685	2344	4914	2700	2334	5063	1875	1504	3379	2484	2034	1514	3437	1894	1553	3446	21367	17844	39212					
Western Highlands	6364	5154	11518	5735	4481	10215	5853	10376	2769	4076	7541	2748	4671	2548	4270	6818	1951	3020	4971	1942	3355	5297	31884	35240	67124				
Enga	4511	3964	8475	3648	3107	6755	3226	3631	4031	3238	8641	2462	1902	4364	4752	3841	2771	2240	5011	3360	2825	6185	33593	25337	58930				
Morobe	6568	5859	12427	6141	5463	11694	5842	11056	5753	11155	5222	4189	9402	5685	4863	10549	5065	4294	9359	5253	4362	9615	51402	40148	91850				
Maidang	4959	4018	8978	4838	3919	8757	4673	8286	4435	3430	7854	4571	3514	8085	3720	2788	6308	4241	3231	7471	3567	2853	6420	3681	2790	6471	38685	29273	67958
Sandaun	2633	2152	4785	2477	2406	4452	2373	4843	2313	1776	4019	2385	1613	3646	1675	4038	1935	1481	3416	1951	1625	3575	20434	16113	36546				
East Sepik	4238	3953	8196	4077	3818	7895	3786	7231	3670	3444	7379	3487	3184	6671	3765	3407	7172	3286	3091	6577	3372	3089	6460	35616	29939	63553			
Manus	532	467	999	543	502	1045	517	453	485	467	436	410	846	457	432	888	434	450	884	486	449	935	4356	4290	8645				
New Ireland	1504	1431	2934	1425	1430	2855	1342	2602	1334	1193	2623	1124	1003	2127	1315	1115	1161	1667	2228	1147	1080	2227	11772	9517	21289				
East New Britain	3325	3103	6428	3146	2979	2841	2841	5820	2928	2727	5732	2514	2287	4802	2907	2551	5458	2431	2332	4764	2662	2361	4923	23897	74138	100035			
West New Britain	2608	2312	4927	2399	2154	4553	2278	2119	2152	1997	4223	1883	1548	3431	2100	1800	3980	1805	1627	3432	1953	1544	3497	19456	14837	34293			
North Solomons	3023	2894	5914	2924	2782	5706	2815	2661	2716	2441	5257	2607	2409	5016	2486	2267	4753	2388	2158	4545	2311	2092	4403	2245	2048	4293	23514	19188	42703
K.L.Murray	857	821	1677	806	723	1529	744	1455	695	586	1281	733	618	1351	612	532	1144	685	567	1252	676	510	1186	668	545	1213	6477	4902	11378
PNG Total	69048	60859	129907	64189	55887	120077	62552	117159	58067	115510	46326	39884	86210	57632	49680	107312	46465	41117	87582	48746	42562	91308	514630	492827	1007457				

PROJECTED SCHOOL AGE POPULATION: BY AGE, GENDER AND PROVINCE

AGE GROUPS 6 - 14

PROVINCE	AGE GROUPS 6 - 14														TOTAL										
	Age 6		Age 7		Age 8		Age 9		Age 10		Age 11		Age 12			Age 13		Age 14							
	M	F	M	F	M	F	M	F	M	F	M	F	M	F		M	F	M	F						
Western	1026	970	1996	1871	387	832	1720	1013	971	1984	839	747	1586	925	713	1628	811	783	1594	816	754	1680	8367	8238	16606
Gulf	1236	1130	2389	2118	1639	891	1930	1170	913	2083	891	749	1640	1015	882	1897	907	769	1676	974	746	1720	9492	12327	21819
National Capital	3491	3374	6864	6326	3012	2788	5800	3276	2898	6174	2547	2386	4933	2772	2327	5298	2659	2382	5140	2593	2311	5004	24683	26144	52827
Central	2443	2294	4738	4328	2120	2087	4308	2361	2142	4703	2050	1740	3790	2217	1859	4076	1933	1673	3606	2032	1759	3781	20643	18158	38801
Milne Bay	2640	2475	5115	4899	2429	2342	4671	2597	2327	4924	2251	1917	4168	2438	2087	4525	2174	1913	4087	2059	1873	3932	21899	22034	43934
Oro	1974	1655	3529	3188	1373	1437	3010	1752	1472	3223	1347	1237	2584	1581	1357	2938	1376	1184	2660	1369	1223	2592	14391	14698	29089
Southern Highlands	7258	6153	13411	11668	6351	5175	11426	7219	5639	12558	3827	3101	6928	7096	5432	12528	4084	3428	7513	4980	3940	8920	53841	43360	97201
Eastern Highlands	5864	4643	10477	9633	5043	3643	8687	5013	3720	8732	3223	2389	5612	4456	3326	7782	3566	2656	6222	3761	2702	6463	41825	30834	72659
Simbu	2744	2585	5329	4970	2702	2310	5013	2732	2348	5080	1877	1513	3390	2486	2046	4533	1904	1543	3448	1895	1562	3457	21389	17977	39365
Western Highlands	6529	5273	11802	9584	4584	4170	6942	2802	2302	4851	1925	1411	4737	2530	2168	6919	1953	1689	5042	1944	1432	3376	32365	26023	68388
Enga	4653	4095	8772	7376	484	3114	7497	5016	3935	8950	2556	1964	4520	4932	3968	8900	2876	2314	5190	3487	2918	6406	34869	26169	61038
Madang	6718	5976	12696	11295	5386	5020	10986	6008	5388	11396	5342	4244	9606	5816	4961	10777	5182	4380	9562	5374	4149	9833	52584	41271	93855
Miang	5059	4079	9147	8413	4332	3471	8003	4672	3567	8239	3802	2830	6632	4334	3279	7613	2646	2896	6542	3762	2832	6591	39536	29772	69308
Sandaun	2693	2195	4888	4308	2366	1740	4106	2440	1854	4294	2079	1645	3725	2418	1708	4126	1980	1510	3490	1995	1657	3653	20004	16474	37377
East Sepik	4294	4017	8313	7332	3717	3398	7115	3986	3496	7482	3332	2812	6764	3813	3458	7272	3329	3137	6466	3416	3135	6551	34053	30409	64462
Manus	545	477	1023	993	497	449	946	479	462	940	447	419	866	468	441	910	445	460	905	498	459	957	4465	4392	8856
New Ireland	1543	1475	3018	2676	1363	1224	2593	1456	1241	2697	1153	1034	2187	1350	1150	2499	1192	1100	2291	1177	1114	2290	12078	9812	21890
East New Britain	3435	3217	6652	6318	3054	2648	5672	3104	2828	5932	2597	2372	4969	3003	2645	5648	2511	2419	4930	2750	2344	5095	26752	26148	102909
West New Britain	2110	2410	5119	4568	2226	1972	4269	2365	2023	4388	1957	1698	3565	2182	1871	4053	1876	1690	3566	2029	1604	3634	20213	15416	35631
North Solomons	3092	2958	6050	5602	2779	2599	5378	2667	2465	5131	2543	2319	4863	2443	2207	4650	2364	2140	4504	2297	2095	4392	24055	19630	43685
K.L. Murray	881	844	1725	1494	715	603	1318	754	635	1389	630	546	1176	705	583	1288	686	525	1220	688	560	1248	6665	5039	11704
PNG Total	70771	62284	133055	119982	59434	52015	111449	63881	55172	140353	47415	40826	88240	59020	50848	109868	47563	42092	80654	49915	43571	93486	527071	504324	1031595

PROJECTED SCHOOL AGE POPULATION: BY AGE, GENDER AND PROVINCE

AGE GROUPS 6 - 14

PROVINCE	AGE 6			AGE 7			AGE 8			AGE 10			AGE 11			AGE 12			AGE 13			AGE 14			TOTAL								
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T									
Western	1055	997	2053	1103	1011	2114	977	904	1881	1681	1681	3362	851	1769	2420	863	768	1631	952	753	1685	835	805	1639	870	775	1646	8610	8463	17073			
Gulf	1249	1157	2406	1149	985	2133	1127	948	2075	1179	1042	2221	1943	1769	3712	2097	1898	3995	1023	887	1910	1023	887	1910	982	750	1732	9568	12601	22069			
National Capital	3662	3569	7231	3326	3338	6664	3320	3081	6402	3436	3066	6502	6109	6109	12218	6612	6525	13137	2907	2673	5581	2907	2673	5581	2720	2551	5271	27991	27446	55437			
Central	2490	2338	4828	2600	2301	4901	2492	2116	4608	2183	2610	4793	4594	4594	9188	4793	4594	9387	2259	1894	4154	2259	1894	4154	2060	1792	3852	21035	18472	39508			
Milne Bay	2695	2530	5225	2709	2552	5261	2695	2411	5106	2652	2378	5030	4771	4771	9542	5030	4771	9801	2509	2113	4622	2509	2113	4622	2102	1914	4017	22359	22324	44683			
Oro	1913	1695	3608	1788	1558	3326	1704	1555	3259	1789	1507	3296	3077	3077	6154	3296	3296	6592	1614	1389	3004	1614	1389	3004	1507	1213	2720	14604	15083	29777			
Southern Highlands	7512	6306	13818	6613	5410	12023	6972	5514	12487	7471	5780	13251	11774	11774	23548	13251	13251	26502	7345	5568	12912	7345	5568	12912	5154	4038	9192	55726	44417	100143			
Eastern Highlands	5929	4641	10570	5522	4196	9718	5497	4173	9670	5088	3742	8830	8764	8764	17528	8830	8830	17660	4505	3346	7851	4505	3346	7851	3803	2718	6521	42385	31052	73437			
Simbu	2746	2601	5347	2478	2239	4717	2574	2373	4947	2734	2362	5097	5029	5029	10058	5097	5029	10126	2489	2059	4547	2489	2059	4547	1897	1571	3469	21410	18110	39520			
Western Highlands	6699	5394	12093	6037	4689	10726	6161	4942	11104	6044	4963	11007	7041	7041	14082	11007	11007	22014	2553	4469	7022	2553	4469	7022	1946	3511	5457	32858	36824	69682			
Enga	4861	4230	9091	4427	3316	7743	4476	3875	8351	4766	3766	8532	7766	7766	15532	8532	8532	17064	5119	4098	9218	5119	4098	9218	3620	3015	6634	36194	27028	63222			
Morobe	6874	6096	12970	6427	5054	11481	6114	5425	11539	6146	5406	11552	8155	8155	16310	11552	11552	22804	4429	3328	7758	4429	3328	7758	5497	4538	10035	53794	42110	95904			
Madang	5180	4140	9320	4994	3930	8924	4880	3723	8603	4774	3620	8395	8395	8395	16790	8395	8395	16790	2473	1742	4216	2473	1742	4216	2041	1690	3732	21384	16844	38228			
Sandaun	2755	2235	4990	2561	2087	4647	2484	1918	4402	2496	1891	4387	4196	4196	8392	4387	4387	8774	2473	1742	4216	2473	1742	4216	2041	1690	3732	21384	16844	38228			
East Sepik	4349	4077	8427	4184	3923	8107	3885	3549	7434	4038	3548	7586	7215	7215	14430	7586	7586	15172	3863	3510	7373	3863	3510	7373	3460	3182	6642	34495	50886	85382			
Manus	559	488	1047	571	525	1096	543	475	1017	491	472	963	963	963	1926	963	963	1926	480	452	932	480	452	932	510	470	980	4576	4497	9073			
New Ireland	1583	1520	3103	1580	1520	3100	1413	1339	2752	1494	1279	2773	1183	1067	2250	1067	1067	2134	1385	1185	2570	1385	1185	2570	1207	1148	2356	12392	10116	22508			
East New Britain	3548	3317	6865	3357	3181	6538	3179	3053	6234	3207	2932	6139	6139	6139	12278	6139	6139	12278	3102	2743	5845	3102	2743	5845	2641	2431	5072	27634	78223	105858			
West New Britain	2815	2503	5319	2590	2325	4915	2459	2287	4747	2457	2102	4559	2033	1671	3704	2033	2033	4066	2267	1944	4211	2267	1944	4211	2108	1667	3775	21003	16017	37020			
North Solomons	3163	3026	6189	3060	2911	5972	2946	2785	5731	2728	2522	5250	4639	4639	9278	5250	5250	10500	2499	2258	4757	2499	2258	4757	2350	2143	4493	24609	20081	44690			
K.L.Murray	907	867	1774	854	764	1617	788	751	1539	776	653	1429	648	562	1210	648	648	1296	725	600	1325	725	600	1325	716	539	1255	716	539	1255	1283	6848	8131
PNG Total	72546	63751	136297	67409	58542	125951	65686	57201	122887	64601	56476	121077	48536	41795	90331	60449	52051	112500	48693	43095	91788	51119	44609	95728	539881	516157	1056037						

PROJECTED SCHOOL AGE POPULATION: BY AGE, GENDER AND PROVINCE

AGE GROUPS 6 - 14

PROVINCE	Age 6												Age 7												Age 8												Age 9												Age 10												Age 11												Age 12												Age 13												Age 14												TOTAL																																																																																																																																																																																																																																																																																																																																																																																																																																														
	M						F						M						F						M						F						M						F						M						F						M						F																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Western	1066	1025	2111	1135	1040	2175	1005	929	1935	939	880	1819	1073	1026	2100	2089	888	790	1678	980	753	1733	859	827	1686	895	797	1692	1692	860	860	1754	1259	1164	2423	1136	1048	2184	1136	954	2090	1055	902	1957	1188	924	2112	1031	758	1663	1031	893	1924	922	778	1701	993	755	1745	964	964	12678	811	3736	7617	3489	3532	7020	3483	3260	6743	3714	3121	6435	3605	3244	6849	2802	2671	5473	3050	2828	5878	2925	2778	5703	2853	2699	5552	2936	2936	5818	1537	2382	4919	2649	2344	4993	2539	2156	4695	2513	2168	4681	2659	2225	4884	2139	1807	3936	2302	1930	4232	2407	1737	3744	2099	1826	3926	2135	1879	4028	252	2585	5337	2765	2689	5374	2752	2464	5116	732	2342	4874	2708	2430	5138	2347	2002	4349	2562	2159	4721	2266	1998	4264	2147	1956	4103	22829	23024	48853	1953	1735	3689	1825	1375	3400	1740	1593	3332	1640	1506	3146	1826	1543	3369	1404	1297	2702	1648	1423	3071	1538	1242	2780	1427	1282	2709	15002	15479	31481	7775	6464	14239	6845	5545	12390	7216	5652	12839	6696	5437	12133	7733	4924	12657	4699	3258	7357	7602	5707	13309	4375	3602	7242	3644	2734	6579	42751	45501	103178	2749	2616	5365	2480	2357	4837	2577	2387	4964	2708	2338	5046	2737	2376	5114	1881	1531	3412	2491	2071	4562	1968	1562	3470	1899	1581	3480	21431	18245	47067	6473	5518	12391	6194	4797	10990	6322	5056	11377	2777	4364	7142	2807	2077	7884	1929	2942	4871	2558	4572	7127	1957	3233	7977	1948	1392	5539	33363	37645	71066	5345	4369	9418	4079	3425	7505	3668	4003	7611	5308	3536	8044	5405	4197	9602	2754	2096	4860	5314	4234	9548	3099	2469	5568	3757	3114	6871	37569	27915	65484	2294	2284	4496	2619	2129	4748	2543	1956	4497	2476	1810	4287	2554	1929	4482	2176	1712	3888	2530	1777	4307	2072	1571	3643	2088	1724	3812	21876	17222	39095	4496	4139	8634	4238	3992	8231	3935	3603	7536	3815	3500	7315	4091	3601	7692	3624	3130	6954	3913	3503	7476	3416	3232	6648	3508	3230	6735	34944	31371	66315	1324	1568	3192	1539	1368	3107	1449	1381	2830	1441	1301	2732	1533	1319	2852	1214	1100	2313	1421	1222	2643	1254	1169	2423	1279	1184	2422	12714	10430	23144	3665	3460	7125	3468	3299	6767	3284	3169	6452	3227	2847	6074	3312	3041	6353	2771	2451	5322	3204	2845	6099	2680	2401	5281	2935	2521	5456	28546	80366	108912	2925	2601	5526	2691	2416	5107	2555	2376	4932	2414	2129	4543	2553	2184	4737	2132	1736	3848	2355	2019	4375	2025	1825	3849	2191	1732	3923	21823	16642	38462	3236	3096	6332	3131	2978	6109	3013	2849	5863	2908	2720	5628	2791	2580	5370	2462	2427	5089	2556	2310	4866	2474	2240	4714	2404	2193	4596	25175	20843	45715	933	892	1825	878	785	1663	811	772	1553	757	637	1394	799	671	1470	667	578	1244	746	616	1363	737	554	1291	723	592	1320	7057	5325	12382	74172	65262	139634	68091	59929	129019	67323	54496	116787	66166	57820	121986	49690	42793	92483	61922	53289	115211	49858	44129	97986	52359	45679	98038	553073	528335	1081402

PROJECTED SCHOOL AGE POPULATION: BY AGE, GENDER AND PROVINCE

A G E G R O U P S 6 - 14

PROVINCE	Age 6		Age 7		Age 8		Age 9		Age 10		Age 11		Age 12		Age 13		Age 14		TOTAL									
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F								
Western	1117	1054	2171	2054	1168	1069	2237	2177	1183	1104	1055	2159	914	812	1726	1008	775	1783	884	851	1734	921	819	1741	9117	8931	18048	
Gulf	1269	1171	2440	2164	1167	997	2164	1971	1198	929	2127	1237	912	763	1675	1039	898	1937	929	783	1712	998	759	1757	9721	12859	22580	
National Capital	4029	3906	8025	7396	3660	3726	7396	3302	3781	3432	7213	2940	2826	5766	3199	2992	6192	3069	2939	6008	2993	2854	5848	30891	30277	61078		
Central	2585	2427	5013	4785	2699	2389	5088	2779	2710	2567	4977	2169	1841	4011	2346	1967	4313	2045	1770	3815	2139	1861	4000	21842	19119	40961		
Milne Bay	2809	2642	5451	5489	3823	2666	5489	2933	2764	2484	5248	2396	2046	4442	2616	2207	4822	2313	2042	4356	2192	1999	4191	23308	23536	46844		
Oro	1995	1777	3772	3476	1863	1613	3476	1543	1865	1580	3445	1434	1329	2762	1683	1457	3140	1571	1272	2842	1457	1313	2770	15317	15885	31202		
Southern Highlands	8047	6626	14673	12768	7084	5684	12768	5773	8004	6073	14076	3330	3430	7582	4605	3386	7991	3685	2704	6389	3857	3072	6220	5521	9764	59095	46612	
Eastern Highlands	6049	4696	10736	9890	5644	4246	9890	3739	5180	3787	8967	3330	2433	5763	4605	3386	7991	3685	2704	6389	3857	3072	6220	5521	9764	59095	46612	
Simbu	2752	2632	5384	4981	2483	2266	4981	2552	2711	2562	5062	2391	1883	1540	3423	2494	2083	4577	1910	1571	3482	1901	1590	3491	21453	18382	39835	
Western Highlands	7052	5445	12697	11262	6355	4907	11262	4465	5172	4135	7880	2780	2004	4941	2558	4677	7235	3217	2550	5767	3900	3674	5624	33881	38481	72362		
Enga	5237	4515	9780	7773	3745	4135	7773	5328	6332	5610	4336	9946	2858	2165	5024	5516	4373	9889	3217	2550	5767	3900	3674	5624	33881	38481	72362	
Morobe	7193	6342	13536	12639	6726	5913	12639	6301	8468	6432	12149	5719	4525	10244	6227	5264	11491	5548	4648	10196	5753	4722	10475	56297	43840	100137		
Madang	5410	4263	9675	8933	4838	4159	8933	4838	6301	4987	3730	8717	4058	2959	7018	4626	3429	8055	3892	3025	6920	4016	2962	6977	42203	31330	73533	
East Sepik	2884	2329	5213	4851	2680	2171	4851	1847	3806	2613	1967	4580	2226	1746	3972	2589	1813	4401	2120	1603	3722	2136	1759	3895	22379	17610	39990	
Manus	587	511	1098	1067	599	549	1067	553	630	414	3655	3671	3379	7051	3964	3616	7580	3461	3280	6741	3551	3278	6829	35398	31864	67262		
New Ireland	1666	1616	3283	3195	1579	1616	3195	1342	2820	1573	1360	2933	1245	1134	2379	1458	1260	2718	1287	1205	2492	1271	1220	2491	13044	10753	23798	
East New Britain	3786	3588	7374	7003	3582	3421	7003	2933	4286	3422	3153	6075	2863	2645	5508	3310	2950	6200	2768	2697	5466	3031	2614	5646	29488	82577	112066	
West New Britain	3019	2703	5742	5306	2796	2510	5306	2212	4721	2652	2269	4922	2195	1804	3998	2447	2098	4545	2104	1896	4000	2276	1789	4076	22673	17291	39964	
North Solomons	3311	3167	6477	6249	3203	3047	6249	2733	5758	2855	2639	5494	2723	2483	5206	2615	2263	4978	2531	2291	4822	2459	2243	4702	25754	21015	46769	
K.L.Murray	960	917	1877	1711	835	793	1711	655	1434	822	690	1512	686	594	1280	768	634	1402	738	570	1328	749	609	1358	7261	5474	12736	
PNG Total	76354	66817	133179	128958	69008	59450	128958	63785	55791	119577	67780	59203	126982	50879	43821	94700	63439	54564	118003	51057	45193	96250	53637	46780	108417	566660	540873	1107533

PROJECTED SCHOOL AGE POPULATION: BY AGE, GENDER AND PROVINCE

AGE GROUPS 6 - 14

PROVINCE	Age 6			Age 7			Age 8			Age 9			Age 10			Age 11			Age 12			Age 13			Age 14			TOTAL		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T			
Western	1150	1085	2300	1099	1033	2199	995	950	1992	1136	1085	2240	940	835	1775	1037	976	1834	989	874	1790	948	842	1790	9381	9175	18556			
Gulf	1280	1171	2457	1166	1083	2179	1072	1013	1985	1308	1208	2513	920	767	1687	1047	903	1951	937	787	1724	1006	764	1770	9789	13044	22843			
National Capital	4227	4227	8454	3839	3953	7792	3649	3413	7062	3967	3631	7598	3084	2990	6074	3356	3166	6522	3219	3109	6329	3129	3021	6161	32310	31814	64125			
Central	2635	2473	5108	2751	2414	5165	2610	2251	4860	2761	2310	5071	2210	1876	4087	2391	2004	4395	2084	1804	3888	2180	1897	4076	22257	19451	41708			
Milne Bay	2868	2706	5569	2883	2725	5607	2639	2446	5085	2822	2539	5361	2446	2091	4537	2671	2255	4926	2362	2087	4449	2238	2043	4281	23798	24059	47856			
Oro	2036	1820	3856	1903	1651	3554	1710	1580	3289	1904	1618	3522	1464	1360	2824	1718	1492	3210	1604	1302	2906	1488	1344	2832	15639	16303	31941			
Southern Highlands	8329	6791	15120	7332	5826	13158	7173	5712	12885	8284	6224	14508	4591	3423	7814	8143	5996	14139	4687	3784	8471	5715	4349	10863	61784	47740	109534			
Eastern Highlands	6126	4725	10851	5706	4272	9978	5269	3732	9001	5237	3810	9047	3367	2447	5814	4656	3407	8062	3725	2721	6446	3929	2767	6696	43606	31715	75411			
Simbu	2755	2648	5402	2485	2279	4765	2713	2466	5079	2743	2405	5148	1885	1549	3434	2496	2096	4592	1912	1581	3493	1903	1600	3503	21474	18519	39994			
Western Highlands	7235	5775	13010	6520	5020	11540	4567	3473	7350	3813	3313	6126	1933	3079	5012	2560	4784	7345	1961	3383	5344	1952	3759	5710	34412	39337	73749			
Enga	5436	4662	10098	4395	3655	8050	4857	3773	8630	5823	4479	10702	2967	2337	5204	5726	4518	10243	3339	2635	5974	4048	3323	7371	40479	29778	70257			
Madang	7239	6469	13828	6880	6032	12912	6446	5334	11880	6580	5832	12412	5851	4615	10466	6370	5370	11739	5675	4741	10416	5885	4816	10701	57592	44732	102234			
Sandaun	5530	4329	9858	5395	4221	9616	4944	3684	8628	5097	3786	8382	4148	3004	7151	4728	3480	8208	3977	3073	7051	4104	3086	7110	43132	31869	75001			
East Sepik	2980	2376	5356	2741	2215	4956	2592	1833	4475	2673	2007	4679	2278	1781	4058	2648	1849	4497	2168	1635	3803	2185	1794	3979	22894	18008	40802			
Manus	602	523	1125	614	562	1176	548	492	1040	528	506	1034	493	459	952	517	483	1001	491	504	985	549	503	1053	4928	4825	9754			
New Ireland	1710	1666	3376	1620	1666	3287	1526	1383	2900	1614	1402	3016	1278	1169	2446	1495	1299	2795	1320	1243	2563	1304	1258	2562	13384	11087	24470			
East New Britain	3911	3721	7632	3701	3547	7248	3444	3362	6506	3535	3270	6805	2957	2743	5700	3419	3059	6479	2960	2797	5657	3131	2711	5843	30461	84861	115123			
West New Britain	3158	2808	5966	2905	2608	5513	2606	2279	4905	2756	2358	5114	2280	1874	4154	2543	2180	4723	2186	1970	4156	2365	1870	4255	23557	17965	41523			
North Solomons	3387	3240	6626	3276	3117	6393	3043	2647	5890	2921	2700	5630	2786	2540	5326	2675	2417	5092	2589	2344	4933	2516	2295	4810	26346	21499	47845			
K.L. Murray	988	942	1931	930	830	1760	802	673	1475	846	709	1555	706	610	1317	790	681	1442	780	586	1366	771	626	1397	7472	5627	13099			
PNG Total	78192	68420	146611	72604	63828	136432	63324	57126	122450	69443	60827	130070	52103	44880	96982	65003	55877	120880	52292	46290	98582	54953	47915	102868	580655	533783	1134437			

PROJECTED SCHOOL AGE POPULATION: BY AGE, GENDER AND PROVINCE

AGE GROUPS 6 - 14

PROVINCE	Age 6		Age 7		Age 8		Age 9		Age 10		Age 11		Age 12		Age 13		Age 14		TOTAL											
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F												
Western	1183	1114	2297	1236	1130	2366	1095	1010	2105	1021	256	1979	1169	1115	2284	968	838	1826	1067	819	1866	936	899	1835	976	866	1842	9653	9425	
Gulf	1290	1185	2475	1186	1009	2194	1163	971	2134	1081	918	1999	1217	941	2158	927	772	1699	1056	909	1965	944	792	1736	1014	769	1782	9878	13232	
National Capital	434	4172	8906	4027	4182	8210	4021	3861	7882	3825	3696	7521	4161	3842	8003	3235	3163	6398	3521	3349	6870	3377	3291	6667	3293	3197	6490	33894	33440	
Central	2685	2510	5205	2803	2481	5283	2687	2581	4968	2659	2293	4953	2814	2354	5168	2252	1912	4164	2436	2042	4478	2123	1838	3962	2221	1933	4154	22680	19789	
Milne Bay	2929	2760	5688	2943	2785	5728	2929	2630	5559	2695	2500	5195	2882	2594	5476	2498	2157	4635	2727	2305	5031	2412	2133	4545	2285	2088	4373	24297	24593	
Oro	2079	1863	3943	1943	1691	3634	1851	1710	3561	1746	1518	3363	1944	1657	3401	1494	1393	2988	1754	1528	3282	1637	1334	2971	1519	1377	2896	15967	16731	
Southern Highlands	8620	6961	15581	7589	5972	13561	8001	6087	14088	7424	6353	13279	8574	6380	14954	4545	3509	8054	8428	6146	14574	4851	3879	8730	5915	4457	10372	63947	48915	
Eastern Highlands	6194	4753	10947	5769	4298	10066	5743	4274	10017	5327	354	9081	5295	3833	9127	3404	2462	5866	4707	3427	8134	3766	2737	6503	3973	2781	6756	44177	31940	
Simbu	7424	5948	13331	6689	5136	11825	6828	5413	12241	2786	1980	4572	7458	2816	5436	8251	3159	5085	2563	4895	7457	1963	3461	5424	1905	1609	3514	24496	18658	
Western Highlands	5643	4816	10459	4562	3776	8338	4035	4412	8447	5041	3898	8939	6045	4627	10671	3080	2311	5390	5943	4667	10610	3466	2721	6187	4202	3433	7655	42017	30756	
Enga	7528	6595	14127	7039	6152	13191	6606	5872	12568	6594	5543	13130	6731	5949	12680	5985	4708	10693	6516	5477	11993	5806	4336	10642	6021	4913	10935	58916	45643	
Morobe	5651	4794	10045	5513	4285	9798	5324	3952	9276	5053	2739	8792	5209	3843	9051	4239	3049	7288	4832	3533	8365	4065	3120	7181	4194	3051	7245	44081	32420	
Maidang	3018	2421	5441	2804	2259	5063	2729	2076	4796	2651	1921	4572	2734	2047	4781	2330	1816	4146	2749	1886	4595	2215	1668	3886	2236	1830	4065	24421	18415	
Sandaun	4580	4328	8908	4406	4174	8580	4091	3767	7858	3965	3560	7626	4252	3766	8018	3768	3482	7249	4068	3725	7793	3551	3379	6931	3643	3377	7021	36324	32874	
East Sepik	617	535	1152	630	575	1205	599	520	1119	562	503	1065	541	517	1059	506	469	975	530	495	1025	503	516	1019	563	515	1075	5051	4940	
New Ireland	1754	1718	3472	1662	1718	3380	1565	1513	3078	1556	1126	2983	1656	1445	3101	1311	1205	2516	1554	1339	2874	1355	1281	2636	1338	1297	2635	13732	11430	
East New Britain	4040	3658	7898	3823	3679	7501	3619	3533	7153	3557	3175	6732	3651	3391	7042	3055	2345	5899	3532	3172	6705	2954	2901	5855	3235	2811	6046	31467	87220	
West New Britain	3281	2917	6199	3019	2709	5728	2866	2665	5531	2708	2388	5096	2863	2450	5313	2469	1947	4316	2642	2265	4907	2271	2047	4318	2457	1943	4480	24476	18666	
North Solomons	3465	3314	6779	3352	3189	6540	3226	3080	6277	3113	2712	6026	2988	2762	5749	2850	2599	5448	2737	2473	5210	2649	2398	5046	2573	2347	4921	26952	21993	
K.L.Murray	1017	969	1986	957	853	1830	884	838	1722	825	642	1517	870	729	1599	737	627	1354	813	670	1483	803	602	1405	793	643	1436	7689	5785	
PNG Total	80187	70071	150258	74440	64343	138782	72529	62867	135306	66909	58500	125410	71156	62094	132250	53363	45971	99334	66614	57229	123843	53564	47421	100984	56309	49084	105393	595071	567077	1162148

PROJECTED SCHOOL AGE POPULATION: BY AGE, GENDER AND PROVINCE

AGE GROUPS 6 - 14

Table with columns for PROVINCE, AGE 6, AGE 7, AGE 8, AGE 9, AGE 10, AGE 11, AGE 12, AGE 13, AGE 14, and TOTAL. Rows include Western, Gulf, National Capital, Central, Milne Bay, Oro, Southern Highlands, Eastern Highlands, Simbu, Western Highlands, Enga, Morobe, Madang, Sandaun, East Sepik, Manus, New Ireland, East New Britain, West New Britain, North Solomons, K.L. Murray, and PNG Total.

PROJECT 3. SCHOOL AGE POPULATION: BY AGE, GENDER AND PROVINCE

2002

AGE GROUPS 6 - 14

PROVINCE	Age 6		Age 7		Age 8		Age 9		Age 10		Age 11		Age 12		Age 13		Age 14		TOTAL										
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F									
	Western	1253	1177	2430	2510	1209	1194	2503	2227	1084	1010	2094	2028	1237	1178	1931	1935	991	980	1941	1941	1033	915	1048	1021	9947	20168		
Gulf	1311	1196	2510	2226	1205	1021	2226	2165	1098	929	2028	2028	1237	1178	1931	1935	991	980	1941	1941	1033	915	1048	1021	9947	20168			
National Capital	4879	5066	9885	4431	4682	4124	4322	8746	4210	4137	8346	4579	4300	8879	7101	3874	3740	3716	3682	7398	3624	3578	7202	37297	36975	74272			
Central	2788	2617	5405	5486	2910	2576	5486	5159	2761	2531	5143	2922	2444	5366	4324	2529	2121	4650	1909	4114	2306	2107	4313	23550	20485	44035			
Milne Bay	3053	2882	5935	3068	2908	2908	5977	5300	2809	5611	5420	3004	2842	4836	4836	2407	2407	2514	2228	4742	2382	2181	4563	25329	25698	51026			
Oro	2167	1954	4121	3798	2025	1773	3798	3723	1820	1636	3516	2026	1737	3764	3019	1829	1602	1707	1398	3105	1584	1444	3027	16645	17623	34268			
Southern Highlands	9234	7314	16548	14403	8130	6274	14403	14966	7953	6152	14104	9184	6703	15887	8555	9029	6457	15485	4075	9272	6336	4683	11019	68501	51332	119834			
Eastern Highlands	6331	4810	11141	10246	5896	4349	10246	10196	5445	3779	9244	5412	3879	9290	5971	4811	3468	3830	2770	6619	4061	2817	6878	45154	32395	77549			
Simbu	2763	2696	5459	2403	2493	2321	2403	2459	2721	2439	5130	2751	2449	5199	3468	2504	2134	4638	1918	1609	3527	1909	1629	3538	21539	18941	40480		
Western Highlands	7815	6182	13997	7042	7042	5374	7042	12852	2791	4810	7681	2821	5688	8510	5235	2568	5122	7690	3622	5589	1958	4024	5982	36088	42023	78111			
Enga	6080	5130	11219	8945	4916	4029	8945	9056	5432	4158	9591	4937	11420	3318	2466	5784	4980	11383	2904	6638	4528	3663	8191	45271	32809	78080			
Morobe	7878	6865	14743	13767	7366	6401	13767	13117	6901	5167	12668	7044	6189	13233	6264	6820	5698	12518	6976	5031	11107	6301	5111	11412	61658	47520	109177		
Madang	5903	4527	10429	5758	5758	4414	5758	5632	3278	3852	9130	5440	3939	9399	4228	6260	5047	3639	8686	4246	3214	7460	4381	3143	46442	33553	79595		
Sanduan	3158	2421	5679	5385	2935	2350	5385	5067	2775	1763	4773	2861	2129	4991	2438	1890	4228	3141	7568	3141	11077	4381	3143	46442	33553	79595			
East Sepik	4700	4456	9158	8822	4521	4301	8822	8079	4069	3771	7840	4364	3880	8243	3866	3587	3644	4797	7321	1735	4056	2340	1944	4243	24510	19259	43769		
Manus	648	560	1208	1263	662	602	1263	1173	590	527	1117	569	541	1110	531	491	1023	518	1074	529	540	1068	592	539	5307	5179	10486		
New Ireland	1846	1826	3673	3576	1750	1826	3576	3256	1638	1516	3154	1743	1536	3279	1380	1281	2661	1426	1362	2788	1498	1379	2787	14455	12150	26605			
East New Britain	4311	4149	8460	8038	4079	3956	8038	7662	3796	3415	7210	3896	3647	7843	3260	3059	6319	3412	7181	3152	3119	6271	3452	3023	33578	92171	125749		
West New Britain	3542	3149	6691	6183	3259	2925	6183	5971	2923	2778	5501	3091	2645	5736	2558	2102	4689	2445	2309	4661	2653	2097	4750	26422	20180	46573			
North Solomons	3626	3461	7094	6845	3508	3037	6845	6569	3258	3048	6306	3127	2890	6017	2982	2719	2588	5452	2772	2509	5281	2693	2457	5190	28206	23017	51223		
K. L. Murray	1077	1021	2100	1914	1013	901	1914	1822	874	731	1605	922	770	1602	1432	861	708	850	637	1486	840	680	1520	8141	6113	14255			
PNG Total	84362	78525	157886	145789	78276	67513	145789	142226	70226	61374	131602	74743	65163	139906	55998	48255	104253	69586	60056	130042	56224	49787	106012	59146	51530	110676	625225	594876	1220101

PROJECT: SCHOOL AGE POPULATION: BY AGE, GENDER AND PROVINCE

AGE GROUPS 6 - 14

PROVINCE	Age 6			Age 7			Age 8			Age 9			Age 10			Age 11			Age 12			Age 13			Age 14			TOTAL		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Western	1289	1210	2499	1347	1227	2574	1191	1097	2289	1115	1038	2153	1273	1211	2485	1054	932	1986	1163	889	2052	1019	977	1996	1063	941	2004	10518	10218	20736
Gulf	1321	1206	2527	1215	1027	2241	1191	989	2180	1107	935	2042	1247	953	2204	949	786	1735	1081	925	2007	967	896	1774	1038	783	1821	10116	13821	23937
National Capital	5118	5297	10415	4649	4953	9602	4641	4572	9214	4416	4377	8793	4803	4550	9353	3734	3746	7480	4064	3967	8031	3898	3896	7794	3801	3786	7587	39124	38896	78021
Central	2841	2667	5508	2966	2625	5590	2843	2414	5257	2814	2427	5240	2977	2491	5468	2383	2023	4406	2577	2161	4738	2247	1945	4192	2350	2045	4395	21998	20842	44840
Milne Bay	3117	2946	6063	3133	2972	6105	3117	2808	5925	2868	2649	5517	3067	2769	5837	2658	2381	5039	2902	2460	5362	2567	2277	4844	2432	2229	4661	25861	26269	52129
Oro	2213	2001	4214	2067	1816	3883	1971	1836	3807	1838	1737	3575	2069	1779	3848	1591	1496	3086	1867	1640	3507	1743	1432	3174	1617	1478	3095	16994	18087	35081
Southern Highlands	9557	7496	17054	8414	6431	14845	8871	6555	15426	8231	6325	14556	9506	6870	16376	5039	3778	8818	9345	6618	15963	5378	4177	9555	6558	4800	11358	70899	52586	123484
Eastern Highlands	6401	4839	11240	5961	4375	10337	5935	4382	10286	5505	3822	9327	5471	3902	9373	3517	2507	6024	4864	3489	8353	3892	2786	6678	4105	2834	6939	45651	45651	78276
Simbu	2766	2712	5478	2495	2335	4830	2592	2474	5067	2724	2223	5147	2754	2463	5217	1892	1587	3479	2506	2147	4653	1920	1619	3539	1911	1639	3549	21560	19084	40644
Western Highlands	8018	6325	14342	7225	5498	12723	7374	5795	13169	2794	2492	7286	2824	2519	8643	1941	3372	5513	2571	5240	7811	1969	3705	5674	1960	4117	6076	36675	42959	79634
Enga	6311	5309	11620	5102	4162	9264	4513	4864	9376	5638	4295	9933	6760	5100	11860	3444	2547	5991	6647	5144	11791	3876	3000	6876	4700	3784	8487	46991	33886	80878
Morobe	8069	7002	15071	5885	4480	10366	7169	6231	13400	7060	5882	12942	7206	6313	13519	6408	4996	11404	6976	5812	12789	6216	5132	11348	6446	5213	11659	63076	48487	111563
Mudang	6032	4591	10623	3002	2397	5399	2912	2203	5115	2838	2159	4877	2927	2172	5099	2494	1927	4422	2980	2001	4901	2375	1770	4144	2594	1942	4335	25074	19697	44771
Sandaun	4761	4525	9286	4580	4365	8945	4252	3939	8191	4122	3128	7950	4420	3938	8358	3916	3641	7557	4229	3896	8124	3692	3534	7225	3787	3531	7319	37760	34450	72209
East Sepik	664	573	1237	678	616	1294	645	556	1202	605	539	1144	583	554	1137	545	503	1047	571	530	1100	542	552	1094	607	551	1158	5440	5302	10742
Niatus	1895	1883	3777	1795	1883	3678	1691	1658	3349	1681	1563	3244	1788	1584	3372	1416	1321	2786	1657	1468	3425	1463	1404	2867	1445	1422	2867	14831	12526	27357
New Ireland	4453	4303	8756	4214	4102	8316	3990	3940	7930	3921	3541	7482	4025	3782	7806	3367	3172	6540	3894	3538	7431	3256	2647	5904	2547	2296	4843	34686	94770	129456
East New Britain	3680	3272	6952	3386	3039	6425	3215	2989	6204	3037	2679	5716	3211	2748	5959	2657	2184	4841	2963	2541	5504	2547	2296	4843	2756	2179	4933	27433	20936	48389
West New Britain	3799	3548	7347	3588	3414	7002	3454	3266	6720	3333	3115	6451	3199	2957	6155	3051	2782	5833	2930	2648	5577	2836	2567	5403	2755	2513	5268	28855	23546	52401
North Solomons	1108	1057	2165	1043	926	1969	961	911	1874	899	852	1651	948	792	1740	792	682	1473	886	727	1613	874	654	1529	864	699	1563	8377	6285	14662
S.L.Murray	86544	75322	161866	80281	69172	149453	78215	67582	145797	71961	62151	134841	76620	66769	143388	57375	49450	106825	71751	61534	133285	57616	51026	108642	60630	52810	113440	640992	609410	1250402

PROJECTED SCHOOL AGE POPULATION: BY AGE, GENDER AND PROVINCE

AGE GROUPS 6 - 14

PROVINCE	Age 6		Age 7		Age 8		Age 9		Age 10		Age 11		Age 12		Age 13		Age 14		TOTAL											
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F										
	Western	1327	1244	1386	1261	1228	1128	2356	1147	1067	2215	1310	1245	2555	958	2043	1197	914	2111	1049	1094	2053	2061	3061	10823	10497	21320			
Gulf	1332	1213	1224	1033	995	2196	2196	1116	941	2056	1257	963	2220	957	1748	1090	931	2021	2021	975	811	1786	1834	1834	10197	14025	24222			
National Capital	5369	5604	10973	5241	4869	4838	9706	4632	431	9263	5039	4813	9852	3917	3963	4263	4197	8460	8460	4089	4122	8211	7993	7993	41041	40927	81969			
Central	2894	2717	3022	2675	2897	2460	5357	2867	277	5340	3034	2538	5572	2429	2062	4491	2636	2202	4829	2389	1982	4271	2195	2084	24454	21206	45660			
Milne Bay	3182	3011	3198	3038	3182	2870	6052	2928	2271	5655	3132	2830	5962	2714	2331	5045	2963	2514	5477	2621	2327	4948	2483	2278	26404	26852	53256			
Oro	2259	2059	2111	1859	3012	1880	3892	1897	1778	3675	2112	1822	3934	1624	1532	3156	1906	1680	3886	1779	1466	3245	1651	1514	17351	18563	35915			
Southern Highlands	9892	7682	17576	8709	6592	15300	9181	6719	15993	8519	6437	14982	16881	5215	3873	9088	9672	6784	16455	5567	4281	9848	6787	4920	73380	53870	127250			
Eastern Highlands	6471	4868	11339	6027	4402	10428	10378	5565	3845	9410	5532	3925	9457	3556	2522	6078	4917	3510	8427	3935	2803	6738	4150	2851	46153	32858	79011			
Simbu	2768	2721	2498	2349	2498	2489	5084	2727	2438	5165	2756	2478	5234	1894	1596	3491	2509	2159	4668	1922	1629	3551	1913	1648	3561	21582	19229	40811		
Western Highlands	8226	6470	14696	7413	5625	13037	13494	2797	5117	7914	2827	5953	8780	1943	3450	5392	2575	5361	7934	1971	3790	5761	1962	4211	6173	37277	43916	81193		
Enga	6550	5484	12035	5296	4299	9596	9596	3853	4438	10291	7017	5268	12286	3575	2631	6206	6899	5314	12213	4024	3099	7123	4878	3909	8787	48777	34999	83776		
Morobe	8245	7142	15387	7109	6659	14768	13689	7222	6000	13222	7372	6439	13811	6555	5096	11651	7137	5928	13065	6359	5234	11593	6594	5317	11911	64526	49475	114801		
Madang	6165	4663	10829	6015	5808	4194	10003	5513	3969	9482	5682	4078	9761	4625	3236	7860	5271	3749	9021	4435	3311	7746	4576	3238	7814	48090	34723	82823		
Sandaun	3305	2622	5928	3071	2445	2979	5226	2904	2079	4983	2994	2215	5210	2552	1966	4518	2967	2041	5088	2429	1805	4234	2449	1981	4429	25651	20145	45796		
East Sepik	4823	4593	9416	4639	4308	3998	8306	4176	3985	8061	4478	3997	8475	3667	3695	7663	4284	3954	8238	3740	3587	7326	3837	3584	7421	38250	34992	73247		
Manus	681	596	1267	695	661	569	1230	620	551	1172	598	566	1164	558	514	1072	585	542	1127	555	565	1120	622	564	1185	5576	5428	11004		
New Ireland	1944	1941	3885	1842	1735	1710	3444	1725	1611	3556	1835	1633	3468	1452	1362	2814	1780	1513	3214	1501	1447	2949	1483	1466	2948	15216	12915	28131		
East New Britain	4600	4486	9062	4353	4086	8207	4050	3572	7722	4158	3921	8079	6768	3479	3289	6768	4022	3669	7691	3364	3354	6718	3683	3251	6935	35830	97455	133286		
West New Britain	3524	3400	7224	3518	3406	6446	3156	2783	5939	3337	2855	6192	2761	2249	5030	3079	2640	5718	2640	3646	2388	5032	2863	2264	5127	28524	21753	50276		
North Solomons	3795	3630	7424	3671	3533	3341	6874	3410	5190	6599	3272	3025	6297	3121	2846	5967	2997	2708	5706	2901	2636	5527	2818	2571	5389	29518	24088	53606		
K.L.Murray	1140	1085	2222	1073	936	936	1927	925	773	1698	976	814	1790	815	701	1515	912	748	1659	900	673	1572	889	718	1648	8620	6461	15081		
PNG Total	88792	77197	165987	82346	70882	153228	81226	69251	149477	73749	54431	138180	78555	68423	146978	58794	50632	109476	75570	63058	136628	59049	52303	111353	62160	54129	116289	657241	624388	1281629

PROJECTED SCHOOL AGE POPULATION: BY AGE, GENDER AND PROVINCE

AGE GROUPS 6 - 14

PROVINCE	Age 6		Age 7		Age 8		Age 9		Age 10		Age 11		Age 12		Age 13		Age 14		TOTAL					
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F				
	Western	1405	1314	2719	1468	1533	2801	1215	1128	2343	1316	1387	1613	2161	1267	1061	2172	1158	1022	2180	11459	11078	22538	
Gulf	1353	1228	2581	1244	1045	2289	1134	952	2086	1277	1108	890	1772	1108	821	1812	1063	797	1860	10361	14447	24808		
National Capital	5908	6273	12181	5366	5866	11232	5097	5113	10281	5544	5388	4437	8747	4691	4614	9114	4388	4483	8871	45162	45346	90508		
Central	3006	2822	5827	3138	2777	5915	2977	2668	5545	3150	2655	2141	4662	2727	2038	4435	2487	2164	4680	25392	21955	47346		
Maline Bay	3317	3145	6462	3334	3173	6507	3317	3053	6369	3264	2956	2829	5264	3089	2431	5162	2538	2380	4968	27524	28059	55583		
Oro	2355	2148	4504	2290	1950	4150	2097	1972	4069	2202	1910	1693	3299	1987	1537	3392	1721	1587	3308	18088	19555	37643		
Southern Highlands	10596	8073	18669	9329	6925	16234	9126	6790	15916	10539	7399	4069	9656	10361	4498	10461	7271	5169	12440	78607	56533	135140		
Eastern Highlands	6614	4927	11541	6160	4455	10615	6133	4430	9580	5654	3973	2552	6187	5026	2837	6859	4242	2885	7128	47174	33329	80503		
Simbu	2774	2761	5535	2503	2377	4880	2600	2467	5290	2762	2508	1615	3514	2514	1648	3574	1916	1668	3585	21625	19523	41148		
Western Highlands	8660	6771	15431	7803	5886	13689	7964	6204	14169	2833	6230	3610	5557	5610	1975	5942	1966	4407	6373	38528	45995	84423		
Enga	7058	5852	12910	5706	4588	10294	5047	4526	11042	7861	5622	2898	6660	7434	5671	7642	5256	4171	9427	52555	37335	89890		
Morobe	8629	7431	16060	8068	6928	14996	7675	6613	14287	7715	6099	6860	12162	7469	5446	12100	6901	5532	12433	67529	51511	119040		
Mandala	6439	4844	11244	6282	4685	10967	6067	4079	9847	5935	4202	3324	8164	5506	3863	8369	4632	3336	8115	50229	35961	86189		
Sandaun	3459	2729	6188	3214	2544	5758	3118	2338	5456	3039	2164	2045	4716	3105	2124	4420	2563	2061	4623	26844	21076	47920		
East Sepik	4949	4732	9681	4761	4565	9325	4430	4119	8339	4285	4092	3807	7878	4296	4073	8469	3837	3693	7630	39251	36103	75354		
Manus	716	613	1328	730	659	1389	695	596	1290	652	628	538	1125	615	567	1175	653	590	1243	5858	5690	11548		
New Ireland	2046	2063	4109	1939	2063	4102	1826	1817	3643	1815	1932	1447	2976	1790	1699	3398	1580	1539	3119	16018	13728	29746		
East New Britain	4909	4798	9707	4635	4575	9220	4302	3949	8271	4417	4217	3537	7249	4292	3945	8237	3589	3607	7427	38234	103977	141331		
West New Britain	4128	3670	7798	3798	3408	7206	3406	3353	6959	3402	3082	2981	5430	3324	2850	6173	2857	2575	5432	3091	30792	23483	54274	
North Solomons	3971	3799	7770	3842	3655	7496	3698	3496	7194	3424	3165	2978	6245	3137	2834	5971	3026	2691	5640	30892	25208	56100		
K.L.Murray	1207	1143	2330	1136	1096	2142	1049	989	2038	980	1033	740	1603	965	790	1756	953	759	1701	9127	6827	15955		
PNG Total	93498	81897	174595	86666	74464	161130	84432	77492	145170	82608	71888	53264	115026	77379	66248	143627	62050	54980	117030	65362	56893	691249	655738	1346987

PROJECT SCHOOL AGE POPULATION : BY AGE, GENDER AND PROVINCE

AGE GROUPS 6 - 14

PROVINCE	Age 6			Age 7			Age 8			Age 9			Age 10			Age 11			Age 12			Age 13			Age 14			TOTAL						
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T							
Western	1487	1389	2876	1554	1409	2963	1377	1259	2636	1192	1070	2266	1342	1125	2467	1021	953	1974	1176	1121	2297	1226	1080	2306	1226	1080	2306	1226	1080	2306	11692			
Gulf	1375	1245	2620	1264	1058	2322	1240	1019	2259	965	810	1775	1125	953	2078	953	810	1763	1086	831	1917	1080	886	1966	1080	886	1966	1080	886	1966	14886			
National Capital	6501	7121	13622	5905	6566	12471	5895	6461	12356	5802	6243	12045	6101	6031	12132	5162	5259	10421	4951	5165	10116	4828	5019	9847	4828	5019	9847	4828	5019	9847	50286			
Central	3121	2930	6051	3258	2884	6142	3124	2652	5776	3091	2666	5757	3271	2776	6047	2832	2374	5206	2468	2137	4605	2582	2247	4829	2582	2247	4829	2582	2247	4829	27331			
Milne Bay	3458	3284	6743	3476	3314	6790	3458	3131	6589	3403	3088	6491	3449	2943	6392	3220	2743	5963	2848	2539	5387	2698	2486	5184	2698	2486	5184	2698	2486	5184	29319			
Oro	2455	2263	4718	2291	2044	4338	2186	2067	4254	1955	1814	3769	2095	1905	3999	2071	1847	3918	1933	1612	3546	1794	1664	3458	1794	1664	3458	1794	1664	3458	20601			
Southern Highlands	11351	8481	19833	9993	7276	17269	10536	7416	17952	1134	938	2072	11698	7488	19186	5985	4275	10260	6388	4726	11114	7788	5431	13219	4336	2920	7256	4336	2920	7256	33807			
Eastern Highlands	6760	4965	11725	6296	4508	10805	6268	4484	10752	5814	3997	9811	5779	4020	9799	3715	2583	6298	5137	3595	8732	4111	2871	6982	4336	2920	7256	4336	2920	7256	33807			
Simbu	2780	2741	5521	2508	2406	4913	2605	2549	5155	2738	2497	5235	2588	2305	4893	2767	2538	5305	1902	1635	3537	2519	2212	4731	1920	1688	3608	1920	1688	3608	19823			
Western Highlands	9116	7086	16202	8214	6148	14362	8384	6493	14877	8008	6054	14062	8146	5999	14145	7729	5854	13583	8178	6051	14229	7579	5855	13434	7579	5855	13434	7579	5855	13434	79643			
Enga	7604	6245	13849	6148	4896	11044	6438	5721	12159	6794	6054	12848	8146	5999	14145	8146	6051	14197	8178	6051	14229	7579	5855	13434	7579	5855	13434	7579	5855	13434	96453			
Morobe	9039	7731	16770	8443	7208	15651	8032	6880	14912	7910	6494	14404	7180	5516	12696	7817	6417	14234	6964	5666	12630	7222	5756	12978	70671	53632	124303	7222	5756	12978	70671	53632	124303	124303
Maidang	6726	4980	11706	6562	4827	11389	6337	4451	10788	6014	4112	10126	6199	4329	10528	5045	3434	8479	5751	3980	9730	4838	3514	8352	4992	3457	8429	4992	3457	8429	37239			
Sanjaun	3620	2839	6459	3364	2647	6011	3263	2432	5695	3180	2751	5931	3280	2398	5678	4178	3922	8100	4511	4197	8707	3938	3807	7745	4040	3814	7844	4040	3814	7844	28093			
East Sepik	5079	4725	9804	4885	4703	9588	4536	4244	8780	4397	4123	8520	4715	4242	8957	4178	3922	8100	4511	4197	8707	3938	3807	7745	4040	3814	7844	4040	3814	7844	37239			
Manus	752	611	1363	767	690	1457	730	623	1353	685	614	1299	660	620	1280	563	563	1126	646	595	1241	613	619	1232	686	617	1304	613	615	1228	613	615	1228	5965
New Ireland	2154	2145	4299	2041	2193	4234	1922	1932	3854	1911	1821	3732	2033	1845	3878	1609	1538	3147	1884	1710	3594	1663	1635	3299	1643	1656	3299	1643	1656	3299	16862			
East New Britain	5228	5166	10394	4957	4919	9876	4693	4725	9418	4612	4246	8859	4734	4535	9269	3964	3804	7768	4580	4243	8822	3830	3679	7509	4194	3760	7954	4194	3760	7954	40799			
West New Britain	4456	3962	8418	4100	3679	7779	3892	3650	7542	3677	3243	6920	3888	3327	7216	2644	2644	5288	3588	3076	6664	3084	2779	5864	3337	2638	5975	3337	2638	5975	33240			
North Solomons	4156	3975	8131	4020	3825	7845	3870	3659	7529	3734	3493	7228	3584	3313	6896	3418	3117	6535	3283	2966	6249	3177	2876	6053	3087	2816	5903	3087	2816	5903	32329			
K.L.Murray	1278	1208	2486	1203	1064	2266	1111	1046	2156	1037	863	1900	1094	909	2003	913	782	1696	1022	835	1857	1009	751	1760	997	802	1799	997	802	1799	9664			
PNG Total	98497	85296	183793	91253	78275	169527	88897	76464	165362	81471	71133	152603	86919	75574	162493	64916	56012	120928	81429	69639	151069	65239	57831	123070	68766	59834	128600	68766	59834	128600	727385			

PROJECTED SCHOOL AGE POPULATION : BY AGE, GENDER AND PROVINCE

2009

AGE GROUPS 6 - 14

PROVINCE	Age 6			Age 7			Age 8			Age 9			Age 10			Age 11			Age 12			Age 13			Age 14			TOTAL		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Western	1570	1428	2998	1448	1307	2755	1324	1225	2549	1511	1430	2941	1251	1100	2352	1381	1049	2430	1210	1153	2363	1282	1110	2392	12486	12011	24497			
Gulf	1386	1250	2636	1064	2338	1342	1161	969	2130	1308	993	2300	996	815	1810	1124	959	2093	7015	836	1850	1089	831	1900	10612	15113	25725			
National Capital	6819	7429	14248	6947	6184	13131	5884	6139	12022	6400	6381	12781	4976	5254	10230	5415	5864	10978	5194	5464	10658	5065	5301	10375	52131	52971	105102			
Central	3180	2936	6116	2938	3483	6421	3150	2717	5867	3333	2788	6121	2668	2365	4933	2886	2419	5305	2515	2178	4693	2631	2289	4920	26867	23130	49997			
Melne Bay	3531	3357	6888	3387	6936	3531	3249	6630	3041	2909	5950	3011	2909	5920	3287	2803	6091	2908	2595	5502	2755	2540	5295	29295	29971	59266				
Oro	2507	2307	4814	2342	2093	4435	2105	2002	4107	2344	2051	4395	1802	1725	3526	1187	1062	2144	1974	1651	3625	1831	1704	3526	19251	21145	40397			
Southern Highlands	11748	8093	20442	7438	17801	11894	10118	5312	17430	11685	7988	19653	8194	4382	10576	11487	7675	19162	6611	4844	11455	8061	5566	13628	87153	60778	147931			
Eastern Highlands	6835	5916	11851	6337	6337	12674	5878	3962	9840	5843	4045	9887	3756	2908	6354	5194	3617	8810	4156	2888	7044	4384	2938	7321	48748	34049	82797			
Simbu	2782	2811	5593	2510	2420	4930	2608	2565	5173	2741	2553	5293	1904	1645	3549	2521	2225	4746	1931	1678	3610	1922	1698	3621	21690	19975	41665			
Western Highlands	9353	7244	16602	8428	6302	14730	8642	5733	8544	2841	6670	9511	1953	3865	5818	2586	6806	8592	1981	4247	6228	1971	4718	6691	40525	49024	89560			
Enga	7893	6451	14344	6382	5057	11439	5645	5220	12273	8456	6197	14653	4308	3095	7403	8314	6251	14564	4848	3645	8494	5878	4598	10376	58776	41137	99913			
Morobe	9238	7866	17124	8637	7352	15989	8217	6624	14716	8260	7109	15369	7345	5626	12971	7996	6545	14542	7124	5779	12904	7388	5871	13259	72296	54725	127021			
Midrange	6874	5024	11898	6706	4899	11605	6146	-275	10422	6336	4794	10729	5156	3486	8642	5877	4039	9917	4944	3567	8511	5102	3489	8990	53617	37898	91515			
Sundown	3703	2856	6559	3441	2699	6141	3358	2296	5549	3385	2446	5801	2859	2171	5070	3324	2254	5578	2722	1993	4715	2743	2187	4930	28739	22561	51301			
East Sepik	5145	4948	10093	4949	4773	9722	4454	4135	8649	4776	4306	9082	4232	3981	8213	4869	4260	8829	3989	3864	7853	4093	3861	7954	40802	37837	78629			
Namtu	771	654	1427	787	706	1492	748	518	1320	676	635	1311	631	576	1208	662	607	1269	628	653	1261	703	632	1335	6308	6107	12416			
New Hellen	2210	2261	4471	2094	2261	4356	1961	1817	3838	2086	1902	3988	1651	1586	3237	1933	1763	3606	1707	1686	3393	1686	1708	3393	17300	15045	32345			
East New Britain	5411	5351	10762	5120	5101	10222	4848	4474	9168	4890	4703	9593	4092	3945	8036	4731	4299	9131	3956	4023	7979	4333	3899	8232	42146	112289	154434			
West New Britain	4620	4117	8737	3625	3082	6707	3821	3301	7191	4040	3457	7497	3343	2747	6090	3728	3196	6924	3204	2888	6092	3467	2741	6208	34557	26339	60875			
North Solomons	4252	4097	8349	3913	3026	6939	3827	3574	7394	3666	3389	7055	3497	3189	6683	3358	3035	6393	3250	2942	6192	3158	2581	6058	33073	26988	60061			
K L Murray	1315	1242	2557	1093	1093	2186	1087	887	1955	1126	935	2060	940	804	1744	1082	858	1910	1078	772	1810	1026	825	1851	9945	7417	17362			
PNG Total	60112	57474	118586	58272	77392	154645	83554	79942	156496	89177	77805	166682	66565	57453	124018	83551	71416	154966	66907	59326	126233	70548	61375	131923	746298	706519	1452817			

PROJECT: SCHOOL AGE POPULATION: BY AGE, GENDER AND PROVINCE

AGE GROUPS 6 - 14

PROVINCE	Age 6		Age 7		Age 8		Age 9		Age 10		Age 11		Age 12		Age 13		Age 14		TOTAL							
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F						
Western	1575	1418	1489	1334	1331	1289	1362	1400	1470	1555	1288	1181	1421	1079	2499	1245	1298	1141	2440	12848	12339	25187				
Gulf	1397	1278	1071	2355	1031	2291	1170	2145	999	2317	1004	819	1823	965	2108	1023	1098	816	1914	10697	15345	26041				
National Capital	7154	7840	7350	13848	6785	13272	6172	12667	6751	12465	5219	5589	5680	5886	11566	5449	5313	5618	10951	54686	55810	110495				
Central	3241	3142	2994	6378	3243	5997	3200	2768	2841	6238	2719	2308	2940	2465	5406	2563	2681	2333	5014	27377	23536	50913				
Milne Bay	3605	3453	3462	7085	3605	6875	3377	6425	3547	6773	3075	2656	3357	2865	6222	2969	2813	2596	5409	29910	30636	60547				
Oro	2559	2462	2144	4535	2279	2168	2149	2080	2393	2100	1840	1766	2159	1936	4096	2015	1870	1745	3615	19656	21704	41360				
Southern Highlands	12160	8311	21070	10705	7644	18349	10472	17967	12094	8167	20261	6411	10903	7867	19756	6843	8343	5706	14049	90208	62363	152467				
Eastern Highlands	6910	8046	4562	10998	6407	10945	5943	9928	5907	1069	9976	3797	2614	6411	5251	3638	8889	4202	2906	7107	4432	2955	7887	49284	34294	83574
Simbu	2785	2523	2435	4947	2611	2580	2743	5270	2773	2569	5342	1906	2524	2238	4762	1933	1688	1709	3633	21712	20129	41841				
Western Highlands	9506	7411	6447	15094	5826	6795	15621	2814	3555	8679	2843	6823	2589	6144	8733	1983	3345	4827	6800	41225	50128	91354				
Enga	8193	6666	5224	11849	5859	6105	11964	7321	5193	12713	4472	3197	2669	8630	6457	15086	5033	3765	4749	10851	61010	42488	103498			
Morobe	9350	8145	7500	16335	8406	7158	15363	8278	5251	15201	7514	3739	13252	8180	6676	14857	7288	5895	13183	7558	5988	13546	73959	55841	129890	
Madang	7025	8654	4973	11826	6619	4586	11205	6282	4459	10924	5270	3538	8808	6907	4100	10106	5053	3620	8674	5214	3541	8755	54797	38570	93367	
Sandaun	3788	2954	2753	6274	3415	5945	3328	5670	3412	2498	5027	2925	3401	2269	5699	2788	2033	2230	5037	29400	24081	53482				
East Sepik	5211	5022	4845	9858	4655	4372	4512	4248	4839	4371	9209	4257	4041	3922	8952	4041	3922	3919	8065	41353	38434	79767				
Mamusi	790	671	722	1528	767	652	1419	632	649	1342	647	589	678	621	1299	644	648	646	1367	6466	6253	12719				
New Ireland	2267	2311	2331	4480	2023	4077	2012	3947	2140	1964	4102	1694	1635	3330	1983	1815	3801	1738	3489	1729	1760	17750	15511	33261		
East New Britain	5590	5549	5290	10579	5008	5081	10089	4922	4566	9488	5052	4877	9828	4227	9439	4087	4171	4043	8319	43537	135662	159099				
West New Britain	4810	4777	3972	8398	4202	3908	8110	3970	4198	3592	7789	3473	3873	3321	7194	3329	3081	2848	6450	35884	27366	63249				
North Solomons	4349	4150	4003	8210	4050	3829	7879	3908	3656	7564	3577	3262	6839	3404	6540	3325	3010	2947	6177	35833	27609	63442				
K.L.Murray	1553	1277	1124	2398	1176	1105	1098	2010	1158	961	2119	967	1794	883	1965	1068	794	848	1904	10233	7625	17858				
PNG Total	103809	80670	193478	96124	82333	178457	85762	160512	91506	79498	171003	68266	58940	127206	85739	73248	158987	68628	62966	135352	765799	724524	1490323			

PROJECTED SCHOOL AGE POPULATION: BY AGE, GENDER AND PROVINCE

AGE GROUPS 6 - 14

PROVINCE	Age 6			Age 7			Age 8			Age 9			Age 10			Age 11			Age 12			Age 13			Age 14			TOTAL					
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T			
Western	1620	1511	3129	1693	1531	3224	1500	1368	2868	1402	1295	2696	1600	1511	3111	1325	1163	2488	1462	1109	2571	1281	1218	2499	1136	1173	2309	1320	1276	2596	1320	1267	2586
Gulf	1408	1254	2662	1294	1077	2371	1270	1037	2307	1188	981	2169	1329	1005	2334	1836	1153	2989	1153	971	2124	1031	846	1877	1106	821	1927	1072	1027	2099	1072	1027	2099
National Capital	7504	5215	12719	6816	4776	11592	6805	4718	11523	6471	4511	10982	7043	5142	12185	5881	4136	10017	5959	4228	10187	5716	4117	9833	5574	3943	9517	5245	3737	8982	5245	3737	8982
Central	3302	3191	6493	3448	3051	6499	3363	2806	6169	3271	2821	6092	3461	2895	6356	2771	2352	5122	2996	2512	5508	2251	2251	4502	2732	2277	5009	2732	2277	5009	2732	2277	5009
Milne Bay	3681	3506	7187	3699	3528	7227	3681	3542	7223	3381	3176	6557	3622	3296	6918	3139	2715	5854	3427	2928	6355	3031	2719	5750	2972	2653	5625	2972	2653	5625	2972	2653	5625
Oro	2613	2419	5032	2441	2195	4637	2327	2230	4557	2194	2100	4294	2443	2151	4594	1878	1808	3687	2205	1983	4188	2059	1983	4042	1731	1731	3462	1999	1787	3786	1999	1787	3786
Southern Highlands	12585	9124	21709	11080	7835	18915	11681	7986	19667	10839	7682	18521	12517	8371	20888	6635	4604	11239	12305	8064	20369	7082	5089	12172	8635	5848	14483	93360	63785	157145			
Eastern Highlands	6986	5076	12062	6507	4591	11096	6478	4565	11042	6008	4009	10018	5922	4083	10005	3839	2629	6468	5369	3660	9029	4248	2923	7171	4481	2973	7454	49826	34540	84366			
Simbu	2788	2835	5623	2515	2449	4964	2613	2595	5208	2746	2542	5288	2776	2584	5360	1908	1664	3572	2526	2252	4778	1935	1699	3634	1926	1719	3645	21733	20284	42017			
Western Highlands	8594	6132	14726	8876	6595	15471	9053	6951	16004	8816	6910	15726	8817	6927	15744	5957	4045	10002	7944	5957	13901	5224	3890	9114	6333	4916	11250	63328	47884	111212			
Enga	9668	8211	17879	9039	7650	16689	8599	7301	15900	8468	7396	15864	8644	7396	16040	7686	5854	13540	8368	6810	15178	7456	6013	13469	7732	6108	13840	75660	56980	132640			
Morobe	2181	1776	3957	2044	1647	3691	1964	1625	3589	1826	1485	3311	1826	1485	3311	1826	1485	3311	1826	1485	3311	1826	1485	3311	1826	1485	3311	1826	1485	3311			
Madang	3875	3415	7290	3601	3209	6810	3493	3151	6644	3405	3189	6594	3511	3245	6756	2992	2258	5250	3479	2345	5824	2549	2073	4622	2571	2275	4846	30077	23614	53691			
East Sepik	5279	5092	10371	5078	4917	9995	4715	4437	9152	4571	4312	8883	4901	4436	9337	4343	4101	8444	4689	4388	9077	4093	3981	8074	4200	3978	8178	41870	39041	80911			
Manus	310	287	597	306	283	589	286	267	553	277	256	533	306	283	589	244	223	467	295	274	569	244	223	467	244	223	467	244	223	467			
New Ireland	2236	2054	4290	2205	2004	4209	2076	2117	4193	2064	1995	4059	2196	2022	4218	1738	1686	3424	2035	1874	3909	1797	1792	3589	1774	1815	3589	18211	15992	34203			
East New Britain	5774	5754	11528	5486	5486	10972	5084	4735	9819	5084	4735	9819	5084	4735	9819	4366	4242	8608	5048	4731	9779	4222	4326	8548	4623	4193	8816	44973	418947	163920			
West New Britain	4998	4411	9409	4598	4127	8725	4366	4069	8435	4125	3638	7763	4561	3732	8293	3609	2966	6575	4024	3450	7475	3459	3118	6577	3743	2959	6702	37283	28413	65696			
North Solomons	4449	4256	8705	4304	4095	8399	4143	3917	8060	3998	3740	7738	3837	3547	7383	3659	3337	6996	3514	3176	6690	3402	3079	6481	3305	3015	6319	34611	28244	62855			
K.L.Murray	1793	1313	3106	1311	1155	2466	1210	1136	2346	1130	938	2068	1192	988	2180	995	850	1845	1114	907	2021	1086	872	1958	1086	872	1958	1086	872	1958			
PNG Total	106589	91938	198527	98672	84461	183133	96122	82497	178620	87918	76738	164655	93969	81554	175463	70019	60476	130495	87996	75179	163135	70403	62463	132866	74281	64605	138889	78890	74161	152991			

PAPUA NEW GUINEA
DEPARTMENT OF EDUCATION
WAIGANI

HIGH AND SECONDARY
SCHOOL-AGE
POPULATION PROJECTIONS :

By Province, Year, Gender and Single Age.

1990 - 2014

Corporate Data Branch
March 1997

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HIGH AND SECONDARY
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POPULATION PROJECTIONS :

By Province, Year, Gender and Single Age.

1990 - 2014

Corporate Data Branch
March 1997

Preface

The following population projections are based on the individual growth rates determined by Dr. Martin L. Bakker of the UNFPA/ILO Project based within the Population Planning Unit with the National Planning Office. In his findings published in the document titled "The Provincial Populations Of Papua New Guinea : Profiles Based on 1990 Census Data", Bakker indicated among other things individual provincial growth rates for male and females. The population growth rates used for the projections were derived using the exponential curve formula, taking all other considerations into mind, such as the in and the outmigration, mortality rates etc....

While all the provincial projections were based on the growth rates given by Bakker, there were only two exceptions. These are the Kiunga lake Murray District and the North Solomons Province. For some reasons the Education Department regarded the Western Province and the Kiunga Lake Murray as different and so expects separate data analysis from these two. No growth rates were derived for the Kiunga Lake Murray District by Bakker, therefore the projections noted are based on the growth rates computed for the Western Province which included the Kiunga Lake Murray District.

For the North Solomons Province however, no 1990 National Census figures were available. The offices of the Population Planning Unit and the National Population Census were not in a position to disclose any base-line figures. For some sort of indicative figure, the 1980 Census figures were used but from 1990 and inclusive the projections were based on the 1980 projected data but re-projected at a 2.3% 1990 aggregate growth rate. How accurate this will be leaves a lot to be desired until somebody can arrive at an expert guess or a census is actually carried for the North Solomons Province.

For convenience sake, I have extracted the individual provincial growth rates and have listed them below. Dr. Bakker or the Population Planning Unit still maintains that the national annual growth rates is still 2.3% and it is not for us to comment on how this could be derived. However the individual growth rates for males and females are :-

Province	Male	Female
1. Western	2.9	2.8
2. Gulf	0.8	0.6
3. Central	1.9	1.9
4. National Capital	4.9	5.8
5. Milne Bay	2.1	2.2
6. Oro	2.1	2.4
7. Southern Highlands	3.5	2.5
8. Enga	3.8	3.3
9. Western Highlands	2.6	2.3
10. Simbu	0.1	0.6
11. Eastern Highlands	1.1	0.6
12. Morobe	2.3	2.0
13. Madang	2.2	1.5
14. East Sepik	1.3	1.5
15. Sandaun	2.3	2.0
16. Manus	2.5	2.3
17. New Ireland	2.6	3.1
18. East New Britain	3.3	3.7
19. West New Britain	3.9	3.9

Please refer further queries to the Director - Corporate Data Branch or directly to Dr. Martin Bakker on telephone number : 3288305 or you may write to him on this address : Population Planning Unit, National Planning Office, Vulpindi Haus, Waigani.

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KOIKE, Mike-AL V.
 a/ Director - Corporate Data (MIS & Statistics) Branch

HIGH SCHOOL-AGE POPULATION PROJECTIONS

1990 HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

A G E G R O U P S 13 - 16

PROVINCE	Age 13						Age 14						Age 15						Age 16						TOTAL					
	M		F		T		M		F		T		M		F		T		M		F		T		M		F		T	
Western	703	682	1385	733	657	1390	682	655	1337	610	604	1214	2728	2598	5326															
Gulf	872	746	1618	936	724	1660	917	820	1737	897	799	1696	3622	3089	6711															
National Capital	2093	1872	3965	2041	1819	3860	2152	1918	4070	2256	1993	4249	8542	7602	16144															
Central	1759	1523	3282	1840	1601	3441	1766	1623	3389	1777	1565	3342	7142	6312	13454															
Miine Bay	1959	1716	3675	1856	1680	3536	2008	1829	3837	1941	1707	3648	7764	6932	14696															
Oro	1330	1052	2382	1234	1086	2320	1270	1050	2320	1287	1130	2417	5121	4318	9439															
Southern Highlands	3439	3030	6469	4193	3482	7675	3770	3133	6903	4198	3819	8017	15600	13464	29064															
Eastern Highlands	3376	2578	5954	3561	2622	6183	3448	2716	6164	3776	3350	7126	14161	11266	25427															
Simbu	1895	1498	3393	1886	1516	3402	1810	1472	3282	2059	1982	4041	7650	6468	14118															
Western Highlands	3496	2757	6253	3980	3063	7043	3702	2964	6666	4156	3572	7728	15334	12356	27690															
Enga	2387	1967	4354	2894	2481	5375	2938	2303	5241	3243	2894	6137	11462	9645	21107															
Morobe	4625	3967	8592	4796	4030	8826	4722	3958	8680	4683	4137	8820	18826	16092	34918															
Madang	3270	2688	5958	3374	2629	6003	3224	2579	5803	3068	2838	5906	12936	10734	23670															
Sandaun	1767	1368	3135	1781	1501	3282	1754	1327	3081	1742	1333	3075	7044	5529	12573															
East Sepik	3121	2912	6033	3202	2910	6112	3126	2841	5967	3126	3099	6225	12575	11762	24337															
Manus	393	411	804	440	410	850	449	406	855	431	415	846	1713	1642	3355															
New Ireland	1048	944	1992	1035	956	1991	1108	901	2009	1080	880	1960	4271	3681	7952															
East New Britain	2135	2017	4152	2338	1955	4293	2206	1891	4097	2277	1894	4171	8956	7757	16713															
West New Britain	1549	1396	2945	1676	1325	3001	1601	1321	2922	1689	1373	3062	6515	5415	11930															
North Solomons	2110	1910	4020	2050	1870	3920	1990	1830	3820	1930	1790	3720	8080	7400	15480															
K L Murray	603	457	1060	596	488	1084	567	492	1059	569	496	1065	2335	1933	4268															
TOTAL	43930	37491	81421	46442	38805	85247	45210	38029	83239	46795	41670	88465	182377	155995	338372															

1991 PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

AGE GROUPS 15 - 18

PROVINCE	Age 13						Age 14						Age 15						Age 16						TOTAL					
	M		F		T		M		F		T		M		F		T		M		F		T		M		F		T	
Western	723	701	1424	754	675	1430	702	673	1375	628	621	1249	2807	2671	5478															
Gulf	879	750	1629	963	744	1707	944	843	1787	923	821	1744	3709	3159	6868															
National Capital	2196	1981	4176	2100	1870	3970	2214	1972	4186	2321	2049	4370	8832	7871	16703															
Central	1792	1552	3344	1893	1646	3539	1817	1668	3486	1829	1609	3437	7332	6475	13807															
Milne Bay	2000	1754	3754	1910	1727	3637	2066	1880	3946	1997	1755	3752	7973	7116	15089															
Oro	1358	1077	2435	1270	1116	2386	1307	1079	2386	1324	1162	2486	5259	4435	9694															
Southern Highlands	3559	3106	6665	4315	3579	7894	3879	3221	7100	4320	3926	8246	16073	13832	29905															
Eastern Highlands	3413	2593	6007	3664	2695	6360	3548	2792	6340	3886	3444	7329	14511	11525	26036															
Simbu	1897	1507	3404	1941	1558	3499	1862	1513	3376	2119	2037	4156	7819	6616	14435															
Western Highlands	3587	2820	6407	4095	3149	7244	3809	3047	6856	4277	3672	7949	15768	12688	28456															
Enga	2478	2032	4510	2978	2550	5528	3023	2367	5391	3337	2975	6312	11816	9925	21741															
Morobe	4731	4046	8778	4935	4143	9078	4859	4069	8928	4819	4253	9072	19344	16511	35855															
Madang	3342	2728	6070	3472	2703	6174	3317	2651	5969	3157	2917	6074	13288	11000	24288															
Sandaun	1808	1395	3203	1833	1543	3376	1805	1364	3169	1793	1370	3163	7238	5673	12911															
East Sepik	3162	2956	6117	3295	2991	6286	3217	2921	6137	3217	3186	6402	12890	12053	24943															
Manus	403	420	823	453	421	874	462	417	879	443	427	870	1761	1686	3447															
New Ireland	1075	973	2049	1065	983	2048	1140	926	2066	1111	905	2016	4392	3787	8179															
East New Britain	2205	2092	4297	2406	2010	4416	2270	1944	4214	2343	1947	4290	9224	7992	17217															
West New Britain	1609	1450	3060	1725	1362	3087	1647	1358	3005	1738	1411	3149	6719	5582	12301															
North Solomons	2159	1954	4112	2109	1922	4032	2048	1881	3929	1986	1840	3826	8302	7598	15899															
K L Murray	620	470	1090	613	502	1115	583	506	1089	586	510	1095	2403	1987	4390															
TOTAL	44997	38359	83356	47789	39892	87680	46521	39094	85615	48152	42837	90989	187459	160181	347640															

1992

PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

PROVINCE	AGE GROUPS 15 - 18																	
	Age 13			Age 14			Age 15			Age 16			TOTAL					
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T			
Western	744	721	1465	776	694	1470	722	692	1414	646	638	1284	2889	2746	5634			
Gulf	886	755	1641	991	765	1756	971	867	1838	950	844	1794	3798	3231	7029			
National Capital	2303	2095	4399	2161	1922	4083	2279	2027	4306	2389	2106	4495	9132	8151	17282			
Central	1826	1581	3408	1948	1692	3640	1870	1715	3585	1882	1654	3535	7526	6642	14169			
Milne Bay	2042	1792	3834	1965	1775	3741	2126	1933	4059	2055	1804	3859	8189	7305	15493			
Oro	1386	1103	2490	1307	1148	2454	1345	1110	2454	1363	1194	2557	5401	4555	9955			
Southern Highlands	3684	3183	6867	4440	3680	8119	3992	3311	7303	4445	4036	8481	16561	14210	30770			
Eastern Highlands	3451	2609	6060	3771	2771	6541	3651	2870	6521	3998	3540	7538	14870	11790	26661			
Simbu	1899	1516	3415	1997	1602	3599	1917	1556	3472	2180	2095	4275	7992	6768	14761			
Western Highlands	3680	2885	6565	4214	3237	7451	3920	3132	7052	4401	3775	8175	16215	13029	29244			
Enga	2572	2099	4671	3064	2622	5686	3111	2434	5545	3434	3058	6492	12181	10213	22394			
Morobe	4840	4127	8967	5078	4259	9337	5000	4183	9183	4959	4372	9330	19877	16941	36818			
Madang	3415	2769	6185	3573	2778	6351	3414	2725	6139	3249	2999	6248	13650	11272	24922			
Sandaun	1849	1423	3272	1886	1586	3472	1857	1402	3260	1845	1409	3253	7437	5821	13257			
East Sepik	3203	3000	6203	3390	3075	6466	3310	3002	6312	3310	3275	6585	13213	12353	25566			
Manus	413	430	843	466	433	899	475	429	904	456	439	895	1811	1731	3542			
New Ireland	1103	1003	2107	1096	1010	2106	1173	952	2125	1144	930	2074	4516	3896	8412			
East New Britain	2278	2169	4447	2476	2066	4542	2336	1998	4334	2411	2002	4413	9501	8235	17736			
West New Britain	1672	1507	3179	1775	1400	3175	1695	1396	3091	1788	1451	3239	6930	5754	12685			
North Solomons	2208	1999	4207	2171	1976	4147	2107	1934	4041	2044	1892	3935	8529	7801	16330			
K L Murray	638	483	1121	631	516	1147	600	520	1120	602	524	1127	2472	2043	4515			
TOTAL	46095	39252	85347	49175	41009	90183	47870	40188	88059	49548	44036	93585	192688	164485	357173			

1993 PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

AGE GROUPS 15 - 18

PROVINCE	Age 13						Age 14						Age 15						Age 16						TOTAL							
	M		F		T		M		F		T		M		F		T		M		F		T		M		F		T			
Western	766	741	1507	799	714	1512	743	712	1455	665	656	1321	2972	2822	5795																	
Gulf	893	760	1653	1020	787	1806	999	891	1890	977	868	1845	3889	3305	7194																	
National Capital	2416	2217	4633	2224	1976	4200	2345	2084	4428	2458	2165	4623	9442	8442	17884																	
Central	1861	1611	3473	2005	1739	3744	1924	1763	3687	1936	1700	3636	7726	6814	14540																	
Milne Bay	2085	1832	3917	2022	1825	3847	2188	1987	4175	2115	1854	3969	8410	7498	15908																	
Oro	1416	1130	2545	1345	1180	2524	1384	1141	2524	1402	1228	2630	5546	4678	10224																	
Southern Highlands	3813	3263	7076	4568	3783	8351	4108	3404	7511	4574	4149	8723	17063	14598	31661																	
Eastern Highlands	3489	2625	6113	3880	2848	6728	3757	2951	6707	4114	3639	7753	15239	12063	27303																	
Simbu	1901	1525	3426	2055	1647	3702	1972	1599	3571	2243	2153	4397	8171	6924	15095																	
Western Highlands	3776	2952	6727	4336	3328	7664	4034	3220	7254	4528	3881	8409	16674	13380	30054																	
Enga	2670	2168	4838	3153	2695	5848	3201	2502	5703	3533	3144	6677	12557	10509	23067																	
Morobe	4952	4210	9161	5225	4378	9604	5145	4300	9445	5102	4494	9597	20424	17382	37806																	
Madang	3491	2811	6301	3676	2856	6532	3513	2802	6314	3343	3083	6426	14022	11552	25574																	
Sandaun	1892	1452	3343	1940	1631	3571	1911	1442	3353	1898	1448	3346	7641	5972	13613																	
East Sepik	3244	3045	6289	3489	3161	6650	3406	3086	6492	3406	3367	6773	13545	12659	26204																	
Manus	423	440	863	479	445	925	489	441	930	470	451	920	1861	1777	3639																	
New Ireland	1132	1035	2166	1128	1039	2166	1207	979	2186	1177	956	2133	4643	4008	8651																	
East New Britain	2353	2249	4603	2547	2124	4671	2404	2054	4458	2481	2058	4538	9785	8485	18270																	
West New Britain	1737	1566	3303	1826	1439	3266	1744	1435	3179	1840	1492	3332	7148	5932	13080																	
North Solomons	2259	2045	4304	2234	2032	4265	2168	1988	4156	2103	1945	4047	8764	8009	16773																	
K L Murray	657	496	1153	649	530	1180	618	534	1152	620	539	1159	2544	2100	4644																	
TOTAL	47225	40171	87396	50601	42157	92758	49258	41314	90572	50985	45269	96255	198069	168911	366980																	

1994 PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 13						Age 14						Age 15						Age 16						TOTAL							
	M		F		T		M		F		T		M		F		T		M		F		T		M		F		T			
Western	788	762	1550	822	734	1556	765	731	1496	684	675	1358	3058	2901	5960																	
Gulf	900	764	1664	1049	809	1858	1028	916	1944	1006	892	1898	3983	3381	7364																	
National Capital	2534	2346	4880	2288	2031	4320	2413	2142	4555	2529	2226	4755	9765	8745	18509																	
Central	1897	1642	3539	2063	1788	3851	1980	1813	3792	1992	1748	3740	7932	6990	14922																	
Milne Bay	2129	1872	4001	2081	1876	3957	2251	2043	4294	2176	1906	4083	8637	7697	16334																	
Oro	1445	1157	2602	1383	1213	2596	1424	1173	2596	1443	1262	2705	5696	4804	10500																	
Southern Highlands	3946	3345	7291	4701	3889	8590	4227	3499	7726	4707	4265	8972	17581	14997	32578																	
Eastern Highlands	3527	2640	6167	3992	2928	6921	3866	3033	6899	4233	3741	7975	15619	12343	27962																	
Simbu	1903	1534	3437	2114	1693	3808	2029	1644	3673	2308	2213	4522	8355	7085	15440																	
Western Highlands	3874	3020	6894	4462	3421	7883	4150	3310	7461	4659	3989	8649	17146	13740	30886																	
Enga	2771	2240	5011	3245	2771	6015	3294	2572	5866	3636	3232	6868	12945	10815	23760																	
Morobe	5065	4294	9359	5377	4501	9878	5294	4420	9714	5250	4620	9870	20987	17835	38822																	
Madang	3567	2853	6420	3783	2936	6719	3615	2880	6495	3440	3169	6609	14404	11839	26243																	
Sandaun	1935	1481	3416	1997	1676	3673	1966	1482	3448	1953	1489	3442	7852	6128	13979																	
East Sepik	3286	3091	6377	3590	3250	6840	3505	3173	6678	3505	3461	6966	13886	12974	26860																	
Manus	434	450	884	493	458	951	503	453	957	483	463	947	1914	1825	3739																	
New Ireland	1161	1067	2228	1160	1068	2228	1242	1006	2248	1211	983	2194	4775	4123	8898																	
East New Britain	2431	2332	4764	2621	2183	4805	2473	2112	4585	2553	2115	4668	10078	8743	18821																	
West New Britain	1805	1627	3432	1879	1480	3359	1795	1475	3270	1894	1533	3427	7373	6115	13488																	
North Solomons	2311	2092	4403	2298	2088	4387	2231	2044	4275	2164	1999	4163	9004	8223	17227																	
K L Murray	676	510	1186	668	545	1213	636	549	1185	638	554	1192	2618	2159	4777																	
TOTAL	48387	41117	89505	52068	43337	95405	50687	42470	93157	52464	46537	99001	203606	173462	377068																	

1995 PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

AGE GROUPS 15 18

PROVINCE	Age 13						Age 14						Age 15						Age 16						TOTAL										
	M		F		T		M		F		T		M		F		T		M		F		T		M		F		T						
Western	811	783	1594	846	754	1600	787	752	1539	704	693	1397	3147	2983	6130																				
Gulf	907	769	1676	1080	831	1911	1058	941	1999	1035	917	1952	4080	3459	7539																				
National Capital	2659	2482	5140	2355	2088	4443	2483	2202	4685	2603	2288	4891	10098	9060	19159																				
Central	1933	1673	3606	2123	1838	3961	2037	1863	3901	2050	1797	3847	8143	7171	15314																				
Milne Bay	2174	1913	4087	2141	1929	4070	2317	2100	4416	2239	1960	4199	8870	7902	16772																				
Oro	1476	1184	2660	1424	1247	2670	1465	1205	2671	1485	1297	2782	5849	4934	10783																				
Southern Highlands	4084	3428	7513	4837	3998	8835	4349	3597	7946	4843	4384	9228	18114	15407	33521																				
Eastern Highlands	3566	2656	6222	4108	3010	7118	3978	3118	7096	4356	3846	8202	16008	12631	28639																				
Simbu	1904	1543	3448	2176	1740	3916	2088	1690	3778	2375	2275	4651	8544	7249	15793																				
Western Highlands	3975	3089	7064	4592	3517	8108	4271	3403	7674	4795	4101	8895	17632	14109	31741																				
Enga	2876	2314	5190	3339	2848	6187	3389	2644	6033	3741	3322	7064	13346	11129	24474																				
Morobe	5182	4380	9562	5533	4627	10160	5448	4544	9992	5403	4750	10152	21565	18300	39865																				
Madang	3646	2896	6542	3892	3018	6911	3719	2961	6680	3539	3258	6798	14797	12133	26930																				
Sandaun	1980	1510	3490	2055	1723	3778	2024	1523	3547	2010	1530	3540	8068	6287	14355																				
East Sepik	3329	3137	6466	3694	3341	7035	3606	3262	6868	3606	3558	7164	14236	13297	27533																				
Manus	445	460	905	508	471	978	518	466	984	497	476	974	1967	1874	3841																				
New Ireland	1192	1100	2291	1194	1098	2292	1278	1034	2313	1246	1010	2256	4910	4242	9152																				
East New Britain	2511	2419	4930	2697	2244	4942	2545	2171	4716	2627	2174	4801	10380	9009	19389																				
West New Britain	1876	1690	3566	1934	1521	3455	1847	1517	3364	1949	1576	3525	7605	6304	13909																				
North Solomons	2364	2140	4504	2365	2147	4512	2296	2101	4397	2227	2055	4282	9251	8443	17694																				
K L Murray	696	525	1220	688	560	1248	654	565	1219	656	569	1226	2694	2219	4913																				
TOTAL	49584	42092	91676	53578	44551	98129	52157	43660	95817	53985	47840	101825	209305	178142	387446																				

1996 PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

PROVINCE	A G E G R O U P S																		TOTAL
	Age 13			Age 14			Age 15			Age 16			Age 17			Age 18			
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
Western	835	805	1639	870	775	1646	810	773	1583	724	713	1437	1065	943	2008	10445	9388	19833	
Gulf	915	773	1688	1111	854	1966	1089	968	2056	1065	943	2008	10445	9388	19833	10445	9388	19833	
National Capital	2789	2626	5414	2423	2147	4570	2555	2264	4818	2678	2352	5030	10445	9388	19833	10445	9388	19833	
Central	1969	1705	3674	2184	1890	4074	2096	1915	4012	2110	1847	3957	8360	7357	15717	8360	7357	15717	
Milne Bay	2219	1955	4175	2203	1983	4186	2384	2159	4542	2304	2015	4319	9110	8111	17222	9110	8111	17222	
Oro	1507	1213	2720	1465	1282	2747	1508	1239	2747	1528	1334	2861	6007	5067	11074	6007	5067	11074	
Southern Highlands	4227	3514	7741	4978	4109	9087	4475	3698	8173	4984	4507	9491	18664	15828	34492	18664	15828	34492	
Eastern Highlands	3605	2672	6277	4227	3095	7322	4093	3205	7299	4483	3954	8436	16408	12926	29334	16408	12926	29334	
Simbu	1906	1553	3459	2239	1789	4028	2149	1737	3886	2444	2339	4783	8738	7418	16157	8738	7418	16157	
Western Highlands	4078	3160	7238	4725	3615	8340	4395	3498	7893	4934	4216	9149	18131	14489	32620	18131	14489	32620	
Enga	2986	2390	5376	3436	2928	6364	3488	2718	6206	3850	3416	7265	13759	11452	25210	13759	11452	25210	
Morobe	5301	4467	9769	5693	4756	10450	5606	4671	10277	5559	4883	10442	22159	18778	40937	22159	18778	40937	
Madang	3726	2939	6665	4005	3103	7108	3827	3044	6871	3642	3349	6991	15201	12435	27636	15201	12435	27636	
Sandaun	2025	1541	3566	2114	1771	3886	2082	1566	3648	2068	1573	3641	8290	6451	14741	8290	6451	14741	
East Sepik	3372	3184	6557	3801	3434	7236	3711	3353	7064	3711	3657	7368	14595	13629	28224	14595	13629	28224	
Manus	456	471	927	522	484	1006	533	479	1012	512	490	1001	2023	1924	3947	2023	1924	3947	
New Ireland	1222	1134	2356	1229	1128	2357	1315	1063	2379	1282	1039	2321	5049	4364	9413	5049	4364	9413	
East New Britain	2594	2508	5102	2775	2307	5083	2619	2232	4851	2703	2235	4938	10691	9283	19974	10691	9283	19974	
West New Britain	1949	1756	3705	1990	1564	3553	1901	1559	3460	2005	1620	3625	7844	6499	14343	7844	6499	14343	
North Solomons	2418	2189	4608	2434	2207	4641	2362	2160	4522	2291	2113	4404	9506	8669	18174	9506	8669	18174	
K L Murray	716	539	1255	708	576	1283	673	581	1254	675	585	1261	2772	2281	5053	2772	2281	5053	
TOTAL	50816	43095	93911	55132	45798	100930	53669	44882	98552	55551	49179	104730	215168	182955	398123	215168	182955	398123	

1997 PROJECTED HIGH SCHOOL AGE POPULATION: BY AGE, GENDER AND YEAR

PROVINCE	AGE GROUPS												TOTAL		
	Age 13			Age 14			Age 15			Age 16					
	M	F	T	M	F	T	M	F	T	M	F	T			
Western	859	827	1686	895	797	1692	833	795	1628	745	733	1478	3332	3152	6484
Gulf	922	778	1700	1143	878	2022	1120	995	2115	1096	969	2065	4281	3621	7902
National Capital	2925	2778	5703	2493	2207	4700	2629	2327	4956	2756	2418	5174	10803	9730	20533
Central	2007	1737	3744	2248	1942	4190	2157	1969	4126	2171	1899	4069	8582	7548	16130
Milne Bay	2266	1998	4264	2267	2038	4305	2453	2219	4672	2371	2071	4442	9357	8327	17683
Oro	1538	1242	2780	1507	1318	2825	1551	1274	2825	1572	1371	2943	6169	5204	11374
Southern Highlands	4375	3602	7977	5122	4225	9346	4605	3801	8406	5128	4633	9761	19231	16261	35491
Eastern Highlands	3645	2688	6333	4350	3181	7531	4212	3295	7507	4613	4064	8677	16819	13229	30048
Simbu	1908	1562	3470	2304	1839	4143	2211	1786	3997	2515	2405	4920	8938	7592	16530
Western Highlands	4184	3233	7417	4862	3716	8578	4522	3596	8118	5077	4334	9410	18645	14879	33523
Enga	3099	2469	5568	3535	3010	6545	3589	2794	6383	3961	3511	7473	14185	11784	25969
Morobe	5423	4557	9980	5859	4889	10748	5768	4802	10570	5720	5019	10740	22770	19268	42038
Madang	3808	2983	6791	4121	3190	7311	3938	3129	7067	3748	3443	7191	15615	12745	28361
Sandaun	2072	1571	3643	2176	1821	3997	2143	1610	3753	2128	1617	3745	8518	6620	15138
East Sepik	3416	3232	6648	3911	3531	7442	3819	3447	7265	3819	3760	7578	14965	13969	28934
Manus	467	482	949	537	497	1035	548	493	1041	526	504	1030	2080	1975	4055
New Ireland	1254	1169	2423	1264	1160	2424	1353	1093	2447	1319	1068	2387	5191	4490	9681
East New Britain	2680	2601	5281	2856	2372	5228	2695	2294	4989	2781	2298	5079	11012	9565	20577
West New Britain	2025	1825	3849	2047	1608	3655	1956	1603	3558	2063	1666	3729	8091	6701	14792
North Solomons	2474	2240	4714	2504	2269	4773	2431	2220	4651	2358	2172	4529	9767	8900	18667
K.L. Murray	737	554	1291	728	592	1320	693	597	1290	695	602	1297	2852	2345	5198
TOTAL	52084	44129	96213	56731	47080	103811	55226	46139	101365	57162	50556	107718	221203	187904	409107

1998 PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

PROVINCE	AGE GROUPS 15 - 18																	
	Age 13			Age 14			Age 15			Age 16			TOTAL					
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T			
Western	884	851	1734	921	819	1741	857	817	1674	767	753	1520	3429	3240	6669			
Gulf	929	783	1712	1177	903	2080	1153	1023	2175	1127	997	2124	4386	3705	8091			
National Capital	3069	2939	6008	2565	2269	4834	2705	2392	5097	2836	2486	5321	11175	10086	21261			
Central	2045	1770	3815	2313	1997	4310	2220	2024	4244	2234	1952	4186	8811	7743	16555			
Milne Bay	2313	2042	4356	2333	2095	4428	2524	2281	4805	2440	2129	4569	9610	8548	18158			
Oro	1571	1272	2842	1551	1354	2906	1596	1310	2906	1618	1409	3027	6336	5345	11681			
Southern Highlands	4529	3692	8220	5270	4343	9613	4739	3908	8646	5277	4763	10040	19814	16705	36520			
Eastern Highlands	3685	2704	6389	4476	3270	7746	4334	3387	7721	4746	4178	8925	17241	13540	30781			
Simbu	1910	1571	3482	2371	1891	4261	2275	1836	4111	2588	2472	5060	9144	7770	16914			
Western Highlands	4293	3307	7600	5003	3820	8823	4653	3697	8350	5224	4455	9679	19173	15279	34452			
Enga	3217	2550	5767	3638	3094	6732	3693	2872	6565	4076	3609	7686	14624	12127	26750			
Morobe	5548	4648	10196	6028	5026	11055	5935	4937	10872	5886	5160	11046	23398	19771	43168			
Madang	3892	3028	6920	4241	3279	7520	4052	3217	7269	3856	3540	7396	16042	13063	29105			
Sandaun	2120	1603	3722	2239	1872	4111	2205	1655	3860	2190	1663	3852	8753	6793	15545			
East Sepik	3461	3280	6741	4025	3629	7654	3929	3543	7473	3929	3865	7764	15344	14318	29662			
Mianus	479	493	972	553	511	1064	564	506	1071	542	518	1059	2138	2028	4166			
New Ireland	1287	1205	2492	1301	1192	2493	1393	1124	2516	1358	1098	2455	5338	4619	9957			
East New Britain	2768	2697	5466	2939	2438	5377	2773	2359	5131	2862	2362	5224	11342	9856	21198			
West New Britain	2104	1896	4000	2107	1653	3759	2012	1648	3660	2123	1712	3835	8346	6908	15254			
North Solomons	2531	2291	4822	2577	2332	4909	2501	2282	4784	2426	2233	4658	10035	9138	19173			
K L Murray	758	570	1328	749	609	1358	713	614	1326	715	619	1334	2935	2411	5346			
TOTAL	53390	45193	98584	58376	48399	106775	56827	47431	104258	58820	51972	110792	227413	192595	420408			

1999 PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

AGE GROUPS 15 - 18

PROVINCE	Age 13						Age 14						Age 15						Age 16						TOTAL								
	M		F		T		M		F		T		M		F		T		M		F		T		M		F		T				
Western	909	874	1784	948	842	1790	882	840	1722	789	774	1563	3528	3331	6859																		
Gulf	937	787	1724	1211	928	2139	1186	1051	2237	1160	1024	2185	4494	3791	8285																		
National Capital	3219	3109	6329	2640	2332	4972	2783	2459	5243	2918	2555	5473	11560	10456	22017																		
Central	2084	1804	3888	2380	2053	4433	2284	2081	4365	2298	2007	4305	9046	7944	16990																		
Milne Bay	2362	2087	4449	2401	2154	4555	2597	2345	4942	2511	2189	4699	9870	8775	18645																		
Oro	1604	1302	2906	1596	1392	2988	1643	1346	2989	1665	1449	3113	6507	5490	11997																		
Southern Highlands	4687	3784	8471	5423	4464	9888	4876	4017	8893	5430	4897	10326	20416	17162	37578																		
Eastern Highlands	3725	2721	6446	4606	3362	7968	4460	3482	7942	4884	4295	9179	17675	13860	31535																		
Simbu	1912	1581	3493	2439	1944	4383	2341	1887	4228	2663	2541	5204	9356	7953	17309																		
Western Highlands	4405	3383	7788	5148	3927	9075	4788	3800	8589	5375	4580	9955	19716	15690	35406																		
Erga	3339	2635	5974	3743	3181	6924	3800	2953	6753	4195	3711	7905	15077	12479	27556																		
Morobe	5675	4741	10416	6203	5167	11370	6108	5075	11182	6057	5304	11361	24043	20287	44330																		
Madang	3977	3073	7051	4364	3371	7735	4170	3307	7477	3968	3639	7607	16480	13390	29869																		
Sandaun	2168	1635	3803	2304	1925	4228	2269	1701	3970	2253	1709	3962	8994	6970	15964																		
East Sepik	3506	3330	6835	4142	3731	7873	4043	3643	7686	4043	3973	8017	15734	14677	30410																		
Manus	491	504	995	569	526	1095	581	521	1101	557	532	1090	2198	2083	4281																		
New Ireland	1320	1243	2563	1339	1226	2564	1433	1155	2588	1397	1128	2525	5489	4752	10241																		
East New Britain	2860	2797	5657	3024	2507	5531	2853	2425	5278	2945	2428	5373	11682	10157	21839																		
West New Britain	2186	1970	4156	2168	1699	3867	2071	1694	3764	2185	1760	3945	8609	7123	15732																		
North Solomons	2589	2344	4933	2652	2398	5049	2574	2346	4920	2496	2295	4791	10311	9383	19694																		
K L Murray	780	586	1366	771	626	1397	733	631	1364	736	636	1372	3020	2478	5499																		
TOTAL	54735	46290	101025	60069	49754	109823	58475	48759	107234	60525	53427	113953	233805	198230	432034																		

2000 PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

AGE GROUPS 15 - 18

PROVINCE	Age 13						Age 14						Age 15						Age 16						TOTAL									
	M		F		T		M		F		T		M		F		T		M		F		T		M		F		T					
Western	936	899	1835	976	866	1842	908	863	1771	812	796	1608	3631	3424	7055																			
Gulf	944	792	1736	1246	954	2200	1220	1081	2301	1194	1053	2247	4604	3880	8485																			
National Capital	3377	3290	6667	2716	2398	5114	2864	2528	5392	3003	2627	5629	11960	10842	22802																			
Central	2123	1838	3962	2449	2110	4559	2350	2139	4490	2365	2063	4428	9288	8151	17438																			
Milne Bay	2412	2133	4545	2470	2214	4685	2672	2411	5083	2583	2250	4833	10138	9008	19146																			
Oro	1637	1334	2971	1642	1431	3074	1690	1384	3074	1713	1489	3202	6683	5638	12321																			
Southern Highlands	4851	3879	8730	5581	4589	10170	5018	4129	9147	5587	5034	10621	21036	17631	38668																			
Eastern Highlands	3766	2737	6503	4739	3456	8195	4589	3580	8169	5026	4415	9441	18120	14188	32308																			
Simbu	1914	1590	3504	2510	1998	4508	2409	1940	4349	2740	2612	5353	9574	8141	17715																			
Western Highlands	4519	3461	7980	5297	4037	9334	4927	3907	8834	5531	4708	10239	20275	16113	36387																			
Enga	3466	2721	6187	3852	3270	7122	3910	3035	6946	4316	3814	8131	15544	12841	28386																			
Morobe	5806	4836	10642	6383	5312	11695	6285	5217	11501	6233	5453	11685	24706	20817	45523																			
Madang	4065	3120	7184	4491	3465	7956	4291	3399	7690	4083	3741	7824	16930	13725	30654																			
Sandaun	2218	1668	3886	2370	1978	4349	2334	1749	4083	2318	1757	4075	9241	7152	16393																			
East Sepik	3551	3379	6931	4262	3836	8097	4160	3745	7905	4160	4085	8245	16134	15044	31178																			
Manus	503	516	1019	586	540	1126	598	535	1133	574	547	1121	2260	2138	4398																			
New Ireland	1355	1281	2636	1378	1260	2638	1475	1188	2662	1437	1160	2597	5644	4889	10533																			
East New Britain	2954	2901	5855	3112	2577	5688	2936	2492	5428	3031	2496	5527	12032	10466	22498																			
West New Britain	2271	2047	4318	2231	1746	3977	2131	1741	3872	2248	1810	4058	8880	7344	16224																			
North Solomons	2649	2398	5046	2728	2465	5193	2649	2412	5061	2569	2359	4928	10594	9634	20228																			
K.L. Murray	803	602	1405	793	643	1436	755	648	1403	757	654	1411	3108	2548	5655																			
TOTAL	56120	47421	103540	61811	51147	112958	60171	50124	110295	62281	54923	117204	240382	203615	443997																			

2001

PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

PROVINCE	AGE GROUPS 15 - 18												TOTAL		
	Age 13			Age 14			Age 15			Age 16					
	M	F	T	M	F	T	M	F	T	M	F	T			
Western	963	924	1887	1004	890	1894	934	887	1822	835	818	1654	3736	3520	7256
Gulf	952	797	1749	1282	981	2263	1256	1111	2367	1228	1083	2311	4718	3971	8689
National Capital	3542	3481	7023	2795	2465	5260	2947	2599	5546	3090	2700	5790	12374	11244	23619
Central	2164	1873	4037	2520	2169	4689	2419	2199	4618	2434	2121	4554	9536	8362	17898
Milne Bay	2462	2180	4642	2542	2276	4818	2750	2478	5228	2658	2313	4971	10412	9248	19660
Oro	1672	1366	3037	1690	1471	3161	1739	1423	3162	1763	1531	3294	6863	5791	12654
Southern Highlands	5021	3976	8996	5742	4718	10460	5163	4245	9408	5749	5175	10924	21676	18113	39789
Eastern Highlands	3808	2753	6561	4877	3553	8430	4722	3680	8402	5171	4539	9710	18578	14525	33103
Simbu	1916	1600	3516	2583	2054	4637	2479	1994	4473	2820	2686	5505	9798	8334	18132
Western Highlands	4637	3541	8177	5451	4150	9601	5070	4016	9086	5692	4840	10532	20849	16547	37396
Enga	3598	2811	6409	3963	3362	7325	4024	3120	7144	4441	3921	8363	16026	13215	29241
Morobe	5939	4932	10872	6568	5460	12029	6467	5363	11830	6413	5605	12019	25388	21361	46749
Madang	4154	3166	7321	4621	3562	8183	4415	3494	7910	4202	3845	8047	17392	14068	31460
Sandaun	2269	1701	3970	2439	2034	4473	2402	1798	4200	2386	1806	4192	9496	7339	16835
East Sepik	3597	3430	7028	4385	3943	8328	4281	3849	8131	4281	4199	8480	16545	15422	31966
Manus	516	528	1043	603	556	1158	615	550	1165	590	562	1153	2323	2196	4519
New Ireland	1390	1321	2711	1417	1295	2713	1517	1221	2738	1479	1192	2671	5804	5029	10833
East New Britain	3051	3008	6059	3202	2649	5851	3021	2562	5583	3118	2566	5685	12393	10785	23178
West New Britain	2360	2126	4486	2295	1795	4091	2193	1790	3982	2313	1860	4173	9161	7572	16733
North Solomons	2710	2453	5162	2808	2534	5341	2725	2480	5205	2643	2425	5069	10886	9892	20777
K L Murray	826	619	1445	816	661	1477	777	667	1443	779	672	1451	3198	2619	5817
TOTAL	57546	48586	106132	63603	52579	116182	61916	51528	113444	64087	56461	120548	247152	209153	456305

PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

PROVINCE	AGE GROUPS												TOTAL		
	Age 13			Age 14			Age 15			Age 16					
	M	F	T	M	F	T	M	F	T	M	F	T			
Western	991	950	1941	1033	915	1948	961	912	1873	860	841	1701	3844	3619	7463
Gulf	959	802	1761	1319	1008	2328	1292	1142	2434	1264	1113	2377	4835	4065	8900
National Capital	3716	3682	7398	2876	2534	5410	3033	2672	5704	3179	2776	5955	12804	11664	24468
Central	2205	1909	4114	2593	2230	4823	2489	2261	4749	2504	2180	4684	9791	8579	18370
Milne Bay	2514	2228	4742	2616	2340	4956	2830	2548	5377	2735	2378	5113	10695	9493	20168
Oro	1707	1398	3105	1739	1513	3252	1790	1463	3252	1814	1574	3388	7049	5948	12997
Southern Highlands	5197	4075	9272	5909	4850	10759	5313	4364	9677	5916	5319	11235	22334	18608	40943
Eastern Highlands	3850	2770	6619	5018	3652	8670	4859	3783	8642	5321	4666	9987	19048	14871	33920
Simbu	1918	1609	3527	2658	2112	4769	2551	2050	4601	2902	2761	5662	10028	8532	18560
Western Highlands	4757	3622	8379	5609	4266	9875	5217	4129	9346	5857	4975	10832	21440	16992	38432
Enga	3734	2904	6638	4078	3456	7534	4140	3208	7348	4570	4031	8601	16523	13599	30122
Morobe	6076	5031	11107	6759	5613	12372	6654	5513	12167	6599	5762	12362	26089	21920	48009
Madang	4246	3214	7460	4755	3662	8417	4543	3592	8136	4324	3953	8277	17867	14421	32289
Sandaun	2321	1735	4056	2510	2091	4601	2472	1848	4320	2455	1857	4312	9758	7531	17289
East Sepik	3644	3482	7126	4512	4053	8566	4405	3957	8362	4405	4317	8722	16967	15809	32776
Manus	529	540	1068	620	571	1191	633	566	1198	607	578	1185	2389	2255	4643
New Ireland	1426	1362	2788	1459	1332	2790	1561	1255	2816	1522	1226	2748	5968	5174	11142
East New Britain	3152	3119	6271	3295	2723	6018	3109	2634	5743	3209	2638	5847	12765	11114	23879
West New Britain	2452	2209	4661	2362	1846	4207	2256	1840	4096	2380	1912	4293	9450	7807	17257
North Solomons	2772	2509	5281	2889	2605	5494	2804	2549	5353	2720	2493	5213	11165	10156	21341
K.L Murray	850	637	1486	840	680	1520	799	685	1484	802	691	1493	3291	2692	5983
TOTAL	59014	49787	108802	65448	54051	119499	63712	52970	116682	65945	58042	123987	254119	214850	468870

2003 PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

AGE GROUPS 15 - 18

PROVINCE	Age 13						Age 14						Age 15						Age 16						TOTAL					
	M		F		T		M		F		T		M		F		T		M		F		T		M		F		T	
Western	1019	977	1996	1063	941	2004	989	938	1927	885	865	1749	3956	3720	7676															
Gulf	967	806	1774	1357	1037	2394	1330	1174	2504	1301	1144	2445	4955	4161	9116															
National Capital	3898	3896	7794	2960	2605	5564	3121	2746	5867	3271	2854	6125	13250	12101	25351															
Central	2247	1945	4192	2668	2292	4961	2561	2324	4885	2577	2241	4818	10053	8903	18855															
Milne Bay	2567	2277	4844	2691	2406	5097	2912	2619	5531	2815	2444	5259	10985	9746	20730															
Oro	1743	1432	3174	1789	1555	3344	1842	1503	3345	1866	1618	3484	7240	6108	13348															
Southern Highlands	5378	4177	9555	6080	4986	11066	5467	4486	9953	6088	5468	11556	23013	19117	42130															
Eastern Highlands	3892	2786	6678	5164	3754	8918	5000	3889	8889	5476	4797	10272	19531	15227	34758															
Simbu	1920	1619	3539	2735	2171	4906	2625	2108	4732	2986	2838	5824	10265	8736	19001															
Western Highlands	4881	3705	8586	5771	4386	10157	5368	4244	9612	6027	5115	11141	22047	17450	39497															
Enga	3876	3000	6876	4197	3553	7749	4260	3298	7558	4703	4144	8847	17036	13994	31030															
Morobe	6216	5132	11348	6955	5771	12725	6847	5667	12515	6791	5924	12715	26809	22493	49302															
Madang	4339	3262	7601	4893	3764	8657	4675	3693	8368	4449	4064	8513	18356	14783	33139															
Sandaun	2375	1770	4144	2583	2149	4732	2543	1900	4444	2526	1909	4435	10027	7728	17755															
East Sepik	3692	3534	7225	4643	4167	8810	4533	4068	8601	4533	4437	8970	17401	16206	33607															
Manus	542	552	1094	636	587	1225	651	581	1232	625	594	1219	2456	2315	4771															
New Ireland	1463	1404	2867	1501	1369	2870	1607	1290	2897	1566	1260	2826	6137	5323	11460															
East New Britain	3256	3235	6491	3390	2799	6190	3199	2708	5907	3302	2712	6014	13147	11454	24601															
West New Britain	2547	2296	4843	2430	1897	4328	2322	1892	4213	2449	1966	4415	9748	8050	17799															
North Solomons	2836	2567	5403	2973	2678	5650	2886	2620	5506	2799	2563	5362	11493	10428	21921															
K L Murray	874	654	1529	864	699	1563	822	704	1527	825	710	1535	3386	2768	6154															
TOTAL	60527	51026	111553	67346	55565	122910	65559	54453	120013	67858	59667	127525	261290	220711	482001															

2004 PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

PROVINCE	AGE GROUPS 15 - 18												TOTAL		
	Age 13			Age 14			Age 15			Age 16					
	M	F	T	M	F	T	M	F	T	M	F	T			
Western	1049	1004	2053	1094	967	2061	1018	964	1982	910	889	1799	4071	3824	7895
Gulf	975	811	1786	1397	1066	2462	1368	1207	2575	1338	1176	2515	5078	4260	9338
National Capital	4089	4122	8211	3045	2678	5723	3211	2823	6034	3366	2934	6300	13712	12556	26268
Central	2289	1982	4271	2746	2357	5102	2635	2389	5024	2652	2304	4955	10322	9031	19353
Milne Bay	2621	2327	4948	2769	2473	5242	2996	2692	5689	2896	2513	5409	11283	10005	21288
Oro	1779	1466	3245	1841	1599	3440	1895	1546	3441	1920	1663	3584	7436	6274	13710
Southern Highlands	5567	4281	9848	6257	5125	11382	5625	4612	10237	6264	5622	11886	23713	19640	43353
Eastern Highlands	3935	2803	6738	5314	3860	9173	5145	3998	9143	5634	4931	10566	20028	15592	35620
Simbu	1922	1629	3551	2814	2232	5046	2701	2167	4868	3072	2917	5990	10509	8945	19454
Western Highlands	5008	3790	8798	5939	4509	10447	5524	4363	9887	6201	5258	11459	22672	17920	40592
Enga	4024	3099	7123	4318	3652	7970	4384	3390	7774	4839	4260	9099	17565	14401	31966
Morobe	6359	5234	11593	7156	5932	13088	7046	5826	12872	6988	6090	13077	27549	23082	50631
Madang	4435	3311	7746	5035	3870	8904	4811	3796	8607	4578	4177	8755	18858	15155	34012
Sandaun	2429	1805	4234	2658	2209	4867	2617	1953	4571	2599	1962	4561	10304	7930	18233
East Sepik	3740	3587	7326	4778	4283	9061	4664	4182	8846	4664	4562	9226	17846	16614	34460
Manus	555	565	1120	657	604	1260	670	598	1268	643	611	1254	2525	2377	4902
New Ireland	1501	1447	2949	1544	1407	2952	1653	1326	2980	1612	1295	2907	6310	5476	11787
East New Britain	3364	3354	6718	3489	2878	6366	3292	2784	6075	3398	2788	6186	13542	11804	25345
West New Britain	2646	2385	5032	2501	1950	4451	2389	1944	4333	2520	2021	4541	10057	8301	18358
North Solomons	2901	2626	5527	3059	2753	5812	2969	2694	5663	2880	2635	5515	11809	10707	22516
K L Murray	900	673	1572	889	718	1608	846	724	1570	849	730	1579	3484	2845	6330
TOTAL	62086	52303	114389	69299	57120	126419	67461	55978	123439	69826	61338	131163	268671	226739	495411

2005 PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

PROVINCE	A G E G R O U P S 15 - 18												TOTAL		
	Age 13			Age 14			Age 15			Age 16					
	M	F	T	M	F	T	M	F	T	M	F	T			
Western	1079	1032	2111	1125	994	2120	1047	991	2038	937	914	1851	4189	3931	8120
Gulf	983	816	1799	1437	1096	2533	1408	1241	2649	1377	1209	2586	5205	4361	9567
National Capital	4289	4361	8650	3134	2753	5886	3304	2902	6207	3464	3016	6480	14191	13032	27223
Central	2333	2020	4353	2825	2423	5248	2712	2456	5167	2728	2368	5097	10598	9267	19865
Milne Bay	2676	2378	5054	2850	2542	5392	3083	2768	5851	2980	2583	5563	11589	10271	21860
Oro	1817	1501	3318	1895	1643	3538	1950	1589	3539	1976	1710	3686	7637	6444	14081
Southern Highlands	5762	4388	10150	6438	5269	11707	5789	4741	10529	6446	5779	12225	24434	20177	44611
Eastern Highlands	3978	2820	6798	5468	3968	9435	5294	4110	9404	5798	5069	10867	20538	15967	36504
Eastern Highlands	1924	1639	3562	2896	2294	5190	2779	2227	5007	3161	2999	6161	10760	9159	19919
Simbu	5138	3878	9016	6111	4635	10746	5684	4485	10169	6381	5405	11786	23314	18403	41717
Western Highlands	4177	3201	7378	4444	3754	8198	4511	3485	7996	4979	4379	9359	18111	14820	32930
Enga	6505	5339	11844	7364	6098	13462	7250	5989	13240	7190	6260	13451	28310	23687	51996
Morobe	4532	3361	7893	5181	3978	9159	4950	3903	8853	4711	4294	9005	19374	15536	34910
Madang	2485	1841	4326	2735	2271	5006	2693	2008	4701	2675	2017	4692	10588	8138	18725
Sandaun	3788	3641	7429	4916	4403	9320	4800	4299	9099	4800	4689	9489	18304	17033	36337
East Sepik	569	578	1147	676	620	1296	689	614	1304	662	628	1290	2596	2441	5037
Manus	1540	1492	3032	1589	1447	3036	1701	1363	3065	1658	1332	2990	6489	5634	12123
New Ireland	3475	3478	6953	3590	2958	6548	3387	2861	6249	3496	2866	6362	13948	12164	26112
East New Britain	2750	2478	5228	2573	2005	4578	2458	1999	4457	2593	2078	4671	10375	8560	18934
West New Britain	2968	2686	5654	3148	2830	5977	3056	2769	5825	2963	2709	5672	12134	10994	23128
North Solomons	926	692	1617	915	738	1654	871	744	1615	874	751	1624	3585	2925	6510
K L Murray	63692	53621	117313	71309	58720	130028	69417	57546	126962	71851	63055	134906	276268	232941	509209
TOTAL															

2006

PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

PROVINCE	AGE GROUPS																		TOTAL						
	Age 13						Age 14						Age 15							Age 16					
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T							
Western	1111	1061	2172	1158	1022	2180	1078	1019	2096	964	940	1903	2096	2724	4820	2096	2724	4820	2096	2724	4820	4310	4041	8352	
Gulf	991	821	1812	1479	1126	2605	1449	1276	2724	1417	1243	2660	2724	3384	6108	2724	3384	6108	2724	3384	6108	5335	4466	9801	
National Capital	4500	4614	9114	3225	2830	6054	3400	2984	6384	3564	3100	6665	6384	5315	11699	6384	5315	11699	6384	5315	11699	14689	13527	28216	
Central	2377	2058	4435	2907	2490	5398	2790	2525	5315	2808	2434	5242	5315	4611	9926	5315	4611	9926	5315	4611	9926	10882	9508	20390	
Milne Bay	2732	2431	5162	2932	2613	5546	3173	2845	6018	3067	2655	5722	6018	5150	11177	6018	5150	11177	6018	5150	11177	11903	10545	22448	
Oro	1855	1537	3392	1950	1689	3639	2007	1633	3640	2033	1758	3791	3640	3117	6757	3640	3117	6757	3640	3117	6757	7844	6618	14462	
Southern Highlands	5963	4498	10461	6625	5416	12041	5956	4874	10830	6633	5941	12573	10830	9673	20503	10830	9673	20503	10830	9673	20503	25177	20729	45906	
Eastern Highlands	4022	2837	6859	5626	4079	9705	5448	4225	9673	5966	5211	11177	9673	8338	18011	9673	8338	18011	9673	8338	18011	21062	16352	37413	
Simbu	1926	1648	3574	2980	2358	5338	2860	2290	5150	3253	3083	6336	5150	4611	9761	5150	4611	9761	5150	4611	9761	11018	9380	20398	
Western Highlands	5271	3967	9238	6288	4765	11053	5849	4611	10460	6566	5556	12123	10460	8224	18684	10460	8224	18684	10460	8224	18684	23975	18899	42874	
Erga	4335	3307	7642	4572	3859	8432	4642	3582	8224	5124	4502	9626	8224	7399	15623	8224	7399	15623	8224	7399	15623	18673	15250	33924	
Morobe	6655	5446	12100	7577	6269	13846	7461	6157	13618	7399	6435	13834	13618	12041	25659	13618	12041	25659	13618	12041	25659	29092	24307	53399	
Madang	4632	3411	8043	5331	4090	9420	5094	4012	9106	4847	4415	9262	9106	8338	17444	9106	8338	17444	9106	8338	17444	19904	15927	35831	
Sandaun	2542	1878	4420	2814	2335	5149	2771	2064	4835	2752	2074	4826	4835	4199	9034	4835	4199	9034	4835	4199	9034	10880	8351	19231	
East Sepik	3837	3695	7533	5059	4527	9586	4939	4419	9358	4939	4419	9358	9358	8338	17696	9358	8338	17696	9358	8338	17696	18774	17462	36236	
Manus	583	591	1175	695	638	1333	709	632	1341	681	646	1327	1341	1175	2516	1341	1175	2516	1341	1175	2516	2669	2506	5175	
New Ireland	1580	1539	3119	1635	1487	3122	1751	1402	3152	1706	1369	3075	3152	2724	5876	3152	2724	5876	3152	2724	5876	6672	5796	12468	
East New Britain	3589	3607	7196	3694	3041	6735	3485	2942	6427	3598	2946	6544	6427	5546	11973	6427	5546	11973	6427	5546	11973	14366	12536	26902	
West New Britain	2857	2575	5432	2648	2061	4709	2530	2055	4584	2669	2136	4804	4584	3991	8575	4584	3991	8575	4584	3991	8575	10703	8827	19530	
North Solomons	3036	2748	5784	3239	2909	6148	3144	2847	5991	3049	2784	5834	5991	5150	11141	5991	5150	11141	5991	5150	11141	12468	11288	23757	
K L Murray	953	711	1664	942	759	1701	896	765	1661	899	772	1671	1661	1430	3091	1661	1430	3091	1661	1430	3091	3689	3007	6696	
TOTAL	65347	54980	120327	73376	60364	133740	71430	59157	130587	73934	64821	138755	130587	113058	243645	130587	113058	243645	130587	113058	243645	284087	239322	523409	

2007 PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

PROVINCE	AGE GROUPS												TOTAL		
	Age 13			Age 14			Age 15			Age 16					
	M	F	T	M	F	T	M	F	T	M	F	T			
Western	1143	1091	2234	1192	1051	2242	1109	1047	2156	992	966	1958	4435	4155	8590
Gulf	998	826	1824	1522	1158	2679	1491	1311	2802	1458	1278	2736	5469	4573	10042
National Capital	4720	4882	9602	3318	2909	6227	3499	3067	6566	3668	3187	6855	15205	14045	29249
Central	2422	2097	4520	2991	2560	5552	2871	2595	5467	2889	2503	5392	11174	9756	20929
Milne Bay	2789	2484	5273	3017	2687	5704	3265	2925	6189	3156	2730	5885	12227	10825	23052
Oro	1894	1574	3468	2006	1737	3743	2065	1679	3744	2092	1807	3899	8057	6797	14854
Southern Highlands	6172	4611	10782	6817	5568	12385	6129	5010	11139	6825	6107	12932	25943	21296	47239
Eastern Highlands	4066	2854	6920	5789	4193	9982	5606	4343	9949	6139	5357	11496	21600	16747	38347
Simbu	1927	1658	3586	3066	2424	5490	2943	2354	5297	3347	3169	6517	11284	9606	20890
Western Highlands	5406	4058	9467	6471	4898	11369	6019	4740	10758	6757	5712	12469	24654	19408	44063
Enga	4500	3416	7916	4705	3967	8672	4777	3683	8459	5272	4628	9900	19254	15694	34948
Morobe	6808	5555	12362	7797	6444	14242	7677	6329	14006	7614	6616	14229	29895	24944	54840
Madang	4734	3462	8196	5485	4204	9689	5242	4124	9366	4988	4538	9526	20449	16329	36777
Sandaun	2601	1916	4516	2896	2400	5296	2852	2122	4974	2832	2132	4964	11180	8569	19750
East Sepik	3887	3751	7638	5206	4653	9859	5082	4543	9625	5082	4956	10038	19257	17903	37160
Manus	598	605	1203	715	656	1371	730	649	1379	701	664	1364	2744	2573	5318
New Ireland	1621	1586	3208	1683	1529	3211	1801	1441	3242	1756	1407	3163	6861	5963	12824
East New Britain	3708	3741	7448	3801	3126	6927	3586	3024	6610	3702	3029	6731	14797	12920	27717
West New Britain	2968	2675	5644	2725	2119	4844	2603	2112	4715	2746	2196	4942	11042	9102	20144
North Solomons	3106	2811	5917	3333	2990	6323	3235	2926	6162	3138	2862	6000	12812	11591	24402
K L Murray	980	731	1711	969	780	1749	922	787	1709	925	793	1718	3796	3091	6887
TOTAL	67052	56383	123435	75504	62054	137559	73501	60813	134315	76078	66636	142714	292136	245886	538022

2008

PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

PROVINCE	AGE GROUPS 15 - 18												TOTAL					
	Age 13			Age 14			Age 15			Age 16			T	M	F	T	M	F
	M	F	T	M	F	T	M	F	T	M	F	T						
Western	1176	1121	2297	1226	1080	2306	1141	1077	2218	1020	993	2013	4564	4271	8835			
Gulf	1006	831	1837	1566	1190	2756	1534	1348	2882	1501	1313	2814	5607	4682	10290			
National Capital	4951	5165	10116	3414	2990	6405	3600	3153	6753	3774	3276	7050	15740	14584	30324			
Central	2468	2137	4605	3078	2632	5710	2954	2668	5622	2973	2573	5545	11474	10010	21483			
Milne Bay	2848	2539	5387	3105	2762	5867	3359	3007	6366	3247	2806	6053	12559	11113	23672			
Oro	1933	1612	3546	2064	1785	3850	2125	1726	3851	2153	1858	4011	8275	6981	15257			
Southern Highlands	6388	4726	11114	7015	5724	12739	6307	5150	11457	7023	6278	13301	26732	21878	48611			
Eastern Highlands	4111	2871	6982	5957	4310	10268	5768	4465	10233	6317	5507	11824	22153	17153	39307			
Simbu	1929	1668	3598	3155	2492	5647	3028	2420	5448	3445	3258	6703	11557	9839	21396			
Western Highlands	5549	4151	9701	6658	5035	11694	6193	4873	11066	6953	5872	12825	25353	19931	45284			
Enga	4671	3529	8200	4841	4079	8920	4915	3786	8701	5425	4757	10183	19853	16151	36003			
Morobe	6964	5666	12630	8023	6625	14648	7900	6507	14406	7834	6801	14635	30721	25598	56320			
Madang	4838	3514	8352	5644	4322	9966	5394	4240	9633	5133	4665	9798	21008	16741	37749			
Sandaun	2661	1954	4615	2979	2467	5447	2934	2181	5116	2914	2191	5106	11489	8794	20283			
East Sepik	3938	3807	7745	5357	4784	10140	5230	4670	9900	5230	5094	10324	19754	18356	38109			
Manus	613	619	1232	736	674	1410	751	667	1419	721	682	1403	2821	2643	5464			
New Ireland	1663	1635	3299	1731	1572	3303	1854	1481	3335	1807	1447	3253	7055	6135	13190			
East New Britain	3830	3879	7709	3911	3214	7125	3690	3109	6799	3809	3114	6923	15241	13315	28556			
West New Britain	3084	2779	5864	2804	2178	4982	2678	2172	4850	2826	2257	5083	11392	9386	20778			
North Solomons	3177	2876	6053	3429	3074	6504	3329	3008	6337	3229	2943	6171	13165	11901	25066			
K L Murray	1009	751	1760	997	802	1799	949	809	1757	952	815	1767	3906	3178	7084			
TOTAL	68809	57831	126640	77694	63792	141486	75633	62516	138149	78285	68501	146786	300420	252640	553061			

2009 PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

AGE GROUPS 15 - 18

PROVINCE	Age 13						Age 14						Age 15						Age 16						TOTAL					
	M		F		T		M		F		T		M		F		T		M		F		T		M		F		T	
Western	1210	1153	2363	1262	1110	2372	1174	1107	2281	1050	1021	2071	4696	4390	9087															
Gulf	1015	836	1850	1611	1224	2835	1579	1386	2964	1544	1350	2894	5748	4795	10544															
National Capital	5194	5464	10658	3513	3074	6587	3705	3241	6946	3884	3368	7252	16296	15148	31443															
Central	2515	2178	4693	3167	2706	5873	3040	2743	5783	3059	2645	5704	11782	10271	22053															
Milne Bay	2908	2595	5502	3195	2839	6034	3457	3091	6548	3341	2885	6226	12900	11409	24310															
Oro	1974	1651	3625	2124	1835	3960	2186	1774	3961	2215	1910	4125	8500	7170	15670															
Southern Highlands	6611	4844	11455	7218	5884	13102	6490	5295	11784	7227	6454	13680	27546	22477	50023															
Eastern Highlands	4156	2868	7044	6130	4431	10561	5936	4590	10525	6500	5661	12161	22722	17570	40292															
Simbu	1931	1678	3610	3247	2562	5809	3116	2488	5603	3544	3349	6894	11838	10077	21915															
Western Highlands	5693	4247	9940	6851	5176	12028	6373	5009	11362	7154	6036	13191	26072	20469	46540															
Enga	4848	3645	8494	4982	4193	9175	5058	3892	8950	5583	4891	10473	20471	16620	37091															
Morobe	7124	5779	12904	8256	6810	15066	8129	6689	14817	8062	6991	15053	31571	26270	57840															
Madang	4944	3567	8511	5808	4443	10251	5550	4358	9908	5281	4796	10077	21584	17164	38748															
Sandaun	2722	1993	4715	3066	2537	5602	3019	2243	5262	2999	2253	5251	11806	9025	20831															
East Sepik	3989	3864	7853	5512	4918	10430	5381	4801	10182	5381	5237	10618	20264	18820	39084															
Manus	628	633	1261	757	693	1450	773	686	1459	742	701	1443	2901	2713	5614															
New Ireland	1707	1686	3393	1782	1616	3397	1907	1523	3430	1859	1487	3346	7255	6311	13566															
East New Britain	3956	4023	7979	4025	3304	7329	3797	3196	6993	3920	3201	7120	15698	13723	29421															
West New Britain	3204	2888	6092	2885	2239	5124	2756	2232	4988	2908	2320	5228	11753	9680	21431															
North Solomons	3250	2942	6192	3529	3160	6689	3426	3093	6518	3322	3025	6347	13527	12220	25747															
K L Murray	1038	772	1810	1026	825	1851	976	831	1808	979	838	1818	4020	3267	7287															
TOTAL	70620	59326	129946	79947	65578	145525	77826	64266	142093	80555	70419	150974	308948	259589	568531															

2010 PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

AGE GROUPS 15 - 18

PROVINCE	Age 13						Age 14						Age 15						Age 16						TOTAL					
	M		F		T		M		F		T		M		F		T		M		F		T		M		F		T	
Western	1245	1185	2430	1298	1141	2440	1208	1138	2346	1081	1049	2130	4832	4513	9346															
Gulf	1023	841	1863	1658	1258	2916	1624	1425	3049	1589	1388	2977	5894	4911	10805															
National Capital	5449	5781	11230	3615	3160	6775	3812	3332	7144	3996	3462	7459	16872	15736	32608															
Central	2563	2219	4782	3259	2781	6041	3128	2820	5948	3148	2719	5867	12098	10539	22637															
Milne Bay	2969	2652	5620	3288	2919	6206	3557	3177	6734	3438	2965	6404	13251	11713	24965															
Oro	2015	1690	3706	2186	1887	4073	2250	1824	4074	2280	1963	4243	8731	7384	16095															
Southern Highlands	6843	4965	11808	7427	6049	13476	6678	5443	12121	7436	6635	14071	28384	23091	51476															
Eastern Highlands	4202	2906	7107	6308	4555	10863	6108	4718	10826	6689	5820	12508	23306	17999	41305															
Simbu	1933	1688	3622	3341	2634	5974	3206	2557	5763	3647	3443	7090	12127	10323	22450															
Western Highlands	5841	4345	10186	7050	5321	12371	6558	5149	11707	7362	6205	13567	26811	21020	47831															
Ernga	5033	3765	8798	5126	4310	9436	5204	4001	9205	5745	5028	10772	21108	17104	38212															
Morobe	7288	5895	13183	8495	7001	15497	8364	6876	15240	8295	7187	15482	32443	26959	59402															
Madang	5053	3620	8674	5977	4567	10544	5711	4480	10191	5435	4930	10365	22175	17598	39773															
Sandaun	2785	2033	4817	3155	2608	5762	3107	2305	5412	3086	2316	5401	12132	9261	21393															
East Sepik	4041	3922	7963	5672	5055	10727	5537	4936	10473	5537	5384	10921	20787	19297	40084															
Manus	644	648	1292	779	712	1492	795	705	1501	763	721	1484	2982	2786	5768															
New Ireland	1751	1738	3489	1833	1661	3494	1963	1565	3528	1913	1529	3442	7460	6493	13953															
East New Britain	4087	4171	8258	4141	3396	7538	3908	3285	7193	4033	3290	7324	16169	14143	30313															
West New Britain	3329	3001	6330	2969	2302	5271	2836	2295	5131	2992	2385	5377	12126	9983	22108															
North Solomons	3325	3010	6335	3631	3249	6880	3525	3179	6704	3419	3110	6528	13900	12547	26447															
K L Murray	1068	794	1862	1056	848	1904	1004	855	1859	1008	862	1870	4136	3358	7494															
TOTAL	72487	60869	133356	82266	67414	149680	80083	66066	146149	82891	72391	155282	317727	266740	584467															

2011

PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

PROVINCE	AGE GROUPS												TOTAL		
	Age 13			Age 14			Age 15			Age 16					
	M	F	T	M	F	T	M	F	T	M	F	T			
Western	1281	1218	2499	1336	1173	2509	1243	1170	2413	1112	1079	2191	4972	4640	9612
Gulf	1031	846	1877	1706	1293	2999	1671	1464	3136	1635	1427	3062	6043	5030	11074
National Capital	5716	6117	11832	3720	3249	6969	3923	3425	7348	4112	3659	7671	17470	16350	33820
Central	2612	2261	4873	3354	2859	6213	3219	2899	6117	3239	2795	6034	12423	10814	23237
Milne Bay	3031	2710	5741	3383	3000	6383	3660	3266	6926	3538	3049	6586	13612	12025	25637
Oro	2058	1731	3789	2249	1939	4189	2315	1875	4190	2346	2018	4364	8968	7564	16532
Southern Highlands	7092	5089	12172	7643	6218	13861	6872	5595	12467	7652	6820	14472	29249	23723	52972
Eastern Highlands	4248	2923	7171	6491	4683	11173	6285	4850	11135	6883	5983	12865	23906	18439	42345
Simbu	1935	1699	3634	3438	2707	6145	3299	2629	5928	3753	3540	7293	12425	10574	22999
Western Highlands	5993	4445	10438	7254	5470	12725	6748	5293	12041	7575	6379	13954	27571	21587	49158
Enga	5224	3890	9114	5275	4431	9706	5355	4113	9468	5911	5168	11079	21765	17602	39367
Morobe	7456	6013	13469	8742	7197	15939	8607	7069	15676	8536	7388	15924	33341	27667	61007
Madang	5164	3675	8839	6150	4695	10845	5876	4606	10482	5592	5068	10661	22783	18044	40827
Sandaun	2849	2073	4922	3246	2681	5927	3197	2370	5567	3175	2381	5556	12467	9505	21972
East Sepik	4093	3981	8074	5836	5197	11033	5698	5074	10772	5698	5534	11232	21326	19786	41112
Manus	660	663	1323	802	732	1534	818	725	1543	786	741	1527	3066	2861	5927
New Ireland	1797	1792	3589	1887	1707	3594	2020	1609	3629	1969	1572	3540	7671	6680	14352
East New Britain	4222	4326	8548	4262	3491	7753	4021	3377	7398	4150	3382	7533	16655	14577	31231
West New Britain	3459	3118	6577	3055	2366	5421	2918	2359	5277	3079	2452	5531	12511	10295	22806
North Solomons	3402	3079	6481	3737	3340	7076	3627	3268	6895	3518	3197	6715	14283	12884	27167
K L Murray	1099	816	1915	1086	872	1958	1033	879	1912	1037	886	1923	4256	3452	7708
TOTAL	74411	62463	136874	84651	69302	153953	82406	67916	150321	85295	74418	159713	326763	274098	600861

2012 PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

PROVINCE	A G E G R O U P S												TOTAL		
	Age 13			Age 14			Age 15			Age 16					
	M	F	T	M	F	T	M	F	T	M	F	T			
Western	1319	1252	2571	1375	1206	2581	1279	1203	2482	1144	1109	2253	5117	4770	9886
Gulf	1039	851	1890	1756	1329	3085	1720	1505	3225	1682	1467	3149	6197	5152	11349
National Capital	5996	6471	12467	3828	3339	7168	4036	3521	7558	4231	3659	7890	18091	16991	35082
Central	2661	2304	4966	3451	2939	6390	3312	2980	6292	3333	2873	6206	12758	11096	23854
Milne Bay	3095	2770	5864	3481	3084	6565	3766	3358	7124	3641	3134	6774	13982	12346	26328
Oro	2101	1773	3874	2314	1994	4308	2382	1928	4310	2414	2075	4488	9211	7769	16980
Southern Highlands	7330	5216	12547	7864	6393	14257	7071	5752	12823	7874	7011	14885	30139	24372	54511
Eastern Highlands	4295	2941	7235	6679	4814	11493	6467	4986	11453	7082	6150	13232	24523	18891	43414
Simbu	1937	1709	3646	3537	2783	6321	3395	2702	6097	3862	3639	7501	12731	10833	23564
Western Highlands	6149	4547	10696	7465	5623	13088	6943	5442	12385	7795	6558	14353	28352	22170	50522
Enga	5422	4018	9440	5428	4555	9983	5510	4228	9739	6083	5313	11396	22443	18114	40557
Morobe	7627	6133	13760	8995	7399	16394	8857	7266	16123	8783	7595	16379	34263	28393	62656
Madang	5278	3730	9008	6328	4827	11155	6047	4735	10782	5754	5210	10965	23407	18501	41909
Sandaun	2914	2115	5029	3340	2756	6096	3290	2436	5726	3267	2447	5715	12812	9754	22566
East Sepik	4147	4041	8187	6006	5342	11348	5863	5216	11079	5863	5689	11553	21879	20288	42167
Manus	677	678	1354	825	753	1578	842	745	1588	808	762	1570	3152	2938	6090
New Ireland	1843	1848	3691	1941	1755	3696	2078	1654	3732	2026	1616	3641	7888	6873	14761
East New Britain	4361	4486	8847	4385	3589	7974	4138	3472	7609	4271	3477	7748	17155	15024	32178
West New Britain	3594	3239	6833	3143	2433	5576	3003	2425	5428	3168	2521	5689	12908	10618	23526
North Solomons	3480	3150	6630	3845	3433	7278	3732	3360	7092	3620	3286	6906	14677	13229	27906
K L Murray	1131	839	1970	1118	896	2014	1063	903	1967	1067	911	1978	4380	3549	7928
TOTAL	76396	64109	140505	87106	71242	158348	84795	69817	154613	87768	76502	164270	336066	281670	617736

2013 PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 13						Age 14						Age 15						Age 16						TOTAL					
	M		F		T		M		F		T		M		F		T		M		F		T		M		F		T	
Western	1357	1287	2644	1415	1240	2655	1316	1236	2552	1177	1140	2317	5265	4903	10168															
Gulf	1047	856	1903	1806	1366	3173	1770	1548	3317	1731	1508	3239	6355	5278	11633															
National Capital	6289	6847	13136	3939	3433	7372	4153	3620	7773	4354	3761	8115	18736	17661	36397															
Central	2712	2348	5060	3551	3022	6573	3408	3063	6471	3430	2954	6383	13101	11386	24487															
Milne Bay	3160	2831	5990	3582	3171	6753	3875	3452	7327	3746	3222	6968	14363	12675	27038															
Oro	2145	1815	3960	2382	2050	4431	2451	1982	4433	2484	2133	4617	9462	7979	17441															
Southern Highlands	7587	5347	12934	8092	6572	14664	7276	5913	13189	8102	7208	15310	31057	25039	56096															
Eastern Highlands	4342	2958	7300	6873	4949	11821	6655	5126	11780	7288	6322	13610	25157	19355	44512															
Simbu	1939	1719	3658	3640	2861	6501	3493	2778	6271	3974	3741	7714	13046	11099	24145															
Western Highlands	6309	4651	10960	7681	5781	13462	7145	5594	12739	8021	6741	14762	29156	22768	51924															
Erga	5628	4151	9779	5585	4682	10268	5670	4346	10017	6259	5462	11721	23143	18641	41784															
Morobe	7803	6256	14058	9256	7606	16862	9113	7470	16583	9038	7808	16846	35211	29139	64350															
Madang	5394	3786	9180	6512	4962	11473	6222	4867	11090	5921	5356	11277	24049	18971	43020															
Sandaun	2981	2157	5138	3437	2833	6270	3385	2504	5890	3362	2516	5878	13166	10010	23176															
East Sepik	4201	4101	8302	6180	5492	11672	6033	5362	11395	6033	5849	11882	22447	20804	43250															
Manus	593	693	1387	849	774	1623	867	766	1633	832	783	1615	3241	3017	6258															
New Ireland	1891	1905	3796	1998	1804	3802	2138	1700	3839	2084	1661	3745	8112	7071	15182															
East New Britain	4505	4652	9157	4512	3690	8202	4258	3569	7826	4395	3575	7969	17670	15485	33154															
West New Britain	3734	3365	7100	3235	2501	5735	3090	2493	5583	3260	2591	5851	13319	10951	24269															
North Solomons	3550	3222	6782	3956	3529	7486	3841	3454	7294	3725	3378	7103	15082	13584	28665															
K L Murray	1164	862	2026	1150	921	2071	1094	929	2023	1098	936	2034	4507	3648	8155															
TOTAL	78442	65810	144251	89632	73237	162869	87255	71772	159027	90314	78644	168958	345642	289463	635105															

2014

PROJECTED HIGH SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

PROVINCE	AGE GROUPS												TOTAL		
	Age 13		Age 14		Age 15		Age 16		Age 17		Age 18				
	M	F	M	F	M	F	M	F	M	F	M	F			
Western	1396	1323	2719	1456	1275	2730	1354	1271	2625	1211	1172	2383	5418	5041	10458
Gulf	1056	861	1917	1859	1405	3264	1821	1591	3412	1781	1550	3332	6517	5407	11924
National Capital	6598	7244	13841	4053	3529	7582	4274	3721	7995	4480	3867	8347	19405	18361	37766
Central	2763	2393	5156	3654	3106	6760	3507	3149	6656	3529	3036	6565	13454	11684	25138
Milne Bay	3226	2893	6119	3686	3259	6945	3988	3549	7536	3855	3312	7167	14754	13013	27767
Oro	2190	1859	4049	2451	2107	4558	2522	2037	4559	2556	2192	4748	9719	8195	17914
Southern Highlands	7852	5480	13333	8327	6756	15083	7487	6078	13566	8337	7409	15746	32004	25724	57727
Eastern Highlands	4390	2976	7366	7072	5087	12159	6848	5269	12117	7499	6499	13998	25808	19832	45640
Simbu	1941	1729	3670	3746	2941	6687	3595	2856	6450	4089	3845	7934	13370	11372	24742
Western Highlands	6473	4758	11231	7904	5943	13847	7352	5751	13103	8254	6930	15184	29983	23382	53365
Enga	5842	4288	10130	5747	4814	10561	5835	4468	10303	6440	5615	12055	23865	19184	43049
Morobe	7982	6381	14363	9525	7819	17343	9378	7679	17057	9300	8026	17327	36185	29905	66090
Madang	5513	3843	9355	6701	5101	11801	6403	5004	11406	6093	5506	11599	24709	19453	44162
Sandaun	3050	2200	5250	3537	2912	6449	3483	2575	6058	3460	2586	6046	13530	10273	23803
East Sepik	4255	4163	8418	6359	5646	12005	6208	5512	11720	6208	6013	12221	23030	21333	44363
Manus	711	709	1420	874	795	1669	892	788	1679	856	805	1661	3332	3098	6430
New Ireland	1940	1964	3905	2055	1855	3910	2200	1748	3949	2145	1707	3852	8341	7274	15615
East New Britain	4654	4824	9478	4643	3793	8436	4381	3669	8050	4522	3675	8197	18200	15960	34160
West New Britain	3880	3497	7377	3328	2571	5899	3180	2563	5742	3354	2664	6018	13742	11294	25036
North Solomons	3642	3296	6938	4071	3628	7699	3952	3550	7503	3833	3473	7306	15498	13948	29446
K L Murray	1198	887	2084	1184	947	2130	1126	955	2081	1130	962	2092	4637	3750	8387
TOTAL	80551	67567	148119	92232	75287	167519	89785	73782	163567	92933	80846	173779	355501	297483	652983

SECONDARY SCHOOL-AGE POPULATION PROJECTIONS

1990

SECONDARY SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 15		Age 16		Age 17		Age 18		TOTAL		
	M	F	M	F	M	F	M	F	M	F	
Western	682	655	610	604	620	653	627	627	2539	2539	5078
Gulf	917	820	897	799	680	731	759	738	3253	3088	6341
National Capital	2152	1918	2256	1993	2206	1819	2792	2193	9406	7923	17329
Central	1766	1623	1777	1565	1495	1367	1775	1621	6813	6176	12989
Milne Bay	2008	1829	1941	1707	1741	1682	1969	1788	7659	7006	14665
Oro	1270	1050	1287	1130	1148	951	1347	1200	5052	4331	9383
Southern Highlands	3770	3133	4198	3819	2577	2153	4281	3991	14826	13096	27922
Eastern Highlands	3448	2716	3776	3350	2879	2517	3870	3457	13973	12040	26013
Simbu	1810	1472	2059	1982	1521	1331	2095	1920	7485	6705	14190
Western Highlands	3702	2964	4156	3572	2973	2310	4639	3594	15470	12440	27910
Enga	2938	2303	3243	2894	2003	1692	3837	3106	12021	9995	22016
Morobe	4722	3958	4683	4137	8820	3709	8042	4381	18839	16185	35024
Madang	3224	2579	3068	2838	2780	2329	3480	3027	12552	10773	23325
Sandaun	1754	1327	1742	1333	1538	1148	1616	1463	6650	5271	11921
East Sepik	3126	2841	3126	3099	2758	2677	2960	3123	11970	11740	23710
Manus	449	406	431	415	428	357	387	404	1695	1582	3277
New Ireland	1108	901	1080	880	971	756	1047	925	4206	3462	7668
East New Britain	2206	1891	2277	1894	2058	1761	2440	2034	8981	7580	16561
West New Britain	1601	1321	1689	1373	1404	1179	1870	1492	6564	5365	11929
North Solomons	1990	1830	1930	1790	1870	1750	1790	1680	7580	7050	14630
K L Murray	567	492	569	496	490	452	590	475	2216	1915	4131
TOTAL	45210	38029	63239	41670	38473	33324	49272	43239	179750	156262	336012

1991

PROJECTED SECONDARY SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 15			Age 16			Age 17			Age 18			TOTAL		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
	Western	702	673	1375	628	621	1249	638	671	1309	645	645	1290	2613	2610
Gulf	924	825	1749	923	821	1744	700	751	1451	781	759	1540	3328	3156	6485
National Capital	2257	2029	4287	2321	2049	4370	2270	1870	4140	2873	2254	5127	9722	8202	17924
Central	1800	1654	3453	1629	1609	3437	1538	1405	2944	1826	1666	3493	6993	6334	13327
Milne Bay	2050	1869	3919	1997	1755	3752	1791	1729	3521	2026	1838	3864	7865	7191	15056
Oro	1297	1075	2372	1324	1162	2486	1181	978	2159	1386	1234	2620	5188	4448	9636
Southern Highlands	3902	3211	7113	4320	3926	8246	2652	2213	4865	4405	4103	8508	15279	13453	28732
Eastern Highlands	3486	2732	6218	3886	3444	7329	2962	2587	5550	3982	3554	7536	14316	12317	26634
Simbu	1812	1481	3293	2119	2037	4156	1565	1368	2933	2156	1974	4130	7651	6860	14512
Western Highlands	3798	3032	6830	4277	3672	7949	3059	2375	5434	4774	3695	8468	15908	12774	28681
Enga	3050	2379	5429	3337	2975	6312	2061	1739	3800	3948	3193	7141	12396	10286	22682
Morobe	4831	4037	8868	4819	4253	9072	4459	3813	8272	5249	4504	9753	19357	16607	35964
Madang	3295	2618	5913	3157	2917	6074	2861	2394	5255	3581	3112	6693	12893	11041	23935
Sandaun	1794	1354	3148	1793	1370	3163	1583	1180	2763	1663	1504	3167	6832	5408	12240
East Sepik	3167	2884	6050	3217	3186	6402	2838	2752	5590	3046	3210	6256	12267	12032	24299
Manus	460	415	876	443	427	870	440	367	807	398	415	814	1742	1624	3367
New Ireland	1137	929	2066	1111	905	2016	999	777	1776	1077	951	2028	4325	3562	7886
East New Britain	2279	1961	4240	2343	1947	4290	2118	1810	3928	2511	2091	4602	9250	7809	17060
West New Britain	1663	1373	3036	1738	1411	3149	1445	1212	2657	1924	1534	3458	6770	5530	12300
North Solomons	2036	1872	3908	1986	1840	3826	1924	1799	3723	1842	1727	3569	7788	7238	15026
K L Murray	583	506	1089	586	510	1095	504	465	969	607	488	1095	2280	1969	4249
TOTAL	46323	38909	85232	48152	42837	90989	39589	34257	73846	50701	44450	95151	184764	160453	345217

1992

PROJECTED SECONDARY SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 15		Age 16		Age 17		Age 18		TOTAL			
	M	F	M	F	M	F	M	F	M	F		
Western	722	692	1414	646	1284	638	1347	664	1326	2688	2683	5372
Gulf	932	830	1762	950	1794	844	1493	804	1584	3405	3227	6632
National Capital	2368	2147	4515	2389	4495	2106	4258	2956	5274	10049	8493	18542
Central	1834	1685	3519	1882	3535	1654	3028	1879	3592	7178	6497	13675
Milne Bay	2093	1910	4004	2055	3859	1804	3621	2085	3974	8077	7381	15458
Oro	1324	1101	2425	1363	2557	1194	2221	1426	2694	5328	4568	9897
Southern Highlands	4039	3292	7330	4445	8481	4036	5004	4533	8751	15745	13820	29565
Eastern Highlands	3524	2749	6273	3998	7538	3540	5708	4098	7751	14669	12602	27271
Simbu	1814	1490	3303	2180	4275	2095	3017	2218	4247	7823	7020	14842
Western Highlands	3897	3102	6999	4401	8175	3775	5589	4912	8710	16357	13116	29473
Enga	3166	2458	5623	3434	6492	3058	3909	4063	7345	12783	10586	23369
Morobe	4942	4118	9060	4959	9330	4372	8508	5401	10031	19889	17039	36929
Madang	3367	2657	6024	3249	6248	2999	5405	3685	6884	13244	11316	24561
Sandaun	1836	1381	3216	1845	3253	1409	2842	1711	3257	7020	5549	12568
East Sepik	3208	2927	6135	3310	6585	3275	5749	3134	6435	12572	12331	24903
Manus	472	425	897	456	695	439	830	410	837	1791	1668	3459
New Ireland	1166	958	2124	1144	2074	930	1827	1109	2086	4447	3664	8111
East New Britain	2354	2034	4388	2411	4413	2002	4040	2584	4733	9528	8046	17573
West New Britain	1728	1426	3154	1788	3239	1451	2733	1980	3557	6983	5700	12683
North Solomons	2083	1915	3998	2044	3935	1892	3829	1895	3671	8002	7432	15433
K L Murray	600	520	1120	602	1127	524	996	625	1127	2346	2024	4370
TOTAL	47468	39815	87282	49548	93585	44036	75953	52171	97865	189924	164761	354686

1993

PROJECTED SECONDARY SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 15			Age 16			Age 17			Age 18			TOTAL		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Western	743	712	1455	665	656	1321	676	709	1385	683	681	1364	2766	2758	5525
Gulf	939	835	1774	977	868	1845	741	794	1535	827	802	1629	3484	3299	6783
National Capital	2484	2271	4756	2458	2165	4623	2404	1976	4380	3042	2382	5424	10388	8795	19183
Central	1869	1717	3586	1936	1700	3636	1629	1485	3114	1934	1761	3695	7368	6664	14031
Milne Bay	2137	1952	4090	2115	1854	3969	1897	1827	3724	2145	1942	4088	8294	7577	15871
Oro	1352	1127	2479	1402	1228	2630	1251	1033	2284	1468	1304	2771	5472	4692	10164
Southern Highlands	4180	3374	7554	4574	4149	8723	2808	2339	5147	4664	4336	9000	16226	14197	30423
Eastern Highlands	3563	2765	6328	4114	3639	7753	3137	2734	5871	4217	3756	7972	15031	12895	27925
Simbu	1815	1499	3314	2243	2153	4397	1657	1446	3103	2283	2086	4368	7999	7184	15182
Western Highlands	3998	3173	7172	4528	3881	8409	3239	2510	5749	5054	3904	8959	16820	13468	30288
Enga	3286	2539	5824	3533	3144	6677	2182	1838	4021	4181	3374	7555	13182	10895	24077
Morobe	5055	4200	9256	5102	4494	9597	4721	4029	8750	5558	4759	10317	20437	17483	37920
Madang	3441	2697	6138	3343	3083	6426	3029	2530	5559	3792	3288	7080	13605	11599	25203
Sandaun	1878	1408	3286	1898	1448	3346	1676	1247	2923	1761	1589	3350	7212	5693	12905
East Sepik	3250	2971	6220	3406	3367	6773	3005	2908	5913	3225	3393	6618	12885	12638	25524
Manus	484	435	918	470	451	920	466	388	854	422	439	861	1841	1712	3553
New Ireland	1197	987	2184	1177	956	2133	1058	821	1879	1141	1005	2146	4572	3770	8342
East New Britain	2432	2109	4540	2481	2058	4538	2242	1913	4155	2658	2210	4868	9813	8289	18103
West New Britain	1796	1482	3277	1840	1492	3332	1530	1281	2611	2037	1621	3658	7203	5875	13078
North Solomons	2130	1959	4090	2103	1945	4047	2037	1901	3939	1950	1825	3775	8221	7630	15851
K.L. Murray	618	534	1152	620	539	1159	534	491	1025	643	516	1159	2414	2080	4495
TOTAL	48646	40747	89393	50985	45269	96255	41918	36202	78120	53684	46974	100658	195234	169192	364426

1994

PROJECTED SECONDARY SCHOOL AGE POPULATION: BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 15			Age 16			Age 17			Age 18			TOTAL		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Western	765	731	1496	684	675	1358	695	729	1424	703	700	1403	2847	2836	5682
Gulf	947	840	1787	1006	892	1898	762	816	1579	851	824	1675	3566	3373	6938
National Capital	2606	2403	5009	2529	2226	4755	2473	2031	4505	3130	2449	5579	10739	9110	19848
Central	1904	1750	3654	1992	1748	3740	1676	1527	3203	1990	1810	3800	7563	6835	14397
Milne Bay	2182	1995	4177	2176	1906	4083	1952	1878	3830	2208	1997	4204	8518	7777	16295
Oro	1380	1154	2535	1443	1262	2705	1287	1062	2349	1510	1340	2850	5620	4819	10439
Southern Highlands	4326	3458	7784	4707	4265	8972	2889	2404	5294	4800	4457	9257	16722	14585	31306
Eastern Highlands	3602	2782	6384	4233	3741	7975	3228	2811	6039	4339	3861	8200	15402	13195	28597
Simbu	1817	1508	3325	2308	2213	4522	1705	1486	3192	2349	2144	4493	8180	7352	15532
Western Highlands	4102	3246	7349	4659	3989	8649	3333	2580	5913	5201	4014	9215	17296	13829	31125
Enga	3411	2622	6033	3636	3232	6868	2246	1890	4135	4302	3469	7771	13594	11213	24807
Morobe	5172	4284	9456	5250	4620	9870	4858	4142	9000	5719	4893	10612	20999	17939	38938
Madang	3517	2737	6254	3440	3169	6609	3117	2601	5718	3902	3381	7282	13975	11888	25863
Sandaun	1921	1436	3357	1953	1469	3442	1724	1282	3006	1812	1634	3446	7410	5841	13251
East Sepik	3292	3015	6307	3505	3461	6966	3092	2990	6082	3319	3488	6806	13207	12954	26161
Manus	496	445	940	483	463	947	480	399	879	434	451	885	1893	1758	3651
New Ireland	1228	1018	2246	1211	983	2194	1089	844	1933	1174	1033	2207	4701	3878	8579
East New Britain	2512	2187	4699	2553	2115	4668	2307	1967	4274	2736	2272	5007	10108	8540	18648
West New Britain	1866	1539	3405	1894	1533	3427	1574	1317	2891	2097	1666	3763	7430	6056	13486
North Solomons	2179	2004	4184	2164	1999	4163	2097	1954	4051	2007	1876	3883	8447	7834	16281
K.L. Murray	636	549	1185	638	554	1192	549	505	1054	661	530	1192	2484	2139	4623
TOTAL	49860	41706	91566	52464	46537	99001	43134	37216	80350	55241	48289	103530	200699	173748	374447

1997

PROJECTED SECONDARY SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 15		Age 16		Age 17		Age 18		TOTAL						
	M	F	M	F	M	F	M	F	T	M	F	T			
Western	833	795	745	733	1478	1478	757	792	1550	766	761	1527	3101	3080	6182
Gulf	970	855	1096	969	2065	2065	831	887	1718	927	895	1823	3823	3607	7430
National Capital	3008	2846	2756	2418	5174	5174	2695	2207	4902	3411	2661	6071	11869	10132	22001
Central	2015	1852	2171	1899	4069	4069	1826	1659	3485	2168	1967	4135	8180	7376	15555
Milne Bay	2322	2130	2371	2071	4442	4442	2127	2041	4167	2405	2169	4575	9225	8411	17636
Oro	1469	1240	1572	1371	2943	2943	1402	1154	2556	1645	1456	3101	6089	5220	11309
Southern Highlands	4796	3724	5128	4633	9761	9761	3148	2612	5760	5229	4842	10072	18302	15812	34114
Eastern Highlands	3722	2832	4613	4064	8677	8677	3517	3054	6571	4727	4194	8922	16579	14145	30724
Simbu	1823	1535	2515	2405	4920	4920	1858	1615	3473	2559	2329	4889	8755	7884	16639
Western Highlands	4431	3475	5077	4334	9410	9410	3632	2803	6434	5667	4360	10027	18606	14972	33778
Enga	3614	2891	3961	3511	7473	7473	2447	2053	4500	4687	3768	8455	14910	12223	27133
Morobe	5537	4546	5720	5019	10740	10740	5293	4500	9793	6231	5315	11546	22781	19381	42162
Madang	3754	2862	3748	3443	7191	7191	3396	2826	6222	4251	3673	7923	15149	12804	27953
Sandaun	2057	1524	2128	1617	3745	3745	1879	1393	3272	1974	1775	3749	8037	6309	14347
East Sepik	3422	3153	3819	3760	7578	7578	3369	3248	6617	3616	3789	7405	14225	13950	28175
Manus	534	476	526	504	1030	1030	523	433	956	473	490	963	2056	1903	3959
New Ireland	1326	1116	1319	1068	2387	2387	1186	917	2103	1279	1122	2401	5110	4223	9333
East New Britain	2769	2439	2781	2298	5079	5079	2514	2137	4650	2981	2468	5448	11045	9341	20386
West New Britain	2093	1727	2063	1666	3729	3729	1715	1430	3145	2284	1810	4094	8155	6633	14788
North Solomons	2333	2146	2358	2172	4529	4529	2284	2123	4407	2187	2038	4225	9162	8479	17641
K L Murray	693	597	695	602	1297	1297	599	548	1147	721	576	1297	2707	2323	5030
TOTAL	53720	44760	98481	57162	50556	107718	46996	40430	87427	60188	52460	112648	218066	188207	406273

1999 PROJECTED SECONDARY SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 15						Age 16						Age 17						Age 18						TOTAL																																																																																																																																																																																																																																																																																																																																						
	M		F		T		M		F		T		M		F		T		M		F		T		M		F		T																																																																																																																																																																																																																																																																																																																																		
Western	882	840	1722	789	774	1563	802	837	1639	811	804	1615	3284	3255	6539	Gulf	985	865	1851	1160	1024	2185	880	937	1817	982	946	1928	4007	3773	7780	National Capital	3310	3186	6496	2918	2555	5473	2853	2332	5186	3611	2812	6423	12692	10885	23577	Central	2092	1923	4015	2298	2007	4305	1934	1753	3686	2296	2078	4374	8620	7760	16380	Milne Bay	2421	2225	4646	2511	2189	4699	2252	2157	4408	2547	2292	4839	9730	8862	18592	Oro	1531	1300	2831	1665	1449	3113	1485	1219	2704	1742	1539	3281	6423	5507	11929	Southern Highlands	5138	3913	9051	5430	4897	10326	3333	2760	6094	5537	5117	10654	19438	16687	36125	Eastern Highlands	3805	2866	6671	4884	4295	9179	3724	3227	6951	5006	4432	9438	17418	14821	32239	Simbu	1826	1553	3380	2663	2541	5204	1967	1707	3674	2710	2462	5171	9166	8263	17429	Western Highlands	4664	3637	8301	5375	4580	9955	3845	2962	6807	6000	4608	10608	19885	15787	35672	Enga	4110	3085	7194	4195	3711	7905	2591	2169	4760	4963	3982	8945	15858	12947	28805	Morobe	5794	4730	10525	6057	5304	11361	5604	4755	10360	6598	5617	12215	24054	20407	44461	Madang	3922	2949	6870	3968	3639	7607	3596	2986	6582	4501	3881	8382	15986	13455	29441	Sandaun	2152	1586	3738	2253	1709	3962	1989	1472	3461	2090	1876	3966	8485	6643	15128	East Sepik	3511	3248	6760	4043	3973	8017	3567	3432	7000	3829	4004	7833	14950	14658	29609	Manus	561	498	1059	557	532	1090	554	458	1011	501	518	1019	2172	2006	4178	New Ireland	1396	1186	2582	1397	1128	2525	1256	969	2225	1354	1186	2540	5403	4469	9872	East New Britain	2955	2622	5577	2945	2428	5373	2662	2258	4920	3156	2608	5764	11718	9917	21634	West New Britain	2259	1864	4123	2185	1760	3945	1816	1512	3328	2419	1913	4332	8678	7049	15727	North Solomons	2442	2246	4688	2496	2295	4791	2419	2244	4662	2315	2154	4469	9672	8938	18611	K L Murray	733	631	1364	736	636	1372	634	580	1213	763	609	1372	2866	2455	5322	TOTAL	56490	46952	103442	60525	53427	113953	49762	42726	92488	63729	55439	119168	230506	198544	429051
TOTAL	56490	46952	103442	60525	53427	113953	49762	42726	92488	63729	55439	119168	230506	198544	429051																																																																																																																																																																																																																																																																																																																																																

2000

PROJECTED SECONDARY SCHOOL AGE POPULATION: BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 15						Age 16						Age 17						Age 18						TOTAL					
	M		F		T		M		F		T		M		F		T		M		F		T		M		F		T	
Western	908	863	1771	812	796	1608	825	861	1686	834	826	1661	3379	3347	6726															
Gulf	993	871	1864	1194	1053	2247	905	963	1869	1010	973	1983	4102	3860	7962															
National Capital	3472	3371	6843	3003	2627	5629	2936	2398	5334	3716	2890	6606	13127	11285	24412															
Central	2132	1959	4091	2365	2063	4428	1990	1802	3792	2362	2137	4499	8849	7960	16809															
Milne Bay	2472	2274	4745	2583	2250	4833	2317	2217	4534	2621	2357	4977	9993	9097	19090															
Oro	1563	1331	2894	1713	1489	3202	1528	1253	2781	1793	1582	3374	6597	5656	12252															
Southern Highlands	5318	4011	9328	5587	5034	10621	3430	2838	6268	5698	5260	10958	20033	17142	37175															
Eastern Highlands	3847	2883	6730	5026	4415	9441	3832	3318	7149	5151	4556	9707	17855	15173	33028															
Simbu	1828	1563	3391	2740	2612	5353	2024	1754	3779	2788	2531	5319	9381	8460	17841															
Western Highlands	4785	3721	8506	5531	4708	10239	3957	3045	7002	6174	4737	10911	20448	16211	36658															
Enga	4266	3186	7452	4316	3814	8131	2666	2230	4896	5107	4094	9201	16355	13325	29680															
Morobe	5928	4825	10752	6233	5453	11685	5767	4889	10656	6789	5774	12563	24716	20941	45657															
Madang	4008	2993	7001	4083	3741	7824	3700	3070	6770	4632	3990	8621	16423	13793	30216															
Sandaun	2202	1618	3819	2318	1757	4075	2047	1513	3560	2151	1928	4079	8718	6816	15534															
East Sepik	3557	3297	6854	4160	4085	8245	3671	3528	7199	3940	4116	8056	15328	15026	30354															
Manus	575	510	1084	574	547	1121	570	471	1040	515	532	1048	2233	2060	4293															
New Ireland	1432	1223	2655	1437	1160	2597	1292	996	2289	1393	1219	2613	5555	4598	10154															
East New Britain	3052	2719	5772	3031	2496	5527	2739	2321	5060	3247	2681	5928	12069	10218	22287															
West New Britain	2347	1937	4284	2248	1810	4058	1869	1554	3423	2489	1967	4455	8953	7267	16219															
North Solomons	2498	2297	4795	2569	2359	4928	2489	2307	4795	2382	2214	4597	9938	9177	19115															
K L Murray	755	648	1403	757	654	1411	652	596	1248	785	626	1411	2949	2524	5473															
TOTAL	57937	48099	106036	62281	54923	117204	51205	43923	95127	65577	56991	122568	237000	203936	440936															

PROJECTED SECONDARY SCHOOL AGE POPULATION: BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 15		Age 16		Age 17		Age 18		TOTAL					
	M	F	M	F	M	F	M	F	T	M	F	T		
Western	934	887	835	818	1654	885	1734	859	650	1708	3477	3440	6917	
Gulf	1001	876	1228	1083	2311	990	1922	1039	1000	2039	4200	3949	8149	
National Capital	3642	3566	3090	2700	5790	2465	5486	3824	2971	6795	13577	11703	25279	
Central	2172	1996	2434	2121	4554	1852	3900	2431	2196	4627	9084	8165	17250	
Milne Bay	2524	2324	2658	2313	4971	2279	4663	2697	2423	5119	10263	9338	19601	
Oro	1596	1363	1763	1531	3294	1289	2861	1845	1626	3471	6776	5809	12584	
Southern Highlands	5504	4111	5749	5175	10924	2917	6446	5863	5408	11271	20646	17610	38256	
Eastern Highlands	3889	2901	5171	4539	9710	3410	7353	5300	4684	9984	18303	15534	33837	
Simbu	1830	1572	2820	2686	5505	1803	3886	2869	2602	5471	9602	8663	18265	
Western Highlands	4910	3806	5692	4840	10532	3130	7202	6353	4870	11223	21026	16646	37672	
Enga	4428	3292	4441	3921	8363	2293	5036	5255	4208	9463	16868	13714	30581	
Morobe	6064	4921	6413	5605	12019	5026	10960	6986	5936	12922	25398	21488	46886	
Madang	4096	3038	4202	3845	8047	3156	6963	4766	4101	8867	16871	14140	31011	
Sandaun	2252	1650	2386	1806	4192	1555	3662	2213	1982	4195	8958	6994	15952	
East Sepik	3603	3347	4281	4199	8480	3627	7404	4054	4232	8285	15715	15404	31120	
Manus	589	521	590	562	1153	484	1070	530	547	1077	2296	2115	4410	
New Ireland	1469	1261	1479	1192	2671	1024	2354	1434	1253	2687	5712	4731	10443	
East New Britain	3153	2820	3118	2566	5685	2386	5205	3342	2756	6098	12431	10528	22960	
West New Britain	2439	2012	2313	1860	4173	1597	3620	2561	2022	4583	9236	7492	16727	
North Solomons	2556	2350	2643	2425	5069	2371	4932	2451	2276	4728	10211	9423	19634	
K.L. Murray	777	667	779	672	1451	612	1284	808	644	1452	3035	2595	5630	
TOTAL	59428	49281	108709	64087	56461	120548	52690	97842	67479	58587	126066	243684	209481	453165

2002

PROJECTED SECONDARY SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 15				Age 16				Age 17				Age 18				TOTAL					
	M		F		M		F		M		F		M		F		M		F		T	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	T	
Western	961	912	1873	841	1701	874	910	1783	884	873	1757	3578	3537	7115								
Gulf	1009	881	1890	1113	2377	958	1018	1976	1070	1028	2098	4301	4040	8341								
National Capital	3821	3773	7594	2776	5955	3109	2534	5642	3935	3055	6989	14043	12137	26181								
Central	2214	2034	4248	2180	4684	2107	1904	4011	2501	2258	4759	9326	8376	17702								
Milne Bay	2577	2375	4952	2378	5113	2453	2343	4796	2775	2490	5265	10540	9586	20126								
Oro	1630	1396	3025	1574	3388	1618	1325	2942	1898	1671	3570	6959	5966	12925								
Southern Highlands	5697	4214	9910	5319	11235	3632	2999	6631	6033	5559	11592	21277	18091	39368								
Eastern Highlands	3932	2918	6850	4666	9987	4057	3506	7563	5454	4815	10269	18764	15905	34669								
Simbu	1832	1582	3413	2761	5662	2143	1854	3997	2952	2674	5627	9829	8871	18700								
Western Highlands	5037	3894	8931	4975	10832	4190	3218	7407	6537	5006	11544	21621	17093	38714								
Enga	4596	3400	7997	4031	8601	2823	2357	5179	5407	4326	9734	17397	14114	31511								
Morobe	6203	5020	11223	5762	12362	6106	5166	11272	7189	6102	13291	26098	22051	48148								
Madang	4186	3083	7270	3953	8277	3918	3244	7162	4904	4216	9120	17331	14497	31828								
Sandaun	2304	1683	3987	1857	4312	2167	1599	3766	2277	2038	4315	9204	7177	16380								
East Sepik	3650	3397	7047	4317	8722	3887	3729	7615	4171	4350	8521	16113	15792	31905								
Manus	604	533	1137	578	1185	603	497	1100	545	563	1108	2360	2171	4531								
New Ireland	1508	1300	2807	1226	2748	1368	1053	2421	1475	1288	2764	5873	4867	10740								
East New Britain	3257	2924	6181	2638	5847	2900	2453	5353	3439	2833	6272	12805	10849	23653								
West New Britain	2534	2091	4625	1912	4293	1979	1642	3621	2635	2078	4713	9528	7724	17251								
North Solomons	2614	2404	5018	2493	5213	2635	2438	5073	2523	2340	4863	10492	9675	20167								
K L Murray	799	685	1484	691	1493	691	630	1320	831	662	1493	3123	2667	5790								
TOTAL	60964	50499	111463	58042	123987	54218	46417	100634	69436	60227	129663	250563	215185	465748								

2003 PROJECTED SECONDARY SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

AGE GROUPS 15 - 18

PROVINCE	Age 15			Age 16			Age 17			Age 18			TOTAL		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
	Western	969	938	1927	885	865	1749	899	935	1834	909	898	1807	3682	3636
Gulf	1017	886	1903	1301	1144	2445	986	1047	2033	1101	1057	2157	4405	4134	8538
National Capital	4008	3992	8000	3271	2854	6125	3199	2605	5804	4049	3140	7189	14527	12590	27117
Central	2256	2073	4328	2577	2241	4818	2168	1957	4125	2574	2321	4895	9574	8592	18167
Milne Bay	2631	2427	5058	2815	2444	5259	2525	2408	4933	2855	2560	5415	10825	9840	20665
Oro	1664	1429	3093	1866	1618	3484	1665	1362	3026	1953	1718	3672	7148	6127	13275
Southern Highlands	5896	4319	10215	6088	5468	11556	3737	3083	6820	6208	5715	11923	21928	18585	40513
Eastern Highlands	3975	2936	6911	5476	4797	10272	4175	3604	7779	5612	4950	10562	19237	16287	35524
Simbu	1834	1591	3425	2986	2838	5824	2206	1906	4111	3038	2749	5787	10063	9084	19147
Western Highlands	5168	3983	9152	6027	5115	11141	4311	3308	7619	6727	5146	11873	22233	17552	39785
Enga	4771	3512	8283	4703	4144	8847	2905	2423	5327	5564	4447	10012	17942	14526	32469
Morobe	6346	5120	11466	6791	5924	12715	6283	5311	11594	7397	6273	13670	26817	22628	49445
Madang	4278	3130	7408	4449	4064	8513	4031	3335	7366	5046	4334	9381	17805	14863	32667
Sandaun	2357	1717	4074	2526	1909	4435	2230	1644	3874	2343	2095	4438	9457	7364	16821
East Sepik	3698	3448	7145	4533	4437	8970	3999	3833	7833	4292	4472	8764	16522	16190	32712
Manus	619	546	1165	625	594	1219	621	511	1132	561	578	1140	2426	2230	4655
New Ireland	1547	1340	2887	1566	1260	2826	1408	1083	2491	1518	1325	2843	6039	5007	11046
East New Britain	3364	3033	6397	3302	2712	6014	2984	2522	5506	3538	2912	6451	13189	11179	24368
West New Britain	2633	2172	4805	2449	1966	4415	2036	1688	3724	2712	2136	4848	9830	7963	17792
North Solomons	2674	2459	5133	2799	2563	5362	2712	2506	5218	2596	2406	5001	10781	9934	20714
K L Murray	822	704	1527	825	710	1535	711	647	1358	856	680	1536	3213	2742	5956
TOTAL	62547	51755	114302	67858	59667	127525	55790	47716	103506	71450	61914	133363	257645	221052	478697

2004 PROJECTED SECONDARY SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

AGE GROUPS 15 - 18

PROVINCE	Age 15		Age 16		Age 17		Age 18		TOTAL					
	M	F	M	F	M	F	M	F	T	M	F	T		
	Western	1018	964	1982	889	1799	925	961	1886	936	923	1859	3789	3737
Gulf	1025	892	1917	1176	2515	1015	1076	2091	1133	1086	2219	4511	4230	8741
National Capital	4204	4223	8428	3366	6300	3292	2678	5969	4166	3228	7394	15028	13063	28091
Central	2298	2112	4411	2652	4955	2231	2012	4243	2649	2386	5035	9829	8814	18644
Milne Bay	2686	2480	5167	2896	5409	2598	2476	5074	2938	2632	5570	11118	10101	21219
Oro	1699	1463	3162	1920	3584	1713	1400	3113	2010	1766	3776	7342	6293	13635
Southern Highlands	6102	4427	10529	6264	11886	3845	3169	7014	6388	5875	12263	22600	19092	41692
Eastern Highlands	4019	2953	6972	5634	10566	4296	3705	8001	5775	5089	10863	19724	16678	36402
Simbu	1836	1601	3436	3072	5990	2270	1959	4229	3126	2826	5952	10304	9303	19607
Western Highlands	5303	4075	9378	6201	11459	4436	3400	7836	6922	5290	12212	22862	18024	40886
Enga	4952	3628	8581	4839	9099	2989	2491	5479	5725	4572	10297	18506	14951	33456
Morobe	6492	5222	11715	6988	13077	6466	5460	11925	7612	6449	14060	27557	23220	50777
Madang	4372	3177	7549	4578	8755	4148	3428	7576	5193	4456	9648	18291	15238	33529
Sandaun	2412	1751	4162	2599	4561	2295	1690	3985	2411	2154	4565	9717	7556	17274
East Sepik	3746	3499	7245	4664	9226	4115	3941	8056	4417	4597	9014	16942	16599	33541
Manus	634	558	1193	643	1254	639	525	1164	577	595	1172	2494	2289	4783
New Ireland	1587	1361	2969	1612	2907	1449	1113	2562	1562	1362	2924	6210	5151	11361
East New Britain	3475	3145	6620	3398	6186	3071	2592	5663	3641	2994	6635	13585	11519	25104
West New Britain	2735	2257	4992	2520	4541	2095	1735	3830	2790	2196	4987	10141	8210	18351
North Solomons	2736	2516	5252	2880	5515	2790	2576	5366	2671	2473	5144	11077	10200	21277
K L Murray	846	724	1570	849	1579	731	665	1396	880	699	1580	3307	2819	6125
TOTAL	64178	53051	117229	69826	131163	57408	49052	106460	73522	63647	137169	264933	227088	492021

2005

PROJECTED SECONDARY SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 15		Age 16		Age 17		Age 18		TOTAL			
	M	F	M	F	M	F	M	F	T	M	F	T
Western	1047	991	2038	914	1851	952	963	949	1911	3898	3842	7740
Gulf	1033	897	1930	1209	2586	1044	1165	1117	2282	4620	4329	8949
National Capital	4410	4468	8879	3016	6480	3387	4287	3318	7605	15548	13555	29103
Central	2342	2152	4495	2368	5097	2295	2725	2453	5178	10091	9042	19133
Milne Bay	2743	2535	5278	2583	5563	2673	3023	2706	5729	11419	10369	21788
Oro	1735	1499	3233	1710	3686	1763	2068	1816	3884	7542	6463	14005
Southern Highlands	6316	4538	10854	5779	12225	3957	6573	6039	12612	23292	19614	42905
Eastern Highlands	4063	2971	7034	5069	10867	4421	5942	5231	11173	20223	17080	37303
Simbu	1837	1610	3448	2999	6161	2335	3217	2905	6122	10551	9529	20080
Western Highlands	5441	4169	9609	5405	11786	4565	7123	5438	12561	23510	18508	42017
Enga	5141	3748	8889	4379	9359	3075	5891	4700	10591	19087	15388	34474
Morobe	6641	5327	11968	7190	13451	6653	7832	6629	14462	28317	23829	52146
Madang	4468	3224	7693	4294	9005	4269	5343	4580	9924	18791	15624	34414
Sandaun	2467	1786	4253	2017	4692	2361	2481	2214	4695	9984	7754	17738
East Sepik	3794	3552	7346	4800	9489	4235	4545	4726	9271	17374	17018	34392
Manus	650	571	1221	628	1290	657	594	611	1206	2563	2351	4914
New Ireland	1628	1424	3053	1332	2990	1491	1608	1400	3007	6385	5300	11685
East New Britain	3590	3261	6851	2866	6362	3160	3746	3078	6824	13993	11870	25862
West New Britain	2842	2345	5187	2078	4671	2156	2871	2258	5129	10462	8464	18927
North Solomons	2799	2574	5373	2709	5672	2871	2748	2542	5291	11382	10473	21855
K L Murray	871	744	1615	751	1624	752	906	719	1625	3403	2898	6300
TOTAL	65859	54387	120246	63055	134906	59073	75654	65429	141083	272436	233297	505733

2006

PROJECTED SECONDARY SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 15		Age 16		Age 17		Age 18		TOTAL						
	M	F	M	F	M	F	M	F	M	F	T				
Western	1078	1019	2096	964	940	1903	980	1016	1995	991	975	1966	4012	3950	7961
Gulf	1042	902	1944	1417	1243	2660	1074	1137	2211	1199	1148	2347	4732	4430	9163
National Capital	4626	4727	9354	3564	3100	6665	3485	2830	6315	4411	3411	7823	16088	14069	30156
Central	2387	2193	4580	2808	2434	5242	2362	2126	4489	2804	2522	5326	10361	9276	19636
Milne Bay	2800	2591	5391	3067	2655	5722	2751	2616	5367	3111	2781	5892	11728	10644	22372
Oro	1771	1535	3306	2033	1758	3791	1814	1479	3293	2128	1867	3995	7746	6638	14385
Southern Highlands	6537	4651	11188	6633	5941	12573	4072	3349	7421	6764	6208	12972	24005	20149	44154
Eastern Highlands	4108	2989	7096	5966	5211	11177	4549	3915	8464	6114	5378	11492	20737	17493	38230
Simbu	1839	1620	3459	3253	3083	6336	2403	2070	4474	3310	2987	6297	10805	9760	20566
Western Highlands	5582	4265	9847	6566	5556	12123	4697	3593	8291	7329	5591	12920	24175	19005	43180
Enga	5336	3872	9208	5124	4502	9626	3165	2632	5797	6062	4832	10894	19687	15837	35524
Morobe	6794	5433	12228	7399	6435	13834	6846	5770	12616	8059	6815	14874	29098	24453	53552
Madang	4567	3273	7839	4847	4415	9262	4392	3623	8015	5498	4709	10207	19305	16019	35324
Sandaun	2524	1822	4345	2752	2074	4826	2430	1786	4216	2553	2276	4829	10259	7957	18216
East Sepik	3844	3605	7449	4939	4821	9760	4358	4164	8522	4677	4858	9535	17817	17448	35265
Manus	667	584	1251	681	646	1327	676	555	1232	611	628	1240	2635	2414	5049
New Ireland	1671	1468	3139	1706	1369	3075	1534	1176	2710	1654	1439	3093	6565	5452	12018
East New Britain	3709	3382	7090	3598	2946	6544	3252	2739	5991	3855	3164	7019	14413	12231	26644
West New Britain	2953	2436	5389	2669	2136	4804	2218	1834	4052	2955	2321	5275	10794	8727	19521
North Solomons	2863	2633	5496	3049	2784	5834	2955	2722	5677	2828	2613	5441	11695	10753	22448
K L Murray	896	765	1661	899	772	1671	774	703	1477	932	739	1671	3501	2979	6480
TOTAL	67591	55766	123357	73934	64821	138755	60786	51838	112624	77848	67261	145109	280159	239685	519845

2007 PROJECTED SECONDARY SCHOOL AGE POPULATION: BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 15		Age 16		Age 17		Age 18		TOTAL					
	M	F	M	F	M	F	M	F	T	M	F	T		
Western	1109	1047	992	966	1958	1044	2052	1019	1003	2022	4128	4060	8188	
Gulf	1050	908	1458	1278	2736	1169	2274	1234	1180	2414	4848	4535	9382	
National Capital	4853	5002	3668	3187	6855	2909	6495	4539	3507	8046	16647	14604	31251	
Central	2432	2235	2889	2503	5392	2186	4617	2886	2592	5478	10637	9516	20153	
Milne Bay	2859	2648	3156	2730	5885	2690	5520	3201	2859	6060	12046	10926	22973	
Oro	1808	1571	2092	1807	3899	1521	3387	2190	1919	4109	7957	6818	14775	
Southern Highlands	6766	4767	6825	6107	12932	3443	7633	6960	6382	13342	24741	20699	45440	
Eastern Highlands	4153	3007	6139	5357	11496	4025	8706	6292	5528	11820	21264	17917	39181	
Simbu	1841	1630	3347	3169	6517	2128	4601	3406	3070	6476	11067	9998	21065	
Western Highlands	5727	4363	6757	5712	12469	3694	8527	7542	5747	13289	24859	19516	44375	
Enga	5539	3999	5272	4628	9900	2706	5962	6238	4967	11205	20306	16300	36606	
Morobe	6950	5542	7614	6616	14229	5931	12976	8293	7006	15299	29902	25095	54996	
Madang	4667	3322	4988	4538	9526	3724	8244	5658	4841	10498	19833	16425	36258	
Sandaun	2582	1858	2832	2132	4964	1836	4336	2627	2340	4967	10542	8165	18707	
East Sepik	3894	3659	5082	4956	10038	4281	8765	4812	4994	9806	18272	17890	36162	
Manus	683	598	701	664	1364	571	1267	629	646	1275	2709	2478	5187	
New Ireland	1714	1514	1756	1407	3163	1209	2788	1702	1479	3181	6751	5609	12360	
East New Britain	3831	3507	3702	3029	6731	2816	6162	3967	3253	7220	14846	12604	27450	
West New Britain	3068	2531	2746	2196	4942	1885	4168	3040	2386	5426	11137	8998	20135	
North Solomons	2929	2694	3138	2862	6000	2798	5839	2910	2687	5597	12017	11041	23058	
K L Murray	922	787	925	793	1718	723	1519	959	760	1719	3603	3062	6665	
TOTAL	69377	57188	76078	66636	142714	62549	53289	115838	80105	69145	149250	288109	246258	534367

2008 PROJECTED SECONDARY SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

AGE GROUPS 15 - 18

PROVINCE	Age 15				Age 16				Age 17				Age 18				TOTAL					
	M		F		M		F		M		F		M		F		M		F		T	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	T	
Western	1141	1077	2218	1020	993	2013	1037	1073	2111	1049	1031	2080	4248	4174	8421							
Gulf	1058	913	1972	1501	1313	2814	1138	1202	2339	1270	1213	2483	4966	4642	9608							
National Capital	5091	5292	10383	3774	3276	7050	3690	2990	6681	4671	3605	8276	17226	15163	32390							
Central	2478	2277	4756	2973	2573	5545	2501	2247	4748	2969	2665	5634	10921	9762	20684							
Milne Bay	2919	2706	5625	3247	2806	6053	2913	2765	5678	3294	2939	6233	12373	11216	23589							
Oro	1846	1609	3455	2153	1858	4011	1921	1563	3484	2253	1973	4226	8173	7003	15176							
Southern Highlands	7003	4886	11889	7023	6278	13301	4311	3539	7850	7162	6561	13723	25499	21265	46763							
Eastern Highlands	4198	3025	7223	6317	5507	11824	4816	4138	8954	6474	5683	12157	21806	18353	40159							
Simbu	1843	1639	3482	3445	3258	6703	2545	2188	4733	3505	3156	6661	11337	10242	21579							
Western Highlands	5876	4463	10339	6953	5872	12825	4974	3797	8771	7761	5908	13669	25563	20041	45604							
Enga	5749	4131	9881	5425	4757	10183	3351	2781	6132	6419	5106	11525	20944	16776	37721							
Morobe	7110	5653	12763	7834	6801	14635	7249	6097	13346	8534	7202	15736	30727	25753	56480							
Madang	4770	3372	8142	5133	4665	9798	4651	3829	8479	5822	4976	10798	20375	16842	37217							
Sandaun	2641	1895	4536	2914	2191	5106	2573	1887	4460	2703	2405	5108	10832	8379	19211							
East Sepik	3944	3714	7658	5230	5094	10324	4614	4401	9015	4952	5134	10086	18740	18343	37083							
Manus	700	611	1312	721	682	1403	716	587	1303	647	664	1312	2785	2545	5329							
New Ireland	1759	1561	3320	1807	1447	3253	1624	1243	2867	1752	1521	3272	6941	5771	12712							
East New Britain	3957	3637	7594	3609	3114	6923	3443	2895	6338	4082	3344	7426	15291	12989	28280							
West New Britain	3188	2630	5818	2826	2257	5083	2349	1938	4287	3128	2453	5581	11490	9278	20768							
North Solomons	2997	2756	5752	3229	2943	6171	3128	2877	6005	2995	2762	5756	12348	11337	23685							
K L Murray	949	809	1757	952	815	1767	820	743	1563	987	781	1768	3707	3148	6855							
TOTAL	71218	58657	129874	78285	68501	146786	64362	54781	119144	82428	71081	153509	296293	253020	549313							

2009 PROJECTED SECONDARY SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

AGE GROUPS 15 - 18

PROVINCE	Age 15				Age 16				Age 17				Age 18				TOTAL			
	M	F	T	M	M	F	T	M	M	F	T	M	M	F	T	M	M	F	T	M
Western	1174	1107	2281	1050	1021	2071	1067	1104	2171	1079	1060	2139	4371	4291	8661					
Gulf	1067	919	1986	1544	1350	2894	1171	1235	2406	1307	1247	2554	5088	4751	9840					
National Capital	5340	5599	10939	3884	3368	7252	3797	3074	6871	4806	3706	8512	17828	15747	33574					
Central	2525	2321	4846	3059	2645	5704	2574	2310	4884	3056	2739	5795	11213	10015	21228					
Milne Bay	2980	2766	5746	3341	2885	6226	2997	2842	5839	3390	3022	6411	12708	11514	24222					
Oro	1865	1648	3533	2215	1910	4125	1976	1607	3583	2319	2028	4347	8395	7192	15588					
Southern Highlands	7248	5009	12256	7227	6454	13680	4436	3638	8075	7369	6745	14114	26280	21845	48125					
Eastern Highlands	4245	3043	7288	6500	5661	12161	4956	4254	9210	6662	5842	12504	22363	18800	41163					
Simbu	1845	1649	3494	3544	3349	6894	2618	2249	4868	3606	3245	6851	11614	10493	22106					
Western Highlands	6029	4566	10595	7154	6036	13191	5118	3904	9022	7986	6074	14059	26287	20580	46866					
Enga	5968	4268	10235	5583	4891	10473	3448	2859	6307	6605	5249	11854	21603	17267	38870					
Morobe	7274	5766	13040	8062	6991	15053	7459	6268	13727	8781	7404	16185	31575	26429	58004					
Madang	4875	3422	8297	5281	4796	10077	4786	3936	8721	5991	5115	11106	20932	17270	38202					
Sandaun	2702	1933	4635	2999	2253	5251	2648	1940	4588	2782	2472	5254	11130	8598	19728					
East Sepik	3995	3770	7765	5381	5237	10618	4748	4524	9272	5095	5278	10373	19220	18809	38028					
Manus	718	625	1343	742	701	1443	737	603	1340	666	683	1349	2863	2613	5475					
New Ireland	1804	1609	3414	1859	1487	3346	1672	1278	2949	1802	1563	3366	7137	5937	13075					
East New Britain	4088	3771	7859	3920	3201	7120	3543	2976	6519	4200	3437	7638	15751	13385	29136					
West New Britain	3312	2733	6045	2908	2320	5228	2417	1992	4409	3219	2521	5740	11855	9567	21422					
North Solomons	3065	2819	5884	3322	3025	6347	3219	2957	6176	3081	2839	5920	12688	11640	24329					
K L Murray	976	831	1808	979	838	1818	844	764	1607	1016	803	1818	3815	3236	7051					
TOTAL	73115	60173	133268	80555	70419	150974	66229	56315	122544	84819	73071	157890	304718	259979	564696					

PROJECTED SECONDARY SCHOOL AGE POPULATION BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 15			Age 16			Age 17			Age 18			TOTAL		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Western	1243	1170	2413	1112	1079	2191	1130	1166	2296	1143	1120	2263	4628	4534	9162
Gulf	1084	930	2014	1635	1427	3062	1239	1305	2545	1383	1318	2701	5342	4980	10322
National Capital	5877	6267	12143	4112	3559	7671	4021	3249	7269	5099	3916	9006	19099	16991	36090
Central	2622	2410	5032	3239	2795	6034	2725	2441	5166	3235	2895	6130	11821	10541	22362
Milne Bay	3107	2889	5995	3538	3049	6586	3173	3004	6177	3589	3193	6782	13407	12134	25541
Oro	1965	1728	3693	2346	2018	4364	2092	1698	3791	2455	2143	4598	8858	7587	16446
Southern Highlands	7764	5262	13026	7652	6820	14472	4697	3845	8542	7803	7127	14931	27916	23055	50971
Eastern Highlands	4339	3080	7418	6883	5983	12865	5248	4495	9743	7054	6174	13228	23523	19731	43254
Simbu	1848	1669	3517	3753	3540	7293	2772	2377	5149	3819	3429	7248	12192	11015	23207
Western Highlands	6346	4778	11125	7575	6379	13954	5419	4125	9544	8456	6418	14874	27796	21701	49498
Enga	6430	4554	10984	5911	5168	11079	3651	3022	6673	6994	5547	12541	22986	18291	41277
Morobe	7612	5999	13611	8536	7388	15924	7898	6624	14522	9298	7824	17122	33344	27835	61179
Madang	5092	3526	8617	5592	5068	10661	5067	4159	9227	6343	5406	11749	22094	18159	40253
Sandaun	2828	2011	4839	3175	2381	5556	2803	2050	4854	2946	2613	5558	11752	9055	20807
East Sepik	4100	3884	7984	5698	5534	11232	5027	4781	9808	5395	5577	10973	20220	19776	39997
Manus	754	655	1409	786	741	1527	780	638	1418	705	722	1427	3025	2755	5780
New Ireland	1899	1711	3610	1969	1572	3540	1770	1350	3120	1908	1652	3560	7546	6284	13831
East New Britain	4362	4056	8418	4150	3382	7533	3751	3145	6896	4447	3633	8080	16711	14215	30927
West New Britain	3575	2950	6525	3079	2452	5531	2559	2106	4665	3409	2665	6073	12622	10172	22794
North Solomons	3208	2950	6158	3518	3197	6715	3409	3125	6534	3263	3000	6263	13397	12272	25670
K L Murray	1033	879	1912	1037	886	1923	893	807	1700	1075	848	1924	4039	3420	7459
TOTAL	77089	63355	140444	85295	74418	159713	70126	59513	129639	89810	77220	167030	322319	274506	596826

PROJECTED SECONDARY SCHOOL AGE POPULATION: BY AGE, GENDER AND YEAR

AGE GROUPS 15 - 18

PROVINCE	Age 15		Age 16		Age 17		Age 18		TOTAL						
	M	F	M	F	M	F	M	F	T	M	F	T			
Western	1279	1203	2482	1144	1109	2253	1163	1199	2362	1176	1151	2327	4762	4661	9423
Gulf	1093	935	2028	1682	1467	3149	1275	1342	2617	1424	1355	2778	5474	5099	10573
National Capital	6165	6630	12795	4231	3659	7890	4138	3339	7477	5237	4026	9263	19770	17655	37425
Central	2672	2456	5127	3333	2873	6206	2804	2510	5314	3329	2976	6305	12138	10814	22952
Milne Bay	3172	2952	6124	3641	3134	6774	3265	3088	6353	3693	3283	6976	13771	12457	26228
Oro	2006	1769	3775	2414	2075	4468	2153	1746	3899	2526	2203	4729	9100	7793	16892
Southern Highlands	8036	5394	13429	7874	7011	14885	4833	3953	8786	8029	7327	15356	28772	23685	52457
Eastern Highlands	4386	3098	7484	7082	6150	13232	5400	4621	10021	7259	6347	13605	24127	20216	44343
Simbu	1850	1679	3529	3862	3639	7501	2853	2444	5296	3929	3525	7454	12494	11286	23781
Western Highlands	6511	4888	11400	7795	6558	14353	5576	4241	9817	8701	6598	15299	28583	22285	50869
Enga	6674	4704	11378	6083	5313	11396	3757	3106	6863	7197	5702	12899	23710	18826	42536
Morobe	7787	6119	13906	8783	7595	16379	8127	6809	14936	9567	8043	17610	34265	28567	62832
Madang	5204	3579	8782	5754	5210	10965	5214	4276	9490	6527	5557	12084	22699	18622	41321
Sandaun	2893	2052	4944	3267	2447	5715	2885	2108	4992	3031	2686	5717	12076	9292	21368
East Sepik	4153	3942	8095	5863	5689	11553	5173	4915	10088	5552	5734	11285	20741	20280	41021
Manus	773	670	1443	808	762	1570	803	655	1458	726	742	1468	3110	2829	5939
New Ireland	1949	1764	3713	2026	1616	3641	1821	1388	3209	1964	1698	3662	7759	6465	14225
East New Britain	4506	4206	8712	4271	3477	7748	3660	3233	7093	4576	3734	8311	17213	14650	31863
West New Britain	3715	3065	6780	3168	2521	5669	2633	2165	4798	3507	2739	6247	13023	10489	23513
North Solomons	3282	3018	6300	3620	3286	6906	3507	3213	6720	3357	3084	6442	13766	12601	26368
K L Murray	1063	903	1967	1067	911	1978	919	830	1749	1107	872	1979	4156	3516	7672
TOTAL	79170	65025	144194	87768	76502	164270	72160	61179	133339	92414	79382	171797	331512	282038	613600

2013

PROJECTED SECONDARY SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 15		Age 16		Age 17		Age 18		TOTAL					
	M	F	M	F	M	F	M	F	M	F				
Western	1316	1236	1177	1140	2317	2317	1197	1232	2429	2393	4900	4792	9692	
Gulf	1101	941	1731	1508	3239	3239	1312	1380	2692	2858	5610	5221	10831	
National Capital	6467	7015	4354	3761	8115	8115	4258	3433	7691	9527	20467	18348	38815	
Central	2723	2502	3430	2954	6383	6383	2885	2580	5465	6485	12463	11095	23558	
Milne Bay	3239	3017	3746	3222	6968	6968	3360	3174	6535	7175	14145	12788	26933	
Oro	2048	1812	2484	2133	4617	4617	2216	1795	4010	4864	9348	8004	17351	
Southern Highlands	8317	5529	8102	7208	15310	15310	4974	4063	9037	15794	29655	24332	53987	
Eastern Highlands	4434	3117	7288	6322	13610	13610	5556	4750	10307	13993	24748	20714	45461	
Simbu	1852	1689	3974	3741	7714	7714	2936	2512	5448	7667	12805	11565	24370	
Western Highlands	6681	5001	8021	6741	14762	14762	5738	4360	10098	15736	29393	22885	52277	
Enga	6928	4860	11787	5462	11721	11721	3866	3193	7059	13267	24458	19377	43835	
Morobe	7966	6241	14208	7808	16846	16846	8363	7000	15363	18113	35212	29317	64529	
Madang	5318	3632	8950	5356	11277	11277	5365	4396	9761	12429	23321	19097	42418	
Sandaun	2959	2093	3362	2516	5878	5878	2968	2167	5135	5880	12408	9536	21944	
East Sepik	4207	4001	8209	5849	11882	11882	5323	5052	10375	11607	21276	20796	42072	
Manus	792	685	1477	783	1615	1615	826	674	1500	1509	3197	2904	6101	
New Ireland	2000	1818	3818	1661	3745	3745	1874	1427	3301	3766	7979	6652	14630	
East New Britain	4655	4361	9016	3575	7969	7969	3972	3324	7295	8548	17731	15098	32829	
West New Britain	3860	3185	7044	2591	5851	5851	2710	2225	4935	6425	13438	10817	24255	
North Solomons	3357	3087	6445	3378	7103	7103	3609	3303	6912	6625	14146	12939	27085	
K L Murray	1094	929	2023	936	2034	2034	946	853	1799	2035	4277	3614	7891	
TOTAL	81315	66750	148065	90314	78644	168958	74252	62892	137145	95094	81605	176699	340975	630867

PROJECTED SECONDARY SCHOOL AGE POPULATION : BY AGE, GENDER AND YEAR

A G E G R O U P S 15 - 18

PROVINCE	Age 15			Age 16			Age 17			Age 18			TOTAL		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
	Western	1354	1271	2625	1211	1172	2383	1231	1267	2498	1245	1216	2462	5042	4926
Gulf	1110	947	2057	1781	1550	3332	1350	1418	2769	1507	1432	2939	5749	5347	11096
National Capital	6784	7422	14205	4480	3867	8347	4381	3529	7910	5545	4255	9800	21190	19072	40262
Central	2774	2550	5324	3529	3036	6565	2969	2652	5621	3525	3145	6670	12798	11383	24181
Milne Bay	3307	3083	6390	3855	3312	7167	3458	3263	6721	3910	3469	7379	14529	13128	27657
Oro	2091	1855	3947	2556	2192	4748	2280	1845	4125	2675	2328	5003	9602	8221	17823
Southern Highlands	8608	5667	14275	8337	7409	15746	5118	4177	9295	8502	7743	16245	30565	24996	55561
Eastern Highlands	4483	3135	7619	7499	6499	13998	5718	4883	10601	7686	6707	14393	25385	21225	46611
Simbu	1854	1699	3553	4089	3845	7934	3021	2582	5603	4161	3725	7886	13124	11852	24976
Western Highlands	6854	5116	11970	8254	6930	15184	5904	4482	10386	9213	6973	16186	30225	23500	53726
Enga	7191	5020	12211	6440	5615	12055	3978	3283	7261	7620	6026	13646	25229	19944	45173
Morobe	8150	6366	14516	9300	8026	17327	8605	7196	15801	10130	8500	18630	36185	30088	66274
Medang	5435	3687	9122	6093	5506	11599	5521	4519	10040	6911	5873	12784	23960	19584	43544
Sandaun	3027	2134	5162	3460	2586	6046	3054	2227	5282	3209	2838	6048	12750	9786	22537
East Sepik	4262	4061	8323	6208	6013	12221	5477	5194	10671	5878	6059	11938	21826	21327	43152
Manus	812	701	1513	856	805	1661	850	693	1543	769	784	1552	3287	2982	6269
New Ireland	2052	1875	3926	2145	1707	3852	1928	1467	3395	2079	1795	3874	8204	6843	15047
East New Britain	4809	4523	9331	4522	3675	8197	4087	3417	7504	4846	3946	8792	18263	15560	33823
West New Britain	4010	3309	7319	3354	2664	6018	2768	2287	5076	3714	2895	6608	13866	11155	25021
North Solomons	3435	3156	6593	3833	3473	*7306	3714	3395	7109	3555	3259	6814	14536	13286	27822
K L Murray	1126	955	2081	1130	962	2092	973	877	1850	1172	922	2093	4401	3715	8116
TOTAL	83528	68533	152061	92933	80846	173779	76406	64653	141059	97852	83890	181742	350719	297922	648641

