

# Table of Contents

Foreword.....	2
Some notes on the statistics used .....	3
The Plan for Universal Basic Education .....	4
Pressure for Change.....	5
<b>Elementary.....</b>	<b>11</b>
<i>Introduction.....</i>	<i>11</i>
E1    Access .....	11
E2    Quality Curriculum and Monitoring.....	14
E3    Quality Teacher Education and Training.....	16
E4    Management.....	19
Elementary challenges .....	20
<b>Primary.....</b>	<b>22</b>
P1    Access .....	22
P2    Quality Curriculum and Monitoring.....	27
P3    Quality Teacher Education and Training.....	31
P4    Management.....	32
Primary challenges .....	33
<b>Secondary.....</b>	<b>34</b>
S1    Access .....	34
S2    Quality Curriculum and Monitoring.....	37
S3    Quality Teacher Education and Training.....	37
S4    Management.....	38
Secondary challenges .....	38
<b>Flexible, Open and Distance Education.....</b>	<b>39</b>
F1    Access.....	39
F2    Quality Curriculum and Monitoring.....	39
F3    Quality Teacher Education and Training.....	40
F4    Management .....	40
<b>Technical Vocational Education and Training .....</b>	<b>40</b>
TVET 1    Access .....	40
TVET 2    Quality Curriculum and Monitoring .....	41
TVET 3    Quality Teacher Education and Training .....	43
TVET 4    Management.....	44
TVET challenges .....	44
<b>Administration.....</b>	<b>45</b>
A1    Organisational improvement .....	45
A2    Human Resources Management .....	46
A3    Financial management.....	47
A4    Information communications technology.....	47
A5    Communications systems .....	48
Administration challenges.....	48
<b>Donor support.....</b>	<b>49</b>
AusAID.....	49
The European Union.....	50
Asian Development Bank .....	50
Japan International Cooperation Agency (JICA) .....	51
New Zealand Aid .....	51
UN organisations / UNICEF.....	51
Indonesia / Papua New Guinea education support program .....	51
<b>Finances .....</b>	<b>51</b>
<b>The Way Forward .....</b>	<b>52</b>

## Foreword

This book is in a number of parts. First, it looks back 15 or twenty years and reflects briefly on the reasons for such a push for a whole scale restructuring of the education system in Papua New Guinea. Whilst there has been a lot of criticism of late of some of the changes that have been made, it does no harm in looking back and trying to understand the very good reasons that there existed for these changes. I now feel after so many years that the education reform structure has been accepted by the people in the country as well as by Government. It has taken a long while for education authorities, at all levels of the system, to adapt to these changes and to work out the best way of implementing these ideas. I believe that we have now done this and although there are many problems still to be faced, we can see light at the end of the tunnel.

Those initial pressures for change led to the development of the first National Education Plan – 1995 to 2004. This brief looks back on that plan, how it was implemented, and considers the many other plans that led on from there.

The major section of the brief looks at the progress that has been made since the *National Education Plan, 2005 to 2014*, was developed and endorsed by Government in late 2004. The analysis of the progress is by no means self adulatory and many challenges are identified that will have to be addressed over the next few years. It is only by being self critical, and by learning from our mistakes, that we will be able to move on.

This is particularly important as Department officials, in collaboration with our many friends in the donor community, are working on a plan to achieve Universal Basic Education in a time frame rather faster than that envisioned in the National Education Plan.

**Dr. Joseph Pagelio**

Secretary for Education

May, 2008

## Some notes on the statistics used.

The figures have largely been taken from the 2007 education census. This census collected student age data for the first time as well as large amounts of previously unavailable data about teachers. More detailed figures disaggregated by province and district are available in a companion document.

Approximately 85% of schools responded to the census – a figure that was considered acceptable given that it was the first time that such an exercise had been undertaken. In order that realistic figures could be established, particularly in light of the needs of the Task Force looking at Universal Basic Education, it was decided to estimate the enrolments and staffing from those schools that did not submit their enrolment and staffing data. This was so that reasonable estimates could be made of the enrolment rates – both gross and net.

Enrolments from missing schools that were known to be operating in 2007 were taken from the 2005 enrolment returns from those schools.

Staffing in the missing schools was based upon the teacher pupil ratio of the other schools in the province which did submit returns.

The age structure of the children attending the missing schools was assumed to be the same as in those schools in the province that did submit returns. So, the age structure of the schools that submitted data was applied to the estimated enrolments of those that did not.

District age specific population was estimated by applying the age structure of the province across each of the districts – so, the same percentage of children were deemed to be 7 years of age in each of the districts as in the province as a whole.

The returns for 2006 are not deemed to have been accurate enough to have been used and so averages have been taken from the 2005 and 2007 returns in order to estimate the 2006 figure.

**Michael Peter**

Senior Statistician

## The Plan for Universal Basic Education

In mid 2007, the Minister for Education established a UBE Task Force to be chaired by the Secretary for education and to have a wide representation from all stakeholders as well as the donor community. This Task Force was tasked to complete a plan for achieving Universal Basic Education in a time frame rather faster than that envisioned in the National Education Plan. This plan will in no way undermine the outcomes, strategies and activities that are included in the National Education Plan.

It is considered that the earlier achievement of National Education Plan outcomes will be possible for two reasons. First, the economic situation in the country is considerably healthier than it was at the time that the National Education Plan was developed. This can be attributed to both better fiscal management and improvements in commodity prices. Second, the World Bank is making available considerable funding to support countries who are experiencing problems in reaching UBE. These funds are being made available through what is known as the fast Track Initiative. It is expected that the UBE Plan will be presented to the World Bank, following endorsement by the National Executive Council, for possible support.

## Pressure for Change

To understand the education system as it is now it is first necessary to appreciate some of the reasons behind the implementation of the major changes that have taken place over the last 15 years. These changes have been labelled, and still are by some, the 'education reforms'. This system is now well entrenched and the bulk of the children and students in our formal education system have been through at least some part of it.

The pressure on the education system in the late 1980s had been building for many years and stemmed from the dilemma that has always faced the system. It was this dilemma that provided the backdrop for the 1990 sector review. The dilemma is that the education system has been expected to provide a relevant education for many different sections of society.

Firstly, there are the approximately 85% of the population who will remain in their own communities. Their major source of employment will be their own subsistence and small community based commercial enterprises. The second group is the 15% or so who will find formal employment in the slowly increasing government, business and service industries. Further to these two major groups, there are the small number of children, who, like those of any other country in the world, have the ability to perform at top international standards. It is vitally important that this group, however small, continue to receive the education that they require to fully realise their potential. The final group is the small but growing number of landless urban youth who have no villages to return to and no prospects of formal employment in an urban situation. This is the group that poses the greatest potential for political instability. It is often argued that the increasing law and order problem in the country, in particular in Port Moresby, has been caused by the inability of the education system to adequately cater for this group of people.

This dilemma is summarised by one of the four National Objectives assigned by the National Executive Council to the Department of Education:

*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 the village community, for formal employment, or for continuation to further education and training.*

### Basic education

In order to fully appreciate the pressures, there needs to be a thorough understanding of a long term goal of Government – that of Universal Basic Education (UBE).

There are three components to Universal Basic Education in a Papua New Guinean context:

- that all children should enter school at a specified age (age six years in prep),
- that all children complete the elementary and primary cycles of education that constitute a basic education, and

- that all children reach a required standard of literacy and numeracy at the end of these years of education.

There is, then, one component for access, one for retention and one for quality. The target for achieving this has been changing over time but it is now projected that there will be an enrolment rate in basic education of around 80% by 2015.

The country had for many years managed to enrol a very large number of children into the system and these numbers were rising at an annual rate of about 4.2% through the 1980s – a growth that was higher than that of the population. There were years when the number in Grade 1 was greater than the number of seven year olds, the recommended age of entry into Grade 1 at the time, in the country.

These figures suggested that the country had enough places to satisfy the first of the requirements of UBE. However, the major problem has always been that there have been many 8, 9 and even 10 year old children entering school for the first time, be it into the elementary prep grade or into Grade 1. As will be seen we are now able to quantify this for the first time. There were many schools in remote areas that had only biennial or even triennial intakes and in urban areas there is often a genuine shortage of places in schools for children of a 'correct' age. It has also got to be accepted that there are still a few areas in the country where children do not have an opportunity to attend school at all. We must always be very careful never to forget these children.

It is unfortunate that education administrators around the country in the past have not shown a great deal of initiative when looking for solutions to these problems. There has been a resistance to change. This is unusual in a country that has gone through a greater period of change than most since the middle of the 20th century. The major education plans in Papua New Guinea – one from 1995 to 2004 and the most recent one, *Achieving a Better Future*, have started to address these problems.

The main obstacle to attaining UBE is retention. As we have seen, there are many children starting school but large numbers of them have been dropping out before completing the primary stage of education. Figures from the 1980s suggested that only some 60% of children who started Grade 1 managed to complete Grade 6. The two education plans have both had improving retention rates as a major target to be achieved. It should always be remembered that it will be impossible to have 100% retention between Grades 1 and 6, or Grades 3 and 8 which is now primary, until such time as compulsory education is introduced.

There are many reasons given for the very high drop out rates experienced in primary education. These reasons include tribal fighting, the distance that many children have to travel to school, a lack of interest, parents taking children out of school during certain times of the year, and school fee problems.

### Post primary education

The other major pressure for change was related to secondary education. The most significant of these was that of access. This was the case at both of the major system interfaces – Grade 7 and Grade 11.

A large number of high schools had been opened throughout the 1970s and the 1980s but this had very little impact on the access rates. Transition rates have traditionally been measured as the percentage of children completing Grade 6 who could gain a place in Grade 7. Throughout the 1980s less than 40% of children who completed Grade 6 could be offered a place in Grade 7. Parents were becoming increasingly vocal about the lack of opportunity for their children and this was reflected annually in the 'Letters to the Editor' columns of the national newspapers.

Lower secondary education was largely made up of boarding institutions with approximately 80% of students living in such institutions. This made for the very high unit costs that were consistently noted in reports about education in Papua New Guinea.

Pressure from parents and provincial leaders intensified as the transition rate showed little or no sign of improving. Partly as a result of this, the average Grade 7 class size rose to more than 50 in the early 1990s. There were also worrying trends in a number of provinces where schools were being expanded way beyond their capacity. In addition, new schools were being opened with totally inadequate facilities. These last two trends were particularly prevalent in the Highlands region where the demand for education was so high, and opportunities were rather less than in other parts of the country.

The situation regarding access at the upper secondary level was even worse than that at lower secondary. The percentage of children progressing from Grade 10 to Grade 11 had remained constant for many years at about 10%. It was in danger of dropping below that. This was because no new National High Schools – at the time these were the only public institutions offering Grades 11 and 12 - were being opened and the number of Grade 10 graduates was rising. The only increase in places in Grade 11 came when the annual intake in each of the National High Schools was raised from 200 to 250. This happened in the mid 1980s. The participation of girls was also an increasing concern with only 30% of the intake being female. This was unlikely to change because of the male / female dormitory situation in the schools. All in all only about 1.5% of Papua New Guineans had an opportunity of a full secondary education.

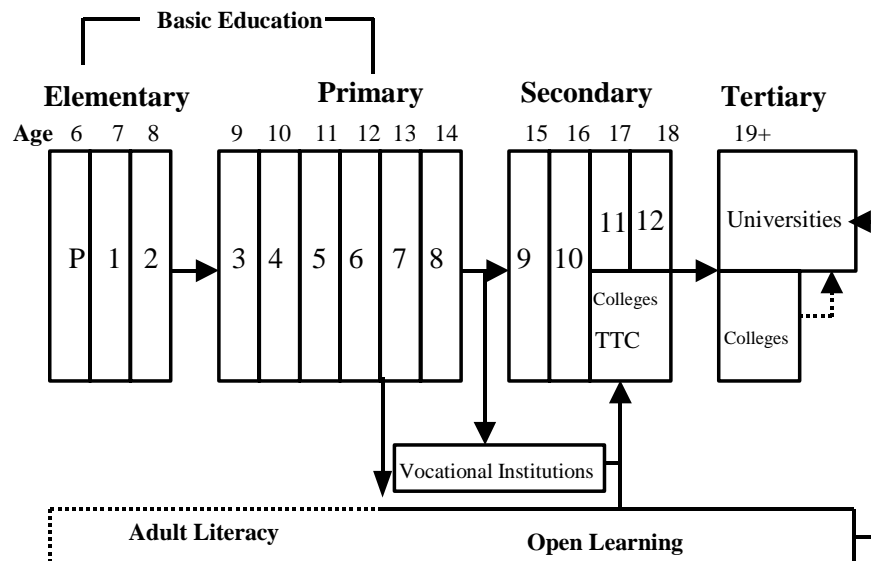
The NEC made a decision in 1990 to build five new National High Schools. These were to be in the NCD, and the Morobe, Oro, New Ireland and Western Highlands provinces. The implementation of this decision was slow, even by PNG standards and it was rescinded in 1994. The schools proposed for the NCD and Morobe were not included in this decision because negotiations for donor funding were so far advanced that it would be difficult to abort.

In addition, there was also the Australian Secondary School Scholarship Program that was extremely popular but catered for only a very small number of students and it was quite inordinately expensive. This was a classic example of boomerang aid.

The vocational centre were becoming increasingly run down and considered as being second class high schools with no accreditable certification and no articulation into any other part of the system.

The Education Sector Study of 1990 looked at these tensions that were building within the system and proposed a totally new look for education in the country. This involved the restructuring of the formal education system from the pre - primary level through to upper secondary. It was designed to directly address most of the systemic weaknesses and problem areas identified in the sector review. As we have seen the 6-4-2 structure had been characterised by high attrition rates at the primary level and a serious access problem at the secondary level. The two major bottlenecks were at Grade 7 and Grade 11.

*The education structure*



At the first level, village or settlement-based elementary schools are being formalised. Annual intakes should become possible allowing for the reduction of staggered intakes. This, in time, should solve the problem of over age entry. Enrolment at the prep level begins at six years of age. It was intended that these schools, where appropriate, should build on existing Tok Ples Pre Skul (TPPS) initiatives and provide a preparatory year's education (EP) followed by Grades 1 and 2. The language of instruction in elementary schools is the language of the community – whether it be the local vernacular or a lingua franca. This allows for acquisition of literacy in the language that the children speak. Prep curricula emphasise initial literacy, numeracy, ethics, morality and cultural bonding. The school day is of four hours duration.

To make the curriculum more relevant, to expand enrolments, and to help improve retention in elementary schools, these grades have an integrated curriculum based on the child's own culture and community. In an increasing number of



schools the teaching is done by one teacher using multi-grade teaching methods which is becoming an integral part of the teacher education program.

The transition to English begins in the third year. A new more relevant, integrated activity-based curriculum has been adopted that should use locally developed materials.

The elementary schools act as feeder schools for primary schools. Introducing elementary schools in the villages frees classroom space and other facilities within the primary schools. This allows for the Grades 7 and 8 classes to be relocated from the high schools. During this transition period there would be no need for any great increase in either the enrolments or number of teachers in the primary schools. Six years of primary education could be provided through to Grade 8 without any institutional barriers. It is hoped that this will help overcome the problem of the loss of students, particularly girls, from the system after Grade 6. To improve the quality and relevance of education, the primary curriculum is becoming subject-specific. A strong vocational component has been developed for the upper grades and a new examination system formulated for graduation from Grade 8 and to enable selection for Grade 9. Teachers currently within the system were offered the opportunity to upgrade their qualifications to diploma level through an inservice program. New graduates from the Teachers' Colleges have long been diploma holders who are equipped to teach in the upper primary grades.

The facilities freed up by relocating Grade 7 and 8 classes could be used in one of two ways. In the majority of schools there was an immediate increase in the number of Grade 9 and 10 places - up to double in most cases. At the same time Grades 11 and 12 are being developed at selected schools. At the time of the first National Education Plan it was a government objective to have only one such school in each province by 2004.

The curriculum was to be broadened to include more technical, agricultural, commercial and scientific content. Some vocational centres will become part of the secondary system. Others will follow a dual system with emphasis on entrepreneurship programs and competencies developed towards trade tests that lead to nationally recognised qualifications. Open learning will provide an alternative opportunity for secondary education.

The net effect of all this on schooling is greatly increased access at all grades. The major expenditures required are the upgrading of facilities and provision of materials at the primary and secondary levels, and the cost of elementary school teacher salaries. The unit costs of education in Grades 7 through to 12 will be reduced through the increased enrolments utilising facilities at existing primary and provincial high schools. This reduction is further enhanced by the almost complete abolition of boarding students in Grades 7 and 8.

The first National Education Plan was endorsed by Government and finally launched in 1996. This was largely a Department of Education developed document leaning heavily on the findings of the education sector study and the endorsement of the Council of Ministers from their meeting in Madang in 1992. This plan set extremely ambitious system targets and looked to complete the

restructuring of the system by 2004. The plan was reviewed at its mid term, critically assessed the progress made and adapted many of the targets.

The implementation phase of this National Education Plan was confused to a great extent by the almost contemporaneous passage of the Organic Law on Provincial Governments and Local-level Governments. The effect of this was that the 'education reform' and the 'organic law reforms' became mixed up in some people's minds. Due to the organic law changes much greater responsibility for the planning and management of the education system rested with the provincial and local-level governments. The Department supported the provinces in the completion of their provincial education plans but many were left incomplete.

The more recent National Education Plan, *Achieving a Better Future*, was completed following a much more consultative process. It builds on the previous plan and addresses many of the problems and concerns that have arisen as a result of the implementation of that plan. The next part of this book looks at the implementation of this plan and some of the challenges that still need to be faced.

## Elementary

### *Introduction*

There has been an enormous amount of criticism of elementary education in recent years. This is not unexpected and many have been surprised that such criticisms had not been expressed earlier. Whilst much of this has been unfair and ill informed it would be wrong in a report such as this not to look at the issues that have been raised.

Equally, the report should also acknowledge many of the positives that have happened and never forget the enormous achievement of putting in place an entirely new part of the education system in such a short period of time. This was done without the support required from any of the major players such as the National Government, the Department of Education, the Provincial Governments or the Local-level Governments. It should be borne in mind that in 1994 when the first children were admitted into prep in the Milne Bay Province, followed the next year by New Ireland, that there was no established teacher training program, that there was no approved curriculum, and that there had been no wide spread program of awareness. Elementary schools are now, with certain reservations, broadly accepted as a part of the formal education system and many more children are entering the elementary preparatory grade than are entering Grade 1 in the 'old' system.

### *E1 Access*

The table below presents the latest enrolment data that is available, for 2007, and the preparatory grade admission rates. The gross rate is the number enrolled in elementary prep as a percentage of the 6 year old population. The net rate is the number of 6 year olds enrolled in elementary prep as a percentage of the 6 year old population.

*Elementary school enrolment and prep enrolment rates by gender, 2007*

	Male	Female	Total	% age female
Prep	72867	66373	139240	47.7%
Grade 1	57263	50758	108021	47.0%
Grade 2	51017	43581	94598	46.1%
Total	181139	160720	341859	47.0%
Gross admission rate	77.3%	77.0%	77.2%	
Net admission rate	11.2%	11.9%	11.5%	

There are still a number of provinces with a gross enrolment rate greater than 100%. This means that there are more children in elementary prep than there are six year old children in the province. This could happen for a number of reasons. First, it could be that the number of children enrolled has been overstated, second it could be that the census data is underestimated or, finally, it could be that there are large numbers of children enrolled who are not six years of age. These are usually thought to be over age children but there is also a suggestion that in some

parts of the country children are enrolled at a younger age than 6 and then repeat the year. This means that these children are counted in each of the years that they enrolled.

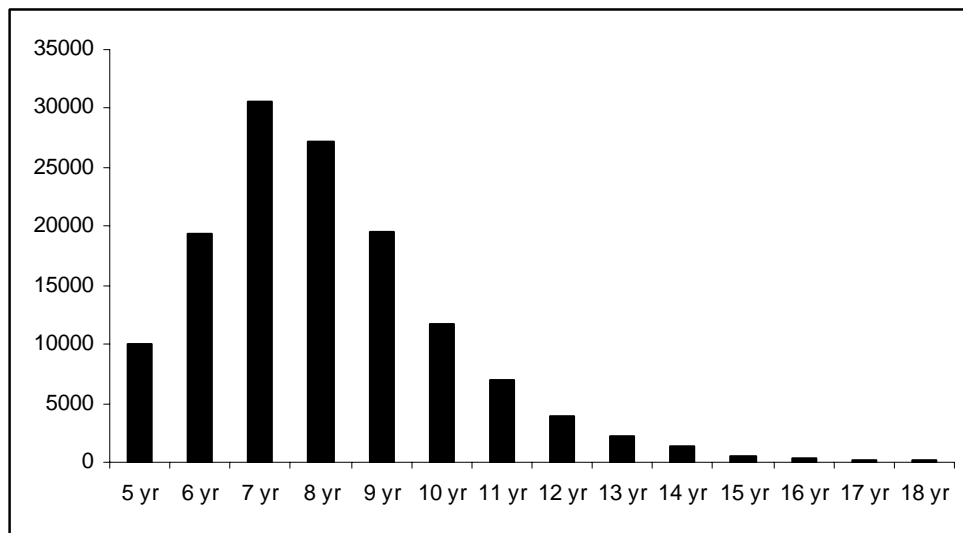
The National Education Plan required that there be 360 new elementary prep classes established each year in order that the target of all 6 year old children being in school by 2012 could be met. The table below gives for recent years the elementary prep enrolment data for the nation. Columns 2, 3 and 4 give enrolment figures for each year by gender, column 5 shows the increase in enrolment and the final column gives an estimate of the number of new classes created based upon the National Education Plan assumption of 28 children per class.

*Elementary prep enrolment by gender, 2002 to 2007*

	Male	Female	Total	Increase	Estimated no. of new prep classes
2002	50376	44745	95121	21757	777
2003	53970	47749	101719	6598	235
2004	57490	50503	107993	6274	224
2005	60712	53730	114442	6449	230
2006	66,905	59,960	126,833	12,391	442
2007	73098	66189	139224	12,391	442

The enormous increase in 2002 was both at a time when the Elementary Teacher Education Support Project was operating (see E3 below) and was also an election year that came along with a free education pledge. These may both be reasons for the sharp rise in enrolment

The 2007 education census was the first to have taken account of the age of children and has come up with some interesting statistics that were previously unavailable. In particular interest is the number of children enrolled in elementary prep who are outside of the 'correct' age group. The chart below shows the number of children by age enrolled in prep. They should be 6 years of age. It is very important that this particular indicator be monitored closely in future years.



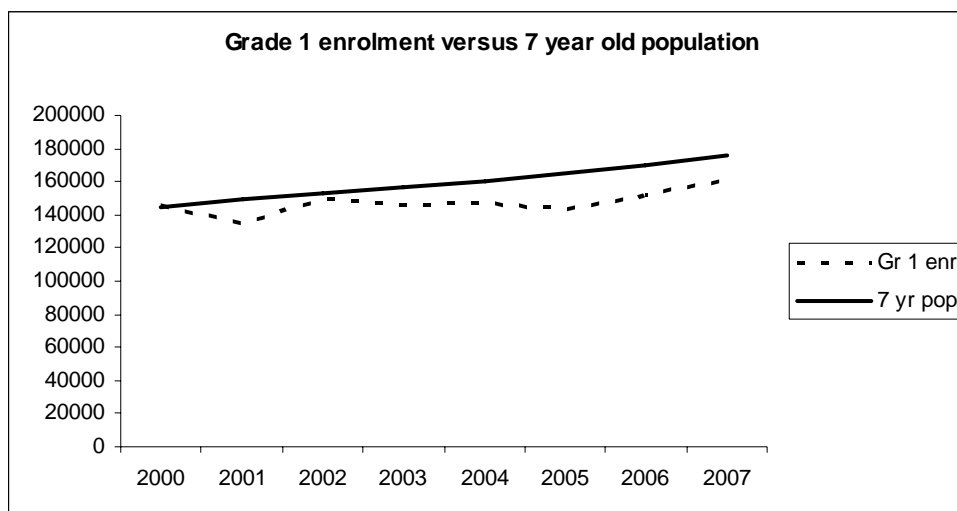
The country will never reach true Universal Basic Education until such a time that the very large number of over age children are no longer entering the elementary prep grade. Whilst it was hoped that the introduction of village based elementary education would overcome the problems of over age entry, it is clear that this has not been the case. Some drastic action needs to be taken if this problem is not to continue indefinitely. One way of doing this would be to determine a year beyond which only children of the correct age will be allowed to be admitted into elementary prep. The logical time for this to be instituted would be 2012, which is the target year for all 6 year old children to be enrolled in elementary prep.

The type of school buildings that are being used varies enormously and there are still no standard classrooms although a number of provinces have included in their provincial plans the need to develop such standards. Some children are still being taught under trees. There are also many examples of church and other community buildings being used for elementary school classes. This is not necessarily a bad thing and the system should be looking more towards multiple uses of facilities. In the urban areas it must be acknowledged that many classes are being taught in extremely cramped conditions. The Local-level Governments have not provided the support that is required of them and this has had a detrimental effect on elementary schooling. On the other hand, there have also been some marvellous examples, mostly in the rural areas, of community self help in the construction of elementary schools. It has to be hoped that now with the highly publicised large sums of money now available in the districts that a fair share will be directed towards the needs of the elementary schools.

The table and chart below show the number of children in Grade 1, either in the elementary schools or in the primary schools, and compares this with the number of children in the 7 yr age group. These figures suggest that the system is actually providing opportunities for slightly less children to enrol in school than it was a few years ago.

*Grade 1 enrolment versus 7 year old population, 2000 to 2005*

	Gr 1 enr	7 yr pop	Gr 1 GER
2000	146137	145123	100.7%
2001	135193	149116	90.7%
2002	148920	153224	97.2%
2003	146083	156489	93.4%
2004	147436	160774	91.7%
2005	142947	165184	86.5%
2006	152,263	170,435	89.3%
2007	161,578	175,685	92.0%



The table below provides information on elementary teachers. The overall pupil teacher ratio is a little bit higher than the target set in the National Education Plan.

*Elementary school staffing by gender, 2007*

	Male	Female	Total	TP ratio	%age fem
Prep	2058	1725	3783	36.8	45.6%
Grade 1	1765	1371	3137	34.4	43.7%
Grade 2	1855	1264	3118	30.3	40.5%
Total	5678	4360	10038	34.1	43.4%

*E2 Quality Curriculum and Monitoring*

A curriculum has been completed and distributed to all schools as a part of the Curriculum Reform Implementation Project. Unfortunately, not all schools have received their materials. Some of these schools have been new establishments whilst others have been older schools. Ideally, all materials will be distributed directly to the schools but this has not always been possible. Elementary school materials are now distributed via their feeder community or primary schools. One of the Curriculum Reform Implementation Project impact studies found that unregistered schools put undue pressure on the distribution exercise by demanding materials to which they were not entitled. This study also stated that provincial record keeping must be improved greatly to achieve a higher success rate in future rounds of distribution.

The materials distributed to all schools include syllabuses and teacher guides, activity books, resource books as well as all relevant policy documents and HIV AIDS titles.

In service has been provided to all new teachers on the reform curriculum and some, but by no means all, serving teachers have received the support that they require from the Department of Education and delivered through the Papua New Guinea Education Institute.

The rationale for the elementary schools is that children should be taught to read and write in the language that they speak. This is clearly recognised in the

*Language Use In Schools Policy.* A number of provinces have questioned this in their provincial education plans. There are a number who wish to use *tok pisin* as the language of instruction, which the policy would suggest is acceptable provided that it is the language that is used by the children, and by some others who wish to use English from a much earlier grade, which is rather more difficult to justify. There are still problems associated with the production of orthographies and a number of schools have been established without orthographies having been developed. This issue of language in school is discussed in greater detail in the elementary challenges section.

The Pacific Regional Initiatives in Developing Basic Education (PRIDE) project is supporting the Department of Education and the provinces through providing funds for the development of further orthographies. The development of appropriate reading materials for the elementary schools in the form of books, charts and pamphlets is as important as orthography development.

Elementary inspections have been conducted with a strong community input at both the school level and then at the ratings conferences. Some teachers have received adverse reports due to comments from the community representatives. These comments have usually been related to attendance at school and the commitment of the teacher to cultural activities. The ratings conferences are held regionally and there is PNGTA, community, church and community representation at these gatherings. There are further problems with the inspections system in that the system of granting eligibility to teachers, who are performing well, a system that works well in the other sectors, is not entirely appropriate for elementary teachers. This is because of the fact that, by their very nature, elementary teachers are not necessarily mobile and are not able to teach in schools outside of their own language group. An alternative system of supervision maybe needs to be considered for the elementary teachers.

It is not easy to make any definitive judgement regarding the effectiveness of the reform curriculum in elementary education although a number of impact studies have been commissioned by the Curriculum Reform Implementation Project and undertaken by independent sub contractors. These were usually consortia of research and academic institutions in PNG and Australia.

Probably the most important of all these studies was a six-year (2001 to 2006) longitudinal study looking into the impact of the structural and curriculum reforms on teaching, learning, and the perceptions of the community. It has been undertaken in twelve selected school sites representing the four regions of the country and designed to provide evidence of how the structural and curriculum reforms improve students' learning, teacher practices and other general educational outcomes.

An encouraging finding shows that many teachers are accepting the challenge of using the new curriculum and adapting the outcomes approach to teaching and leaning. Other findings from this study are:

- As a result of the education reforms, attendance of children in primary schools has improved.

- A combination of languages such as *Tok Pisin* and vernacular provides students with a clear learning advantage over children who learn in one single language.
- Girls perform better in language than boys while boys perform better at mathematics than girls, an observation also supported by the Curriculum Standards Monitoring Test.
- The provision of policy level documents by the Department to schools is poor, resulting in schools obtaining incomplete information about the education reforms and implementation requirements.

A second study investigates the quality and effectiveness of the processes used to develop and implement the elementary curriculum and the impact of elementary materials on the way teachers teach and how students learn. Findings suggest that children learn to speak, read and write more efficiently in the language with which they are most familiar and that as a result of the education reform, elementary school children are gaining a better understanding of their culture and their place in it. Rather less positively the study points to the need for greater support from the inspectors and trainers and the need to strengthen the cluster model for professional development. The study found that the acceptance level of teachers and their ability to make an effective use of the materials was related to the number of years teaching experience they had and also the number of in service courses that they had been exposed to. This latter point is confirmed by anecdotal evidence that some teachers in the remote parts of the country do not understand outcomes based education and are reverting to old ways.

### *E3 Quality Teacher Education and Training*

The key to the success of the elementary schools was always going to be the teacher training program. An innovative, mixed mode course was developed with considerable support from AusAID. The residential component of the course was delivered at the local, usually district, level. This was important in order to preserve the sense of elementary schools being a part of the community and it was also hoped that a program such as this would allow large numbers of women to participate. This teacher training was planned to be completed over a three year period using an apprenticeship approach and included both theory and on the job training experience. The model has four components, one of which is the residential sessions with another being the program of Self Instructional Units that trainee teachers were expected to complete whilst in their schools. All of this was to be followed up by a regular series of supervisory visits made by the elementary trainers.

This teacher training program was supported by a program for training teacher trainers that was offered through the PNGEI. It is these trainers that have facilitated, delivered, monitored and then assessed the Certificate of Elementary Teaching program at the provincial and district levels.

AusAID support lasted until 2004 through two phases of an Elementary Teacher Education Support Project. Following the completion of these projects AusAID and



the Department of Education were unable to reach an agreement to extend the project.

The program has rapidly deteriorated since 2004 partly as a result of this. Stresses included the completion rates of trainees, the supervision of the trainees and the management of the program. The Department was never able to budget satisfactorily for the program and although in some cases the provinces took up the slack the training program was increasingly started very late in the year and an enormous back log of teachers built up. A system of user pay was introduced and this helped but the quality of training and supervision suffered enormously. In recent years the situation has been as follows:

- In 2005 the Department of Education funded the Trainer Directed Training workshops but there was no funding for the trainer visits and the cluster workshops. The program started very late in the year and the first year students are still in year two in 2007.
- In 2006, AusAID supported the training program through the ECBP but there was no year one intake.
- In 2007 the Year one course was full user pay and years 2 and 3 were paid for by the Education Capacity Building Program.
- In 2008 only the 3<sup>rd</sup> year was paid for by the Education Capacity Building Program

The total number of trainer positions funded is 200 although only 177 of these are filled at present. There are 50 trainees amongst these 177 trainers.

It is unfortunate to have to report that this innovative model used to train elementary school teachers challenged the mindsets of many bureaucrats. Many believed that the model of training elementary teachers was based on 'workshops' only. It is clear that many did not understand the orientation of elementary education including the teacher education program.

The Department failed in the challenge to ensure that as many people as possible understood why the teacher training program was as it was. As a result, the system has fallen down in a number of ways. There has been a lack of quality control principally because of the inability to fund the trainees to be able to visit the elementary trainees in their schools.

At the provincial level there has been confusion and misunderstanding in a number of areas associated with the establishment of elementary schools, the appointment of trainees, and the payment of trainee allowance and the salaries of registered teachers. This is despite the many workshops that have been run with all types of provincial staff. All in all there is still much that can be done to improve the management and administration of elementary education at the provincial level and to strengthen the connections to teacher training.

There is also uncertainty regarding a group of people known as elementary coordinators. The Provincial Elementary Teacher Training Coordinators are employed by the Papua New Guinea Education Institute but there are also other provincially appointed Elementary Coordinators who are responsible for the

administration, and frequently the planning, of elementary education in the province. This in turn creates confusion and occasionally conflict within the provinces. The PNGEI has had enormous problems in accessing the number of trainees each year and ensuring that these numbers reflect numbers in both the National Education Plan and the provincial education plans. All in all there are too many coordinators involved with elementary education and this has resulted in confusion as to who is actually responsible for what.

There has been little done to provide a program of professional development for elementary school teachers and the site leaders. However, elementary teachers are now able to access relevant training modules provided as a part of the teacher In Service Plan. They should do this through contact with their local feeder primary school.

A lack of professional leadership and management skills has long been identified as being a weakness in the elementary schools. There is also an increasing demand from serving elementary school teachers for a career path that would allow them to use the skills that they have gained as an elementary school teacher to train and become qualified as primary school teachers. There are obvious advantages to this in that the skills that they have would be useful in a role as a lower primary school teacher specialising in the bridging grades that are currently causing problems in the primary schools. A counter argument would be that the country is desperately trying to train sufficient elementary teachers to achieve access without being further hampered by trained elementary school teachers leaving for what they see as greener pastures.

A review of the teacher training program was conducted in 2006 and this review, bearing in mind all of the many problems outlined above, recommended the institutionalising of the program. This was due to be put in place in 2008 with 2007 being used as a planning year to carry out two major tasks. First, there would need to be a rewriting of the course to allow it to be delivered at a teachers college and, second, there would need to be infrastructural work undertaken at the colleges as a preparation for the first trainees. As it happened, the initiation of the residential course has now been deferred until 2009 when two colleges will take on trainees as a trial. In addition to this, 2007 was also a year in which support was further concentrated on those still going through the mixed mode program in order that all trainees are able to complete their certificate.

At the commencement of 2009 two methods of training elementary teachers will be operational. The first of these is the multi model approach as outlined above and the second is a training using a residential college approach.

The second training approach involves students training to become elementary teachers using a residential college approach. This approach involves students training at a residential college for one whole academic year. The course involves similar topics studied under the multi model method as well as incorporating school visits and a six week practicum in the trainee's home area. When the institutionalisation does come about there are still problems that have to be faced. It is unlikely that the trainees will be eligible for support from the Office of Higher

Education and so someone will have to pay for the whole cost of the training. Second, quite how issues such as teaching practice and micro teaching will be addressed in a college situation still needs to be resolved. Third, it is not yet clear who will train the elementary school teachers at the colleges but it isn't likely that they will come either from the group of trainers who have completed the Bachelor of Early Childhood Education from the University of South Australia or the group who have recently enrolled on a similar course being run by the Queensland University of Technology.

#### *E4 Management*

There have been failures at the national, the provincial and at the local levels of Government that have all impacted negatively on the elementary schools. First, nationally there has been a failure to budget effectively for elementary education and to establish a system for the registration of schools. This has led to large numbers of teachers not being paid and schools not being properly recognised.

A number of provinces took many years before they considered the elementary schools as being part of the formal education system. There are some provincial officers who still give the impression of thinking that the elementary schools are part of a 'separate' system. As an example, there are planners who collect statistics for the primary schools, the secondary schools and the vocational centres but leave the elementary schools to the trainer or the coordinator. Plans were made for the introduction of the elementary schools but too many provincial planners have ignored them as being 'too hard'. This planning exercise is being redone as a part of the development of the provincial and the district education plans. There has been a realisation that there have been too many small schools established in some areas and that there is an urgent need for a rationalisation process to be undertaken. New Ireland Province is a good example of this and the process will also extend to the primary schools.

The planning for elementary schools in the provinces has been woeful in too many cases. The Department of Education established quotas for the number of classes each province had to establish in order to achieve national targets. This was based upon the existing prep enrolment in each province and the 6 year old population but in too many cases these quotas have been ignored.

The Local-level Governments have failed in their responsibilities regarding the infrastructure and maintenance of the elementary schools. Whilst it is true that there has been a lack of funding reaching the Local-level Governments it is also true that the Local-level Governments themselves have not been as supportive as they perhaps should have been and have placed much of the money that they have had at their disposal into the primary schools.

The level of community support for the elementary schools has been mixed. There needs to be a greater degree of awareness on the subject to stop many people thinking of them as being 'village schools' that somehow do not deserve the same level of support as the primary schools. The local curriculum committees have not been particularly effective, as is noted later in the primary section, and the format for their establishment needs to be reconsidered.

Progress has been made in other areas. In order that basic supplies can be provided for all schools later in the plan period the cost of providing these supplies has to be calculated. This is being at least part way achieved through the unit costs study that is due to be completed in mid 2007.

The Position Allocation Committee has been formed and met regularly during 2006 and reported back to both the quarterly regional meetings and also the Senior Education Officers Conference but unfortunately has not met for more than a year now. It is important that this committee be resurrected as soon as possible in 2008.

Elementary school teachers are paid based upon the principle that as they only work for 5 hours a day they should only be paid five sevenths of a primary school teachers' salary.

### *Elementary challenges*

#### **How can we achieve access targets in a measured way?**

The responsibility for this rests largely with the provinces, all of whom have received quotas for the establishment of elementary schools. These quotas were accepted by provinces at the Senior Education Officers Conference of 2005 and have been taken into account during the preparation of the Provincial Education Plans.

- It is the responsibility of the Department of Education to monitor the opening of new school to ensure compliance and to ensure that systems to register schools and to pay the teachers are in place.
- It is the responsibility of the provinces to ensure that the district implementation schedules are completed, that these schools are registered and that the teachers are paid. The Department of Education is currently supporting the districts in the development of their district education plans. These will be consistent with the provincial education plans and a key component of these will be implementation schedules for the establishment of the elementary schools.
- It is the responsibility of the local-level governments to ensure that establishment grants are paid for new schools and that schools are provided with sufficient funds to provide basic maintenance to be carried out.
- It is the responsibility of parents and the community to contribute in kind to their school.

If these basics are not done properly then there can be no surprise that the system is ridiculed and that people hanker after the trusted, although deeply flawed, system of old.

There is pressure to have children at school for the whole day as opposed to the present four hours. This would necessitate the raising of salaries that at present are based upon the fact that the teachers are not working full hours. This will

clearly have a significant impact on the total salary bill. The Department of Education, with the Teaching Services Commission, need to reach a decision regarding the remuneration for elementary school teachers.

### **How are we going to resolve the language in schools issue?**

There is an increasing reaction against the use of the vernaculars and of *tok pisin* in the elementary schools. There are a number of critics, who have used the print media to express their views, who would like to see a return to the use of English as the language of instruction in the early years of schooling. Whilst it would be easy to dismiss this as a reaction from the urban minority it is a view that is strongly held by many.

The Department needs to look dispassionately at the research and if it can be determined that the use of vernaculars does indeed bring about improved long term learning outcomes then these findings should be publicised, the system be vigorously defended and awareness be conducted so that people do understand the reasons for such policies. If, however, findings do not find the desired outcomes then the language in schools policy should be reviewed to reflect such findings and look to other options such as introducing English as a separate subject at an earlier stage.

### **How are we going to make a success of institutionalising teacher training whilst both retaining the very important community involvement in elementary education and ensuring that there are sufficient teachers to be able to satisfy the needs of the Universal Basic Education plan?**

Progress has been made at the national level in preparation for these both in terms of infrastructure and curriculum development. The provinces still need to reconsider some of the criteria that they have in place for the selection of teachers. This is mentioned in many of the provincial education plans but very few have actually done anything to implement it.

There is going to need to be a very careful balancing act undertaken in order to ensure that the teachers required for the elementary schools are trained. Approximately 1000 extra teachers are required each year in order to achieve the targets.

## Primary

### *P1 Access*

The principal stated government objective for education is to provide a basic nine years of education for all Papua New Guinean children. The latest enrolment numbers and enrolment rates for 2007 are as shown below and indicate that the country still has a long way to go in achieving these objectives. This issue of achieving Universal Basic Education is now being addressed through a Taskforce established by the Minister for Education. This Taskforce, which includes members from all donor partners, will be supported by a secretariat which will be formed from the Policy, Planning and Research Division of the Department. The World Bank and UNICEF have both offered to support Government in looking at ways to fast track progress to achieving Universal Basic Education in the country.

#### *Primary school enrolment by grade and gender, 2007*

	Male	Female	Total	%age female
Grade 1	29429	24128	53557	45.1%
Grade 2	27609	21815	49424	44.1%
Grade 3	68334	55476	123809	44.8%
Grade 4	63073	50034	113107	44.2%
Grade 5	56237	45044	101281	44.5%
Grade 6	51874	40632	92506	43.9%
Grade 7	42495	32910	75405	43.6%
Grade 8	37611	28174	65785	42.8%
	376663	298211	674874	44.2%

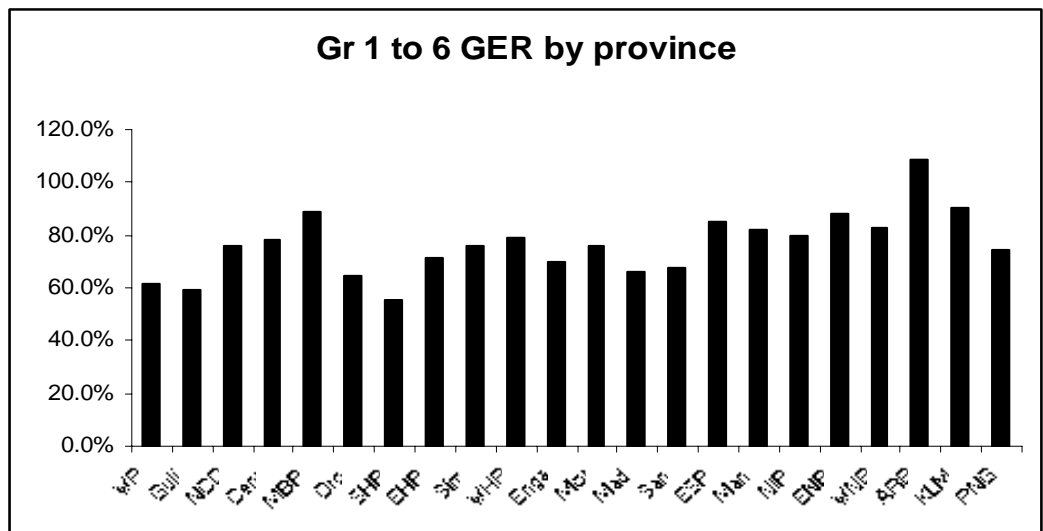
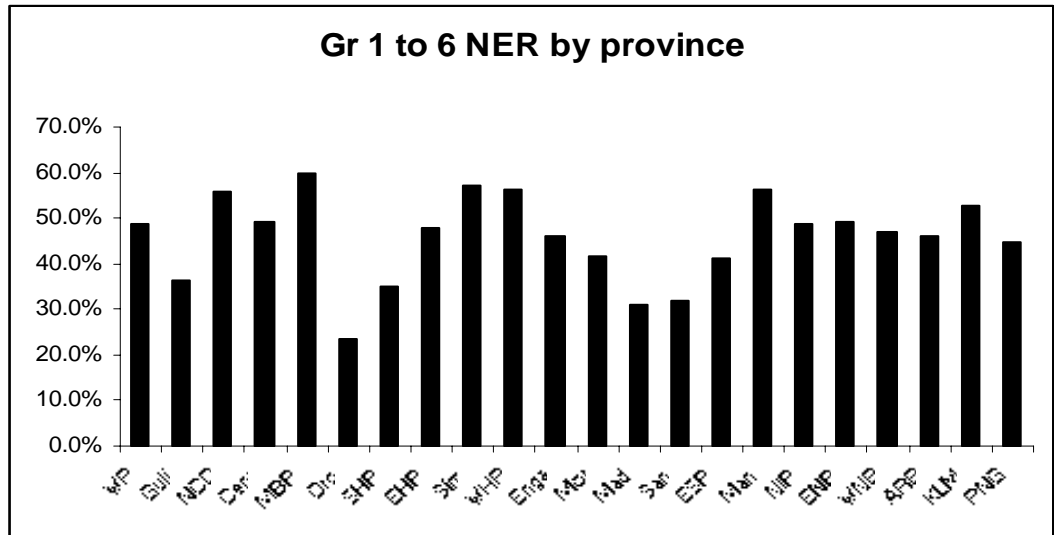
The 2007 national education census has allowed us for the first time to analyse age data. The following tables and accompanying charts give us both gross and net enrolment rates for Grades 1 to 6 and also Grades 3 to 8.

#### *Primary gross enrolment rates, 2007*

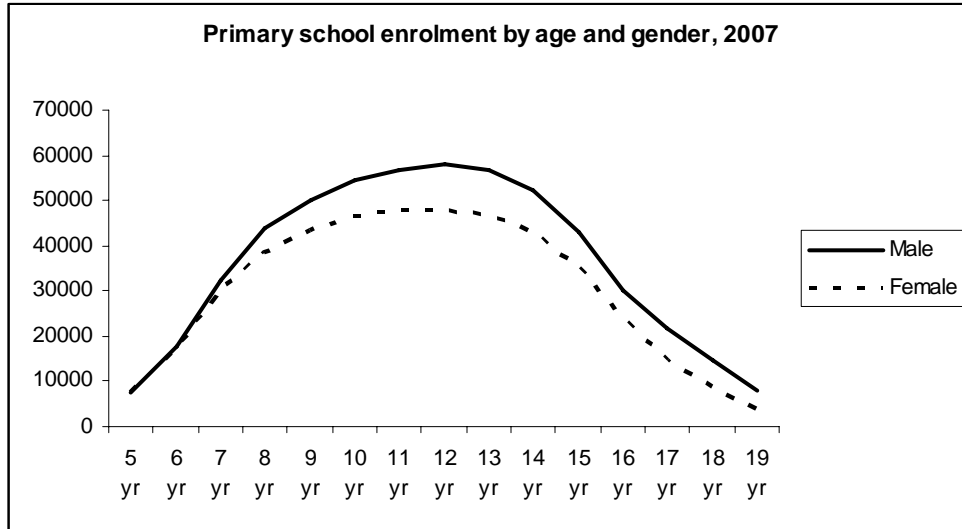
	Male	Female	Total
Gr 1 to 6	78%	70%	74%
Gr 3 to 8	65%	57%	61%

#### *Primary net enrolment rates, 2007*

	Male	Female	Total
Gr 1 to 6	46%	43%	45%
Gr 3 to 8	39%	37%	37%



The following chart illustrates the wide range of ages of children attending primary school. There is little significant difference in the age structure for boys and for girls.



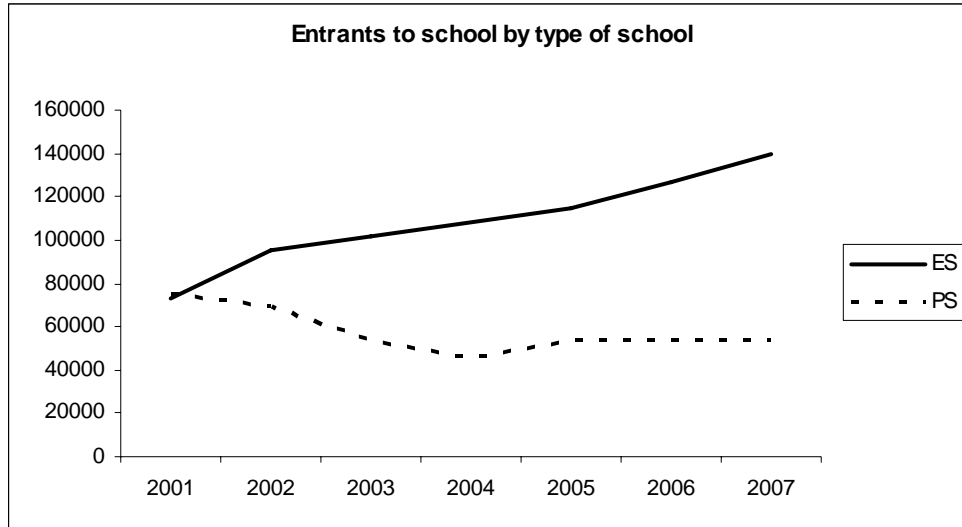
There are still a large number of children entering school in the primary sector. The National Education Plan says that all children should be entering elementary prep by 2012, meaning that the 'old' system will not have been phased out until then, and so this in itself is not of significant concern. What is of concern is that the number of children in grade 1 is not dropping each year as it should be although this could be related to the problems affecting the implementation of the elementary system and in particular that of teacher training. This needs to be constantly monitored in future years.

The table and the chart below show the number of children commencing their schooling at the elementary schools (in prep) and the primary schools (in grade 1).

*Enrolment in first year of school by type of school, 2001 to 2007*

	Elem School	Primary School
2001	73364	75088
2002	95121	69317
2003	101719	53843
2004	107993	45572
2005	114442	53396
2006	126833	53476
2007	139224	53557

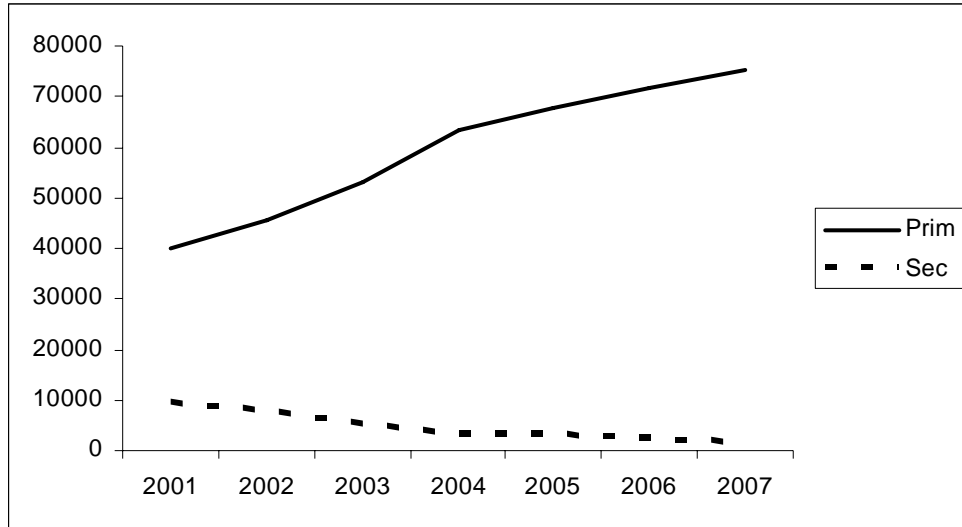




At the upper primary level the numbers entering Grade 7 is rising and the increase in the number of schools offering the upper primary grades has been relatively ordered. The table and chart below show for recent years the growth in grade 7 enrolment in the primary schools and also the drop in the secondary school system. The final two columns in the table show the increase in Grade 7 primary school enrolment and the number of new classes that have been created assuming a class size of 35. The National Education Plan required that there be 150 new Grade 7 primary school classes established each year in order that the target of Grade 6 children having an opportunity to continue to Grade 7 by 2012 could be met.

*Grade 7 enrolment details by year, 2001 to 2007*

	G7 – Primary	G7 – Secondary	Total G7	Rise in G7 - Primary	New G7 classes
2001	40001	9521	49522		
2002	45501	8030	53531	5500	157
2003	52910	5124	58034	7409	212
2004	63471	3194	66665	10561	302
2005	67715	3260	70975	4244	121
2006	71560	2367	73927	2952	84
2007	75405	1473	76878	2952	84



The transition rate between grades 6 and 7 has risen as presented in the next table although this rise has evened out somewhat in recent years.

*Grade 6 to 7 transition rates by year and gender*

	Male	Female	Total
2000 to 2001	75.2%	73.5%	74.5%
2001 to 2002	79.1%	76.1%	77.8%
2002 to 2003	80.9%	80.5%	80.7%
2003 to 2004	92.3%	91.1%	91.7%
2004 to 2005	90.5%	84.7%	87.9%
2005 to 2006	85.7%	83.6%	85.7%
2006 to 2007	86.4%	84.5%	86.0%

The issue of children dropping out of school was highlighted in the National Education Plan as being the major impediment to achieving Education for All targets. The table below shows that little has changed. It shows completion rates for both the cohort that completed Grade 6 and Grade 8 in 2007. The Grade 1 to 6 cohort started school in 2002 and includes Grade 1 children in both the elementary and the primary schools. In the case of Grades 1 to 6 these figures carry huge variations between provinces, and also between districts within provinces. This is probably due to problems with the collection of data in the elementary schools in 2002. As such, the Grade 3 to 8 figure which only deals with primary schools is probably the more reliable of the two. A more reliable way will be considered for calculating a completion rate for future use.

*Completion rates by grade and gender for cohort completing in 2007*

	Male	Female	Total
Grade 1 to 6	64.3%	58.9%	61.8%
Grade 3 to 8	56.3%	55.6%	56.0%

Large amounts of work have been carried out, including *Mi Lusim Skul* by the National Research Institute, to try and ascertain reasons why children are dropping out. This has been picked up by the Education Capacity Building Program who is providing small grants to individual schools to trial strategies to try

and improve retention rates in the primary sector. These grants in 2007 went to the Manus, Morobe, Eastern Highlands and Milne May Provinces. More than just the money that has been spent, these really are very small grants, the great value has been the dialogue that has been held between the school communities and education officials to try and determine exactly why children do leave school. Many of the solutions do not in fact need any money at all.

The table below shows primary school staffing for 2007. There are a number of points to be made. First, is the very high pupil teacher ratio in the two lowest grades. The sooner that they can be phased out of the primary school system the better. The overall pupil teacher ratio is slightly lower than it has been in previous years. Slightly less than half of the teachers in the primary schools are female with the greatest numbers being in the lower primary grades. It is interesting that by far the greatest percentage of women are asked to teach in Grade 3 which in many ways provides the greatest challenges because of the size of the classes and the difficulties as a result of having to bridge between the elementary and the primary schools.

*Primary school staffing by grade and gender, 2007*

	Male	Female	Total	TP ratio	%age female
Grade 1	590	367	957	56.0	38.3%
Grade 2	624	363	987	50.1	36.8%
Grade 3	1448	1851	3299	37.5	56.1%
Grade 4	1593	1613	3205	35.3	50.3%
Grade 5	1673	1396	3069	33.0	45.5%
Grade 6	1774	1319	3093	29.9	42.6%
Grade 7/8	3374	2354	5729	24.6	41.1%
	11076	9264	20340	33.2	45.5%

If targets relating to getting all 6 year old children into prep are to be achieved then there will be a considerable knock on effect in the primary sector. As noted earlier the only way to achieve this will be to determine a date beyond which only the 'correct' age children will be able to enrol. This means that there will have to be some consideration given to providing opportunities for the older children who have still not been enrolled in school. There will almost certainly have to be a separate program developed for this group, which may number anything between 300 and 500,000 young people.

*P2 Quality Curriculum and Monitoring*

An outcomes based curriculum has been introduced and all syllabus and teacher guides are in schools. These have been distributed as a part of the Curriculum Reform Implementation program. Delivery has been on a door to door basis – a process that has reportedly been highly successful. Text books for all schools will be distributed in a similar fashion as a major component of the Education Training and Human Resource Development Training Program – an initiative of the European Union.

A large amount of materials have been distributed to all schools and these include all syllabi and teacher guides, all relevant policy documents, school journals, teacher resource and reference kits and HIV AIDS materials.

A set of sample units of work for Health and Personal Development will be distributed later this year along with further copies of the 2007 resources and an updated Resource Book for every teacher. Other resources nearing completion include readers for G3 and 4, Health Promoting Schools Manual and course and a life skills in-service manual. Finally, a text book has been approved for primary and lower secondary.

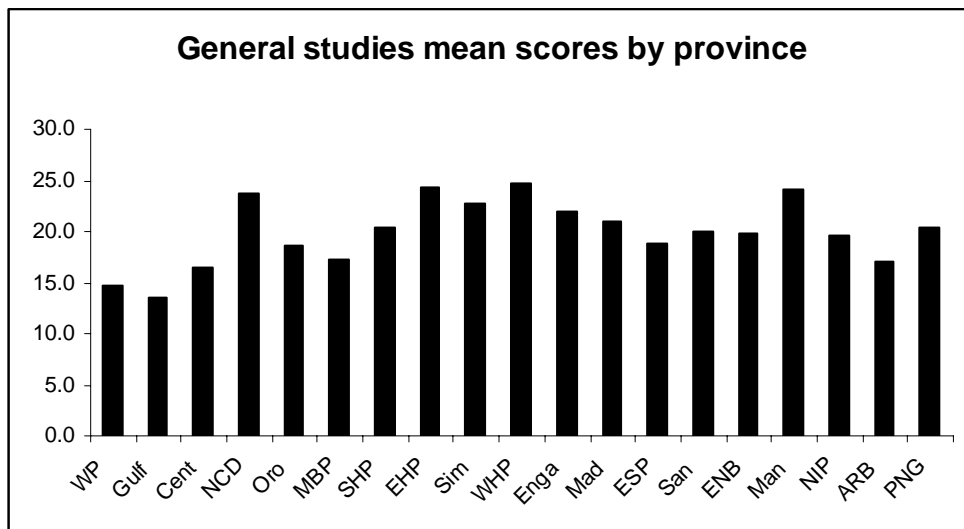
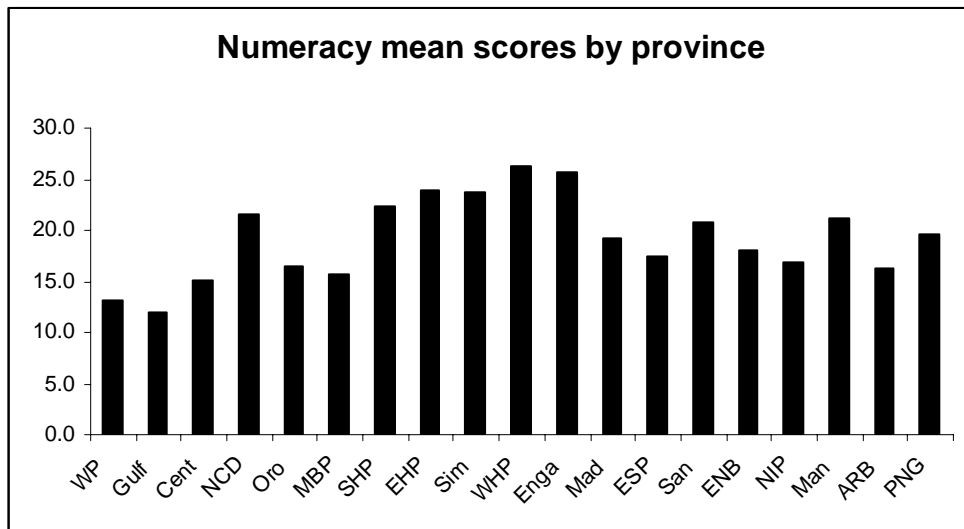
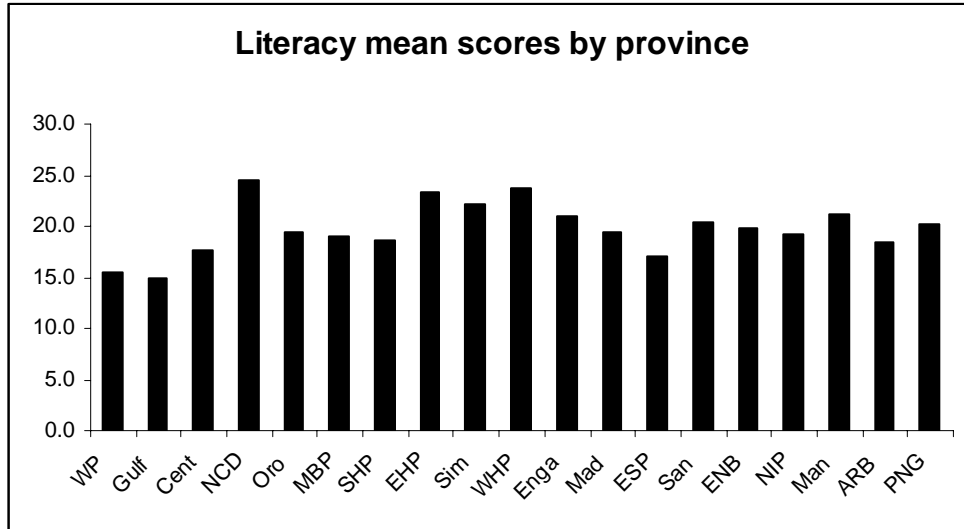
Efforts have been made to foster the development of locally based curriculum. The Curriculum Reform Implementation Project introduced a Curriculum Reform Support Program designed to assist individual elementary and primary schools, or clusters of these schools, to develop local resources in localised contexts to more effectively implement the reform curriculum. An impact study concluded that although seen as being valuable very few schools were aware of the program and benefited from it and that a cluster, or district, based approach would be more effective than one focused on school based activities.

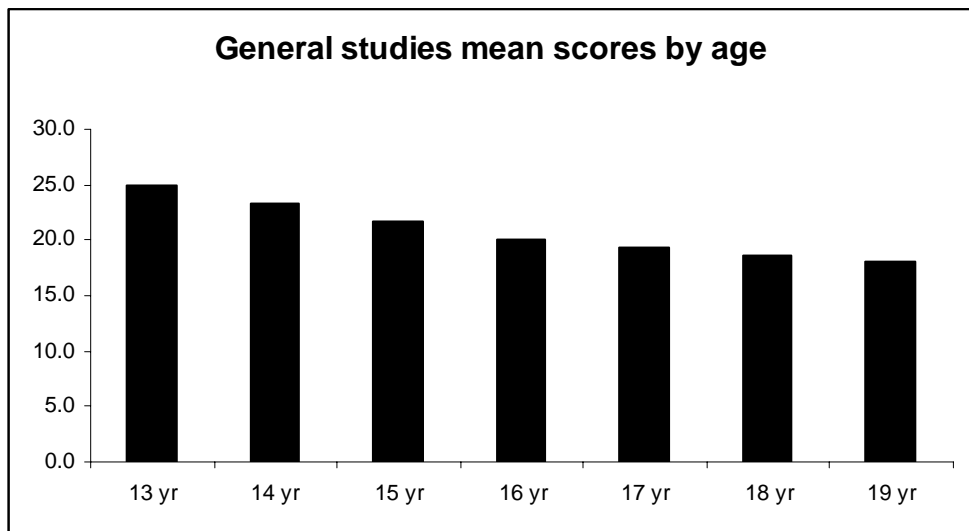
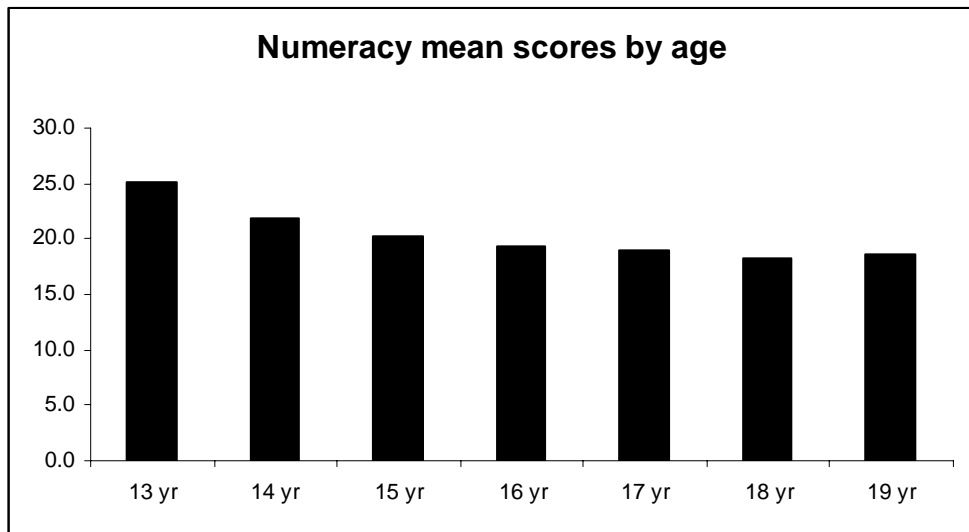
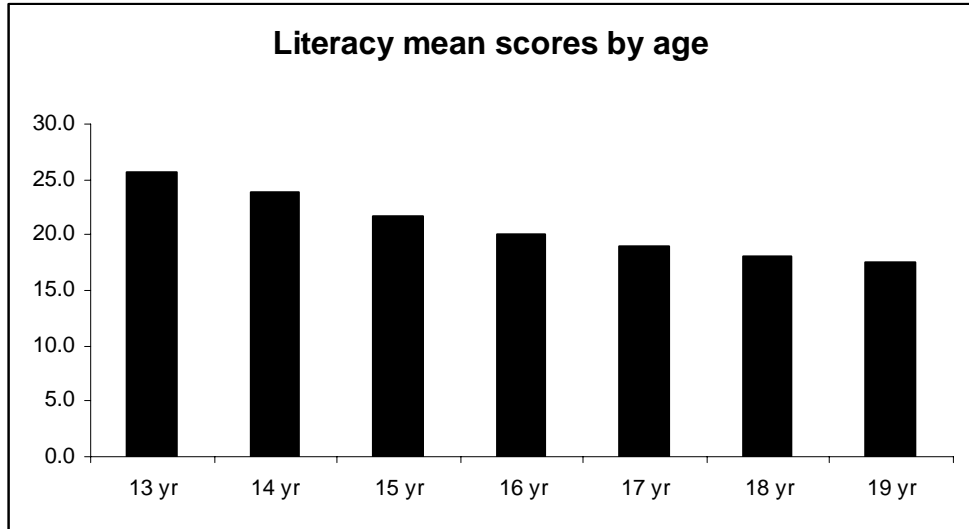
An equally important challenge for the system than the development of the curriculum is whether or not the teachers are able to understand and teach it – see P3 below. There are suggestions that in some parts of the country, and not necessarily only the most remote parts, it is not being implemented at all.

The Inspectors are continuing to experience problems in accessing sufficient funds to visit schools as frequently as anticipated. At present, the funds come from a variety of sources – the recurrent budget, the Basic Education Development Project, the Education Quality Program, counterpart funds from the Education Capacity Building Program and the Education Capacity Building Program itself. It is clearly unrealistic to expect every school to be visited each year. It is expected that the establishment of provincial sub imprest accounts will improve the flow of funds from Port Moresby to the provinces.

A considerable amount of time and effort has been put into developing a Curriculum Standards Monitoring Test for Grades 5 and 7. It has been supported by both the Curriculum Reform Implementation Project and, subsequently, the Education Capacity Building Program. The pilot program was first carried out in 2005 results for which are now available. This should have been further implemented in 2007 with results becoming available sometime in early 2008. Unfortunately insufficient funds were made available for the tests to be printed. It is now intended that the CSMT Cycle 1 be carried out in 2008.

The examination results by province and then age for Grade 8 for 2006 are shown on the following pages. These are the mean scores and do **not** reflect absolute standards. It should be noted, first, that the scores for West New Britain and Morobe were not made available by the provinces in time for inclusion. Second, only the scores for students between the ages of 13 and 18 are given. There are students outside of this age range but numbers are so small as to be insignificant.





P3 *Quality Teacher Education and Training*

One of the major impediments as regards achieving universal primary education is that of deployment of teachers to remote areas. One of the key strategies in the National Education Plan was to direct graduates from the teachers colleges to schools in areas with demonstrated teacher shortages. This was to be done by introducing bonding for new graduates and also to allow grade 10 graduates from the affected areas entry into the teachers colleges. There has been no progress made in the former although the European Union program will sponsor Grade 10 students who satisfy agreed criteria through the colleges for the next three years.

As noted earlier a Task Force has been established to look at developing a Universal Basic Education plan. This plan will look at ways in which the country can fast track it's way to achieving Millennium Development Goals. There will undoubtedly be a need for a large number of extra teachers, even if only for a short period of time, in order to cater for the 'backlog' of children who have not yet gone through the system. It is unclear as to how these teachers can be prepared in a relatively short space of time.

There is a terrific demand for teacher training and in recent years the colleges have been swamped with applications from students who are willing to sponsor themselves. It is questionable however as to how many of these students will be willing to take up teaching positions in the remote parts of the country where they are needed because many of them are from the urban areas and will be seeking positions in the towns. They are likely to be day students at the colleges.

There have been some attempts to establish privately run teachers colleges but these have yet to receive official endorsement from the National Education Board and so the graduates are not allowed to be registered to teach in national education system schools. There has been dialogue between these institutions and the Department but they have yet to meet the requirements of National Education Board, the Teaching Services Commission or the Department that will allow their teachers to be recognised and then registered.

The professional development for serving teachers is causing considerable concern because it is this that is going to determine the successful implementation or otherwise of the reform curriculum. The Teacher In Service Plan, developed in 2006 following wide spread consultation with all stakeholders, is critical to resolving these concerns. This Plan, which was trialled in 2007 and is covering the whole country from 2008, is wide ranging, innovative and will provide for all those involved with the delivery of the reform curriculum. In 2007 efforts were concentrated on 100 clusters of schools as trials covering some 4,000 teachers and Headteachers in the elementary and primary schools. There was at least one cluster in each district. This program has been expanded this year to cover 4000 schools using the cluster based approach to in service professional development.

The guiding principles behind the Teacher In Service Plan are that the program will be school focussed, will utilise local expertise as much as is possible, will build relationships between different sectors of the education system and will support provinces and districts to establish their specific in service frameworks. It will

largely be the responsibility of the teachers themselves to take the initiative their own professional development.

Thirty training modules have been distributed to all teachers in the primary and the community schools. Elementary teachers will also have access to about fifteen of these modules that are of relevance to their work. Provincial Teacher In Service Plan Management Committees (PTMC) have been formed in all provinces to manage the program. The individual clusters apply to their particular PTMC for funding for in service activities. In the next ten years the Plan will prepare teachers to competently deliver an outcome based education.

In the post primary sector, all secondary schools, UPNG, PAU, and the primary teachers colleges are being covered. The funding for the program in 2008 is still coming almost entirely from donor funds. In future there will have to be a demonstrated commitment by way of significant contributions from the Department of Education, from the provinces if the Plan is to succeed. It is also expected that individual schools will make provision for in service training as a part of their School Learning Improvement Plans.

2007 was the first year that all graduating teachers would have completed the new HIV/AIDS & Reproductive Health pre-service course taught by a team of twenty HIV/AIDS trainers at the teachers colleges. Every student graduated with a Student Teacher Course Book. All DEP (I) teachers also complete the course. HIV/AIDS is a compulsory part of the national Teacher In-service Plan and an HIV/AIDS In-service Framework and Modules has been completed and the first tentative steps towards standardising in-service training have begun through a national training partners summit held in October 2007. The Population Education program has completed reproductive sexual health training in all Districts in PNG

#### *P4 Management*

The Department is still experiencing problems in ascertaining the level of parental contributions that should be recommended annually. It was for this reason that a study of unit costs was commissioned in 2006. This report was completed by the middle of 2007 and provided some guidance in this area although there are still questions to be asked regarding some of the figures included for the curriculum requirements for secondary education.

Work has progressed towards developing a more equitable way in which to deploy teachers. The Position Allocation Committee was formed in 2006 and has reported both to the regional forums and the Senior Education Officers Conference. Unfortunately, for a variety of reasons, this committee has not been functioning since then. It is important that it is resurrected as soon as possible. This committee will then continue to develop a formula that will deploy teachers to schools based primarily, although not exclusively, upon the number of children enrolled in the school.

The Local-level Governments have not been supporting the schools either through regular money for infrastructure or through support for curriculum implementation. The Basic Education Development Program has been filling the gap to an extent by providing maintenance grants to primary schools in all provinces and new



primary school infrastructure in the 'new' provinces. This project, along with its predecessor the BEICMP, has now provided support to all provinces bar the Southern Highlands which will come on line during 2008.

All schools should be completing their School Learning Improvement Plans that are seen as being critical to improving learning outcomes in the schools. These plans, with the support of the Standards Officers, are being developed by Headteachers, Boards of Management and the school community at large. A highly consultative approach is being utilised that includes parents and students. Training workshops are being run to equip all standards officers with the skills required to support the headteachers and principals of schools. The process was trialled in 2006 with 80 schools being covered in all sectors. It was intended that one third of schools complete their plans each year in the years 2007 to 2009 but, understandably this rather ambitious target has not been met. There have been a number of success stories that have been documented and there is a feeling amongst the Standards Officers and school administrators that these documents will be extremely valuable. As schools begin to appreciate the value of these plans it is to be hoped that all will be finished by the end of 2010.

### *Primary challenges*

#### **How are we going to ensure that textbooks are going to be redistributed every five years as per the text book policy?**

It is critical that a strategy is put in place to make sure the country does not repeat the mistakes made following the World Bank book distribution in 2000 and 2001. It is sad to report that many of those books are no longer in the schools and that the schools are back in a situation where there are very few books available.

#### **How can we ensure that the Teacher In Service Plan is sustainable?**

All stakeholders must play their part in the implementation of what the Department of Education see as being the number 1 priority. This includes:

- the provinces who should make sure that the funds that they budget for in service is directed towards activities that are a part of the In Service Plan as opposed to more 'local' initiatives,
- the districts which should be attempting to get an annual appropriation in order that professional development activities can take place, and
- the schools who should make sure that there is provision for professional development in their School Learning Improvement Plans.

To date, the donors have provided the great bulk of the funding but this will have to change. Many provinces and districts contribute to teacher development but they need to ensure that the funds that they spend are directed towards supplementing the efforts of the Department of Education and of the donor community.

## When are we going to ensure that there is a sustainable and consistent school fee subsidy policy that is fair for all?

One of the major initiatives in the National Education Plan was to provide basic school supplies for all elementary school children by 2012. This will have the effect of redistributing the resources to the more remote areas because of the added transport and distribution costs to these areas. This cannot, however, be achieved without a reasonable lead time. For example in order to deliver basic school materials by the start of the school year in 2010 the process of tendering would have start in late 2008. There is little evidence at present to suggest that a very high level of school fee subsidy actually contributes towards achieving education outcomes. This is evidenced by the actions of the Governors in the Enga and the Southern Highlands provinces .which have both stepped back from their 'free education' policies of recent years.

The Universal Basic Education plan will incorporate much more generous subsidies than there have been in the past. It is critical that the true costs are known so that the levels of the operational grants that will have to be paid can be set at a realistic level.

## Secondary

### S1 Access

The enrolments in Grades 7 and 8 are dropping as planned but there are still a number of schools that have still got the lower grades, even if there are very low enrolments in these lower grades. The figures below are for the high schools and the secondary schools who submitted data in 2007. Most of the schools with a different class structure are those that are in transition to either a Grade 9 and 10, or to a Grade 9 to 12 structure.

- 12% of schools have Grade 7 to 10 classes
- 52% of schools just have Grades 9 and 10
- 32% of schools are full secondary schools with Grades 9 to 12.
- 4% of schools have another structure.

The table below shows total enrolments by grade and the percentage female enrolments in lower and upper secondary. Female participation is improving slightly in the upper secondary sector but not in the lower secondary.

*Secondary enrolments and gender detail by province, 2007*

	Male	Female	Total	%age female
Grade 7	898	575	1473	39%
Grade 8	1265	832	2097	40%
Grade 9	20784	14892	35676	42%
Grade 10	16780	11543	28323	41%
Grade 11	6618	3907	10525	37%
Grade 12	5668	3433	9101	38%
	48635	38560	87195	44%

As has been highlighted on many occasions in the past there has been far too rapid a growth of secondary schools offering Grades 11 and 12. There are now more than 50 such schools with some provinces having as many as four. The 1995 to 2004 plan envisaged that there would be one such school in each province by 2004. The country has clearly gone way beyond that. This expansion has also had other flow on effects. The major one of these is the large number of Grade 12 graduates with no place to go to in tertiary education.

The selection for Grade 11 is still, nominally, conducted nationally with all selections being endorsed by the Secretary for Education, as Chairman of the National Education Board. However, each year there is a 'second round' of selections that is carried out provincially. This is largely because of pressure being placed on education administrators and on the schools themselves.

Provinces are simply not listening and are opening new schools without necessarily having the requisite approvals. Recommendations from the Implementation and Monitoring Group, whose role it is to check on the readiness of schools to establish the grade 11 classes, are routinely ignored. This is a recipe for disaster and will severely compromise standards if allowed to continue. New Ireland provides a good example of how a province should be administered with regard to the expansion of its upper secondary schools. They have delayed establishing Utu as a secondary school following advice from the Department of Education and is determined that they will put in place all of the recommendations included in a report from the Department before enrolling the first grade 11 students.

Having said all of this, the enrolment rates discussed later in this section show that only very few Papua New Guineans still have the opportunity to complete a full secondary education despite the rapid growth of recent years.

The costs of expansion at the secondary level for both grades 9 and 11 are very high especially now that virtually all grade 7 and 8 classes have been phased out of the secondary schools. This has taken away one of the initial strategies for increasing access in a cost effective manner. It is difficult to put an exact figure on how much it would cost for infrastructure for one stream of lower secondary students. This is because of the very different conditions that prevail in the country and the different mix of boarding and day students. However, if provinces do wish to expand a school they should look at a cost in the vicinity of K400,000 for each new class of grade 9 students that they intend to introduce. Alternative strategies should be considered for increasing access to satisfy demand for secondary education. One of these that is being seriously considered for, in the first instance, the National Capital District, is to introduce shift teaching or a variant thereof. The rationale behind this is to make the most effective use of the facilities that are available for secondary education.

The numbers moving from Grade 8 to Grade 9 has been increasing at a rapid rate but, as planned, the transition rate is dropping. This is because the enrolments in Grade 8 are also rising at an even faster rate. The table below shows the transition rates by gender for recent years. The National Education Plan has a target of 50%

transition. As can be seen the national figure is still above that target but is dropping. What is rather more alarming is that the difference between male and female transition rates seems to be becoming wider rather than narrower as called for in the National Education Plan.

*Grade 8 to 9 transition rates by year and gender*

	Male	Female	Total
2000 to 2001	69.3%	66.5%	68.1%
2001 to 2002	76.3%	70.7%	73.9%
2002 to 2003	77.4%	69.3%	74.0%
2003 to 2004	65.2%	57.5%	61.9%
2004 to 2005	61.3%	53.7%	58.0%
2005 to 2006	57.2%	53.1%	55.4%
2006 to 2007	56.9%	53.1%	55.3%

The table below is particularly illuminating. Even though provinces have been opening schools at a far too rapid a rate the enrolment rates, particularly those in the upper secondary grades are still very low indeed. Overall only about 1 in 14 Papua New Guineans have an opportunity of obtaining a full secondary education

*Lower and upper secondary enrolment rates, 2007*

	Male	Female	Total
Lower Secondary	25.7%	19.9%	23.0%
Upper Secondary	8.9%	6.1%	7.6%

The increase in grade 9 and grade 11 enrolments over recent years is shown in the next table. The numbers in grade 9 rose by some 20% between 2000 and 2005, whilst the grade 11 enrolment showed a rise of almost 75%. The final column shows the increase in Grade 11 places. If a class size of 35 is assumed then there should have been an average of around 20 new classes established each year. This is not quite the case of course. What has happened is that class sizes have risen quite alarmingly. The National Education Plan demanded that only eight new classes be started each year in order to achieve transition targets.

*Grade 9 and grade 11 enrolment, 2000 to 2007*

	Grade 9	Grade 11
2001	26628	5939
2002	30589	6692
2003	32313	7948
2004	32618	7979
2005	32618	9166
2006	33918	9895
2007	35676	10525

There is still an enormous problem regarding maintenance within the secondary school system and the provincial governments are not contributing as they should. There have been large sums of money set aside for the Rehabilitation of School Infrastructure program (RESI). K60m of this was allocated to the secondary sector and this would have gone a long way towards solving the problem. It is unfortunate that the Department has been incapable of accessing these funds.

## *S2 Quality Curriculum and Monitoring*

The reform outcomes based curriculum has been developed for the lower secondary grades. Syllabus materials and teacher guides have been distributed for implementation this year. Documents distributed have included all syllabi and teacher guides, and relevant policy documents along with an implementation handbook. These materials have also been made available to all schools on CD.

This new curriculum will be a dual curriculum to allow for a greater variety of options to be taken during Grades 9 and 10. This is being achieved partly by reducing the core which will allow the schools to have greater flexibility. It will be interesting to observe in the coming years as to how many schools offer both pathways and how many will offer just the one. It is to be hoped that these extra options will be utilised within the vocational institutions.

The provision of text books and other materials for all schools is going to be of increasing concern in future years. Provinces and individual schools need to start developing innovative strategies for alleviating this. In the past there have been both Grade 9 and Grade 11 classes formed without provision having been made for textbooks and materials for the extra students.

A reform upper secondary curriculum is being developed in 2008. This followed an upper secondary curriculum review that was carried out in 2007. It is anticipated that the upper secondary curriculum will also allow schools a greater flexibility than is currently the case.

The training of school counsellors has been nation wide and many schools have now got such a teacher on their staff. It is expected that around 600 will have been fully trained by the end of 2008 with another 1000 or so having completed parts of the course. Planning has begun on a BEd Personal Development for secondary teachers.

## *S3 Quality Teacher Education and Training*

The University of Goroka is still the only provider of pre service secondary school teacher training although increasingly the Divine Word University is offering courses that are of relevance for secondary teachers.

The number of 'unqualified' teachers in the secondary school system has been reduced as a result of the Post Graduate Diploma of Education offered in mixed mode by the University of Goroka and the Divine Word University. This program is being supported by AusAID and has catered for teachers who have a first degree but no teacher training qualification. Teachers in the vocational sector have also benefited from this program that has been supported by the Department of Education.

Secondary schools are being supported financially as a component of the Teacher In Service Plan. There will be a revival of the 'Professional Learning Teams' that were trained as a part of the CRIP. These teams are responsible for facilitating professional development activities at the school level. Professional development in the secondary schools will be school based and needs based.

The Department of Education and Population Education (UNFPA) have completed a Peer Education Manual for use in secondary schools.

#### *S4 Management*

School fees continue to be an onerous burden for parents in many parts of the country and there are reports of low enrolments in some schools because of the inability of parents to pay school fees. Some schools are beginning to implement self reliance programs – East Sepik province being an example of this – to help parents but there remains much to be done. This problem of fees explains to an extent the fact that subsidies are still skewed disproportionately towards post primary education despite the fact that basic education is the stated priority of Government. The issue of scholarships for talented students still needs to be looked at and this will probably be as a part of a wider ranging review of the education subsidies policy.

The teacher pupil ratios are still too low at about 1 to 21 nationwide. There are as usual wide variations between provinces. If teachers were allocated at a rate of 1 to 26 then the existing teachers could have taught an extra 15,000 students.

The secondary schools are producing their School Learning Improvement Plans using a similar process to that explained in the primary section. To date approximately xxx have been completed.

#### *Secondary challenges*

##### **How are we going to limit increases in access to Grades 11 and 12.**

The responsibility for this rests largely with the provincial governments but the **Department of Education** needs to enforce the Implementation and Monitoring Group criteria for the expansion of access to the upper grades. The National Education Plan calls for an expansion of eight new Grade 11 classes each year. The location of these classes should be dependent upon the transition rates within the provinces and also the performance in the School Certificate Examinations.

The **provinces** should ensure that their provincial governments are aware of the costs of providing extra Grade 11 and 12 classes and also the dangers of standards being compromised by the opening up of classes in schools that are not prepared.

##### **How are we going to satisfy demands for continuing growth in secondary education in a cost effective manner?**

The present model of providing secondary education in schools that are largely boarding is going to prove prohibitively expensive. This will especially be the case when Universal Basic Education has been achieved and there will, inevitably, be pressure to adopt Universal Secondary Education as the next target. One or two provinces have experimented with adding the lower secondary grades to existing primary schools but to date these efforts have failed. This idea should however not be discounted and this is one possible strategy for increasing access in a relatively cost effective manner but it does need to be carefully thought through, especially the implications of administering a Grade 3 to Grade 10 institution.

## How are we going to provide our secondary schools with adequate text books and teaching resources?

The cost of textbooks for all secondary grades, but for the higher ones in particular, are going to become increasingly beyond the ability of the schools to afford. An innovative solution is required which will probably have to revolve around a system being developed that will require parents themselves to purchase textbooks for their children.

## Flexible, Open and Distance Education

### *F1 Access*

A review of the College of Distance Education has been completed and accepted by the Department of Education. Strategies are now being considered as to how best to implement the changes as recommended. It is unfortunate that the Department made distance education such a relatively low priority for 2007 so that it was not able to attract support from the Education Capacity Building Program. The Commonwealth of Learning has offered some technical assistance to support the college in determining these strategies.

As regard enrolments there is still a huge demand for Grade 9 and 10 places and from Grade 10 leavers wanting to upgrade their grades. There is still a role for Grade 7 and 8 courses but this, as expected, is decreasing. There are some students enrolled in grades 11 and 12 but they are taking the matriculation courses that were previously offered through the University Centres. The table below shows new enrolments for 2007.

### *New student and subject enrolments by gender, 2007*

	Male	Female	Total
New student enrolment	1688	1430	3118
New subject enrolment	3236	2754	5990

### *F2 Quality Curriculum and Monitoring*

At the lower secondary level there has been some cooperation between the Curriculum Development Division and the College. Contract writers have been taken on to rewrite the reform curriculum into distance education mode. There are no Grade 11 and 12 courses available through the college at present although that will come on line when the upper secondary curriculum has been developed. For the time being the College is offering the matriculation courses previously provided by the University Centres.

The college is experiencing problems recruiting a sufficient number of markers. This is because secondary school teachers are being discouraged from taking up marking for fear of this interfering with their own teaching duties. The possibility of full time markers has been considered but there are many issues that have to be resolved before this can be done.

*F3 Quality Teacher Education and Training*

There has been little formal training for College staff although there has been some instructional design training for staff sponsored by the British High Commission through the PNG Association of Distance Education.

*F4 Management*

There is still no common examination sat by students going through either the formal secondary school system or distance education but a monitoring system is being established for accreditation through the Office of Higher Education.

## **Technical Vocational Education and Training**

*TVET 1 Access*

The rationalisation of vocational institutions in the country is continuing as education officers begin to accept that many of the centres are simply not viable and are not economic. Of particular note is the Sandaun province that has cut the number of centres down from about 17, mostly very small, to just five.

There is an interesting initiative being undertaken initially at Marienberg in the East Sepik Province but will then spread to thirteen sites. This is the Community College initiative that is being implemented with technical support from the Indian Centre for Research and Development for Community Education and from the Order of Jesuits of India. The underlying concept for the Community College is to develop an alternative system of education aimed at empowering the disadvantaged and the under privileged sections of the population. It will provide both skills training and a chance for community members to continue with their formal education through the provision of distance education opportunities.

Many provinces have attempted to introduce vocational secondary schools, although not always designated as such. In most cases these have been based at vocational centres. The only one that can really be deemed to have been successful is Malahang that is based in Morobe Province. It is hoped that the new lower secondary curriculum will provide post primary institutions with the flexibility that they require in order to offer alternate pathways that lead to a recognised school certificate.

Despite these problems there have been some encouraging things happening within the vocational sector. There have been examples of cooperation between vocational centres and technical colleges and there is an increasing number of vocational centres conducting trade testing.

These initiatives are all very well but this is not the way that the National Education Plan foresaw for vocational education. It is still very formal, qualifications based and geared towards employment in the formal sector. There has been very little to date achieved with regard to expansion of the short courses and the introduction of largely community related courses. Although progress is being made there still needs to be greater cooperation between the Department of Education and the Department of Community Development. What can be said is that this message is getting across, and is largely acknowledged as being the 'way to go' by the



provincial authorities, thanks to the efforts of those in the Vocational Support Services section but this has yet to be turned into action.

It is disappointing to report that vocational education is still considered by many to be very much a second class secondary school education. This can be seen by the number of new high schools promised during the build up to the elections.

At the Technical Colleges, overall enrolments by type of course and gender are shown below. These figures equate to an enrolment of approximately 2800 full time equivalent.

*Technical college enrolments by type of course and gender, 2007*

	Male	Female	Total
PETT	15	1	16
TTC	848	210	1058
Ext / apprenticeship	393	63	456
Nat Certificate	94		94
Diploma	1021	499	1520
Part time	293	18	311
Total - FTE	2105	727	2833

A summary of staffing is shown in the following table.

	Male	Female	Total
PNG	177	31	208
Contract	19	9	28
Total	188	48	236

This level of staffing equates to a student lecturer ratio of approximately 12:1 which is slightly less than required for National Education Plan targets. These figures do however hide enormous variations between the colleges with Madang having one lecturer for less than every nine full time students. This is clearly non economic and efforts are being made to address the problem. The business related courses tend to have higher ratios than those of the trade courses. Some 12% of staff in the colleges are expatriate contract officers.

## *TVET 2 Quality Curriculum and Monitoring*

The primary role of TVET is to provide industry and the community with skilled workers to support the economic growth and community development of the nation. In other words, TVET is principally to support students, trainees and workers who have left school to develop skills, knowledge and experience for jobs in the formal or informal economy, but also to provide some pre employment training to students.

At the moment, the programs offered through technical and business colleges and vocational training centres have been largely pre-employment in nature and very little training has been provided to working students or more mature people. This indicates the extent of the supply-driven nature of TVET in PNG. Furthermore, many courses within a program have different titles and structures and they are aimed at the same occupation or skill area and this has resulted in the confusing nature of the current qualifications.

The establishment of the National TVET Qualifications Framework in 2006 will significantly rationalise the TVET courses and qualifications in the country.

The need for a Qualifications Framework had been identified in several reports including the 1997 report to National Executive Council on the future of TVET in PNG. In 2006, with support from the Education Capacity Building Program the National TVET Qualifications Framework was established. A Steering Committee established by the Secretary for Education and chaired by Mr. Michael Manning, CBE, OL, oversaw the development of the framework. The National TVET Qualifications Framework has six qualification levels, with each level described in terms of knowledge, skills, application and responsibility in the work place. These levels are National Certificates 1 to 4, a National Diploma and a National Advance Diploma. A policy submission had been prepared for the National Executive Council in November, 2006.

A program of policy awareness raising and capacity building was conducted in 2007. The ECBP continued to support the TVET curriculum development and the implementation of the qualifications framework. A draft national System of Quality Assurance was developed, although it has yet to be implemented by the relevant government agencies, to ensure that consistent quality standards apply to all TVET providers in PNG. The fragmented TVET system was discussed by the re-established Steering Committee, that continued to be chaired by Mr Manning, and recommended the establishment of a National Qualifications and Training Commission. This would be a single body to coordinate and manage the TVET system in PNG.

As a result of this, the 2006 draft NEC submission was withdrawn and reconstituted to include the recommendation for a Commission. This submission was also presented to the Top management Team and the national Education Board at its first meeting of 2008. It was fully supported at both these meetings. It is expected that this submission will be resubmitted to the NEC later in 2008.

With the introduction of the National TVET Qualifications Framework and the integration of technical and vocational education courses into National TVET modules and courses, the processes of engaging industry and the community in TVET planning will be enhanced.

There has been greater awareness of the range of issues confronting the present TVET system, particularly the fragmented nature of the system that has worked against the effective promotion of quality skills training and recognition in PNG. There have been radical changes in the curriculum and the delivery systems since 2005.

With the introduction of the National TVET Qualifications Framework with the integration of the technical and vocational courses using the National Training Packages which contain the national modules, the process of engaging industry and the community in TVET planning will be enhanced. A demand driven TVET system means active leadership and participation by the key stakeholders in TVET.

The integration of TVET curriculum means colleges and centres will use National Training Packages from the same national curriculum database. It means colleges and centres can no longer be managed separately as they need to be part of the one TVET delivery network. Such an arrangement will enable TVET Division to review and plan its offerings across the totality of the TVET system; its colleges and centres, private institutions and other government departments that run their own training courses.

Consolidated information is needed on staffing, resources, courses, enrolments, project completions and productivity for each program area. In short, a national manpower assessment report is essential for TVET to start achieving a better balance between its supply and industry/community demand.

The National TVET modules will also be integrated into the reform Upper Secondary curriculum and will provide opportunities for TVET certification. The application of the National TVET Qualifications Framework will assist curriculum developers and teachers to be more aware of the occupations in their industry sectors and the alignment of qualifications to occupations and their competency requirements.

The development and introduction of new TVET courses and qualifications aligned with the National TVET Qualifications Framework is relatively straight forward provided that industry competency standards are available, but the introduction and implementation will face many hard challenges that need to be addressed. This will include the adequate provision of tools, equipment and learning resources, the availability of qualified and competent teachers, good managers, available curriculum guides and adequate supporting policies. There will also be a need for a quality assurance mechanism and policies for the accreditation and registration of training providers.

In the vocational sector work has been done with entrepreneurial training for centre managers. This has been supported following agreement between the Department and the International Labour Organisation. Courses have been developed for vocational institutions in the area of agriculture, tourism and hospitality and entrepreneurship. The latter is to equip students with the skills to be able to start their own small businesses.

### *TVET 3 Quality Teacher Education and Training*

Teacher training courses for TVET lecturers and instructors is provided by a range of institutions. These include the University of Goroka, the Don Bosco Technical College, the Papua New Guinea Education Institute and the Divine Word University. A better solution might be to rationalise the provision of training and for there just to be one or two providers – maybe one offering a diploma course and the other a degree course.

Technical college lecturers benefit from the courses offered at the University of Goroka. Principal amongst these is the Post Graduate Diploma in Education that is offered through a mixed mode of Lahara sessions and distance education. The situation is rather different for vocational centre instructors. Female instructors are still able to go to the PNGEI following Grade 12 in order to complete a Diploma in

Vocational Education and Training. Neither this option, nor that of the mixed mode University of Goroka model, is suitable for the large number of male instructors who still require a teacher education qualification. This group of instructors have largely been provincially appointed to fill vacancies in the institutions. They are generally male and with trade skills and experience. A mixed mode version of the DOVET has still to be developed that would allow these officers to be able to gain their qualification yet still continue their teaching. The secret of this will be the supervision of instructors undergoing such training. This has been a weakness of some of the courses offered by institutions around the country.

There has been more success in the provision of professional development opportunities for serving instructors and managers. There has been a series of entrepreneurial and management training has been offered to vocational centre managers, technical college principals and other senior staff. These have been supported by the International Labour Organisation and also include aspects of financial management. The courses build on earlier initiatives from the GTZ project and more recently the Entrepreneurial management and Managing in the Community courses initiated by the Asian Development Bank through their Employment Oriented Skills Development Project.

#### *TVET 4 Management*

The Vocational Services Section of the TVET Division, along with the early support of officers from the Division of Planning, Facilitating and Monitoring, has been supporting provinces with the development of provincial TVET plans. Most of these have now been completed and they are then used to complete the vocational sections of the provincial education plans.

The management of TVET institutions despite the courses that are being offered still leaves much to be desired especially in the area of entrepreneurship. The institutions should be much more self supporting than they are rather less dependent upon Government support than is currently the case. Having said that, a number of the technical colleges are doing well in providing extra courses for the community and industry in their own areas.

#### *TVET challenges*

##### **How are we going to satisfy the obvious demand for a vocationally slanted formal post primary education?**

The vocational secondary schools, as noted earlier, have quite clearly not been hugely successful. This should not mean however that the concept of a post primary education comprising a mix of academic and skills education be forgotten about. There is scope within the new lower secondary curriculum for institutions to cut back on the number of core subject lessons taught and to increase the amount of time spent on skills education.

##### **How are we going to turn around attitudes toward vocational education and encourage people to see short courses as being relevant and valuable?**

There is a need for much greater awareness on this issue and for the TVET institutions themselves to become more welcoming to outsiders from the

community. It is equally important that relevant short courses be identified that can be demonstrated to provide income generating opportunities for the people in the local communities.

Having identified the courses that are relevant there is the going to be a need to provide a system whereby teachers, both those within the institutions and experts from outside, can be legally paid and be fully insured. Whilst progress has been made in this regard by the Teaching Services Commission there is still much to be done.

## Administration

### *A1 Organisational improvement*

The Review of Organisational Capacity has been completed and is in accordance with Government policy on public service reform. The revised structure has been completed and was approved by the Department of Personnel Management in April, 2007. Now that this has been done all positions have been declared vacant and can be advertised. Following a long delay in this process these positions were finally advertised in April of 2008 and it is anticipated that the process will be complete by the end of July.

Links with provinces have been enhanced with improved communication between the provinces and the Top Management Team of the Department of Education. This has been achieved through allocating each of the First Assistant Secretaries to a particular region (a recommendation of the Review of Organisational Capacity) and then to facilitate quarterly forums chaired by the respective First Assistant Secretary. These gatherings have largely been used to build dialogue between the Provincial Education Advisers and the Department but have also included other key provincial staff from both the education divisions and the wider provincial administration.

It is hoped that this strategy will drive the way forward towards a Sector Wide Approach (SWAp), or the Education Sector Improvement Program (ESIP) as we are calling it in Papua New Guinea, to development in the next two years and a greater role for provinces to play in policy dialogue. The provinces became much more heavily involved with the setting of Departmental annual targets and priorities during 2007 as a result of the regular quarterly meetings. The ESIP is being progressed by a Steering Committee established by the Secretary for Education in early 2007 and it is hoped that donor coordination will be improved upon as a result of this committee.

The Department will have a more physical presence in the regions from the middle of 2008 with the construction of offices in regional centres to house, at the outset, the Regional Management and Planning Advisers and the Regional Directors of Standards.

There is still a very high turn over of Provincial Education Advisers. Of equal concern is a more recent trend of officers being appointed who have not worked in an education office environment. These officers have, understandably, found it very difficult to cope with the varying responsibilities that they have. The

Department has been providing training for many different types of officers, including planners, District Education Administrators and Materials Officers, but little has yet been done for the Provincial Education Advisers themselves until in 2007 a program was put in place for some of the newly appointed Advisers. Their needs were identified and a program of support developed, including the use of ex senior staff, so that they are given every chance of being able to perform in their new roles.

Planning is still very weak at both provincial and national levels. The Provincial Education Plans have been very late in being completed and some are still awaiting final endorsement from the respective Provincial Executive Councils. The process for the development of the District Education Plans began in earnest in 2007 and all provinces will have been supported in this regard by the end of 2008. The divisions have completed annual operational plans that are all linked to Departmental priorities and then to specific strategies and activities contained in the National Education Plan. There has been mixed success at linking these activities to the funds available either through the recurrent budget or through the various donor supported projects. A timeline has been developed to map the way forward in this area.

The Department of Education has developed an HIV / AIDS policy after an extensive period of consultation both inside and outside of the Department. This was launched on World AIDS Day 2005. Since this launch there have been many successful activities as the response to the HIV/AIDS and STI epidemics is scaled up. A national HIV/AIDS/STIs Implementation Plan 2007-2012 was written, approved and distributed which guides the implementation of the Policy. It is noteworthy that 2008's education theme is **Learning about HIV/AIDS: our schools, our future, our responsibility** and there has also been progress made in teacher education and curriculum areas that have been outlined in the relevant sections of this book.

Although senior level support for HIV/AIDS remains strong DoE has yet to appoint a senior officer to manage the response so there remain concerns over sustainability. There is not yet an established multidisciplinary management team.

## *A2 Human Resources Management*

The Human Resource Development policy has been developed and a Teacher in Service Plan put in place that will cover all officers who are involved with the delivery of the reform curriculum.

Work has continued with the improvement of the teacher payroll and efforts are being put into improving the capacity in provincial centres to try and enhance and standardise good human resource practices. The sad reality is that there are still many teachers removed from the payroll come April of each year. The capacity to maintain records and process pay in the decentralised provinces remains of great concern. This lack of coordination of file management is reflected in a large number of teacher records that are missing around the country.

*A3 Financial management*

Work has been done on integrating the budget and planning processes particularly within the Department of Education. The divisional annual operational plans are linked to annual Department targets and to relevant minor outcomes and strategies from the National Education Plan. It is hoped that this will continue out into the provinces once all of the provincial education plans are completed. These plans will then be linked to the recurrent budget, the development budget and other sources of finance. This is a process that is going to have to be given significant support by the Department of Education and will become a part of the Education Sector Improvement Program.

A major achievement in recent years has been the establishment of sub imprest accounts in provinces. These accounts are subsidiary to the main imprest account established within the Department of Education as a vehicle to support Education Capacity Building Program activities. These accounts are currently being used by the Standards Officers and elementary teacher trainers to support their activities within the provinces and to a lesser extent by the Policy, Planning and Research Division to run training programs for district officers. Training has been provided to the appropriate provincial officers and it is expected that all accounts will have been established by the end of 2008.

A master assets register has been designed and is now in place both in the Department of Education and in the national institutions. Training has been provided to officers that work in these areas.

*A4 Information communications technology*

An information communications policy and plan has been prepared and this plan is now being implemented.

Major infrastructure and a communications network have been installed within the Department which, although not without its critics, is increasingly proving both resilient and reliable and now has some 550 users. The value of e mail as a means of speedy and reliable communication is now accepted throughout the Department and the system now caters for around 40,000 e mails each week. The full potential of the system will be more fully recognised when further enhancements are put in place to allow for voice traffic and when the intranet is more fully developed. Ultimately, the Department wishes to extend services to the provinces and trials are presently going on in New Ireland. In addition to this there are further remote users such as the Secondary Inspectors and some secondary schools.

There are still concerns regarding the sustainability of the system in that the Department has to identify a fairly significant sum of money to pay for the maintenance contract each year. In the last two years these funds have been scraped together by getting contributions from each of the divisions.

An Education Management Information System has been developed to combat the very poor record of data analysis and data management. A National Schools Census was conducted in 2007 and for the first time age data was gathered.

Although there have been some delays in analysing all of this information it will provide the Department with much more reliable data with which to inform policy. The response rate of greater than 80% was considered acceptable although it is expected that this will be improved on in the 2008 census that was conducted in March. A strategy of not providing school fee subsidies to schools that have not returned their census forms is being actively considered by the Department.

*A5 Communications systems*

Little progress has been made to date on either a media and communications policy or an overall awareness strategy. The National Education Plan was successfully launched and a nationwide campaign to publicise it was carried out utilising both print and electronic media. DVDs of a series of television programs produced have been distributed around the country.

*Administration challenges*

**How do we further progress the regionalisation process?**

Whilst progress has been made with physical infrastructure there is still much to be done before this is fully accepted. There should be a continued involvement of provincial officers in the future planning of development projects and departmental targets and priorities. It is equally important that provinces begin to take the lead in identifying projects for themselves for possible funding.

For their part, provinces should ensure that they are represented at all of the regional consultations and that they keep the Provincial Administrators informed regarding the outcomes of the meetings.

**How can we ensure that all teachers are paid efficiently and correctly?**

The management of teachers continues to be one of the major constraints that is affecting the education system. The Department needs to demonstrate a continued commitment to training and support for provincial staff and also to provide a better client service in Port Moresby. This latter is well under way with a client service centre being recently established on the ground floor of Fincorp Haus.

The provinces have to ensure that the information that they provide shows a distinct improvement in both quality of information and timing.

**How are we going to manage the response to the HIV / AIDS epidemic?**

Critical to this will be the formation of a sustainable management team who are well-led and well-trained. This will need to be done quickly and at both national and sub national levels. This management team will have a number of roles including:

- Coordinating our partners and donors
- Monitoring the impact of HIV/AIDS on the sector
- establishing an HIV/AIDS and reproductive health training unit to support Provincial teams, teacher education and resource development



- Forward planning – developing a responses for teacher attrition, orphans and vulnerable children and human resource management

## Donor support

The Government of Papua New Guinea continues to struggle with financing education beyond the payment of teacher salaries and the recurrent budget for the Department of Education. It is probably true to say that very little would have been achieved in recent years without the support of friends within the donor community. What follows is a brief description of current development projects being undertaken by various donors in Papua New Guinea.

### *AusAID*

AusAID remains the single biggest donor. The two major programs currently being implemented are the **Education Capacity Building Program (ECBP)** and the **Basic Education Development Project (BEDP)**. The Curriculum Reform Implementation Project (CRIP) was completed at the end of 2006. Some components of this project such as support for the development of the upper secondary curriculum and the Curriculum Standards Monitoring Test have been taken on by the ECBP.

The first phase of the ECBP is due to be completed at the end of 2008, although it is possible that it will be extended, and a design for the second phase of the program is currently underway. The BEDP has been extended till the end of 2009.

The goal of the ECBP is *'to strengthen the capacity of the national education system at the national, provincial and district levels to achieve quality improvements in education service delivery and, where appropriate, support local service delivery'*. It is the most wide ranging program yet to be implemented in the education sector in Papua New Guinea and has impacted on virtually every division of the Department of Education and, increasingly, is impacting on the provinces. In the future it will be the over arching program of AusAID support to education and will play a key role in the development of the ESIP. Care is being taken to ensure that the Department of Education and other stakeholders are involved at all stages in the design of activities being undertaken through the program and that all activities are consistent with the National Education Plan and with wider government initiatives such as the Services Improvement Program and the AusAID sub national initiatives.

The BEDP has been built on the lessons learnt from the Basic Education Infrastructure and Curriculum Materials Project that was completed in 2002. The BEDP will reach completion in mid 2008 and a decision will be made in the near future as to how the many advances that it has made can be consolidated and sustained. The BEDP seeks to strengthen infrastructure and school management at the school and the district level through a series of training programs for all stakeholders at the school and community levels. It is anticipated that any further BEDP type activities will be a component of the next phase of the ECBP.

Other related AusAID funded projects are the **PNG Australia Targeted Training Facility (PATTAF)**, and the **Incentive Fund**. PATTAF is increasingly funding

training in Papua New Guinea as opposed to providing scholarships for Papua New Guineans to study in Australia. Many secondary schools, as well as primary schools in the Simbu and East New Britain provinces, have benefited from Incentive Fund awards. The Incentive Fund is currently under review.

### *The European Union*

The recently initiated **Education, Training and Human Resources Development Programme** is the major European Union program in the education sector. There are five components to this program:

- A schools leadership and management programme. This will target the professional development needs of education leaders and managers in elementary and primary schools. The base for this training will be the teachers colleges
- A teacher training scholarship programme for primary education, in remote rural communities designed to alleviate teacher shortages in these areas.
- The country-wide provision of textbooks and library materials for primary education to support reform primary curriculum reform.
- Support for community-based vocational education responsive to industry and local needs and to self-employment. It will assist the National Department of Education to develop an effective approach to vocational education that will provide relevant training to youth and communities
- Support for community-based and community-driven non-formal education (literacy and skills development). This support will be provided through the Department for Community Development.

Other than this large program the EU has also supported two other projects. First is the **Improvement of Rural Primary Education Facilities Project (IRPEF)** providing school buildings and training for three disadvantaged rural districts – Ambunti, Raikos and Jimi. This project is nearing completion.

Second is the **Pacific Regional Initiative for the Delivery of Basic Education (PRIDE)** which supports the development of strategic education plans in Pacific Island countries. PRIDE has been of particular significance in the last two years with its support of the consultative phase of the provincial education plans and also the development of a monitoring and evaluation framework for the National and the Provincial Education Plans. New Zealand Aid is also involved with PRIDE.

### *Asian Development Bank*

The ADB continues to support the **Employment Orientated Skills Development Project** that is now largely hosted by the Department for Community Development. This project has supported the development of community based courses and then the funding for the delivery of these in a number of partner provinces around the country. The Skills Training Resource Unit (STRU) developed a large number of skills modules in many different areas.

### *Japan International Cooperation Agency (JICA)*

The major contribution of JICA is with the **Enhancing Quality in Education through Television (EQUITV)** project that JICA, in partnership with GOPNG, itself is funding in the East Sepik, East New Britain, New Ireland and Milne Bay Provinces and the Autonomous Region of Bougainville. This project facilitates the production of TV programs for Grades 7 and 8 in the maths and science areas to provide resource materials for teachers. In addition to the provinces noted a number of others have also benefited via funding from the Japanese funded Grass Roots Scheme. Unfortunately, the costs of purchasing and then installing the equipment for use in non urban schools, where there is a need for either a dish or an antenna, is simply too much for either these schools or their Provincial Governments to support. An independent review is due to be conducted in 2008 or 2009 following completion in order to determine the value of what has been achieved.

### *New Zealand Aid*

Further to support of the PRIDE project the NZAID is still supporting the Department of Education with the **Schools Journal** project. They support the operational expenses, production and distribution of the journals. NZAID remain involved with supporting community training and vocational institutions on Bougainville.

### *UN organisations / UNICEF*

The strength of UNICEF involvement in education is at the community level rather than at the central Department level. Examples of these interventions are **Accelerating Girls Education (AGE)**, the **Child Friendly Schools** and the **Health Promoting Schools** projects.

UNICEF is also supportive of the fast track initiative being taken towards achieving Universal Basic Education, the chief driver of which is the World Bank.

The UNFPA continues to fund the **Population Education** project that is being implemented by the Curriculum Development and Assessment Division.

### *Indonesia / Papua New Guinea education support program*

This is a part of the bilateral relationship that has existed since 1975. Following a number of joint border commission and Senior Officer Meetings a number of points of agreement have been reached on education, training, culture and tourism. Activities since 2004 have included; visits for education personnel from both countries, exchange of both personnel and information, the sponsorship of a small number of Grade 12 students in PNG and post graduate scholars at Indonesian colleges and universities, and the teaching of Bahasa Indonesia at UPNG.

## **Finances**

The successful implementation of the National Education Plan is to a large degree dependent upon the system being able to take advantage of the cost saving measures that have been put forward.

The major one of these is that of making the most efficient use of teaching resources. There is much to be done although a Position Allocation Committee has been established chaired by the Chairperson, Teaching Services Commission. This committee has wide representation that includes two Provincial Education Advisers. A technical working group to support this Committee has been established.

The Department of Education continues to be under funded in its recurrent budget. Core activities such as inspection of schools, the examinations process and the operation of teachers colleges have to have their budgets propped up by the Education Quality Program which is a component of the subsidy program. The table below shows the Department of Education recurrent budget for the years 2006 to 2008. The large drop in the vocational education program in 2008 is due to special education being removed and included in the Teacher Education program.

Program	2006 Actual	2007 approp	2008 approp
1. Top Management and General Administration	56,440.3	54,312.4	57,488.4
Subsidies within (1)	42,392.7	43,000.0	43,000.0
2. Education Standards	10,256.4	11,149.9	10,734.0
3. Teacher Education	8,822.5	12,393.6	13,999.3
4. Literacy and Awareness	444.1	428.0	548.8
5. General Secondary Education	11,996.2	12,460.2	12,042.6
6. Vocational Education	3,992.5	3,881.4	2,476.2
7. Technical Education	12,053.1	11,752.7	12,200.4
8, Libraries	1,033.9	1,191.2	1,175.4
9. Archives	495.9	648.0	636.8
10. Primary Education	21,484.7	18,133.9	17,905.6
Totals	127,019.6	126,351.3	129,207.5

## The Way Forward

There is still much to be done if the outcomes expected in the National Education Plan are to be achieved. A number of these have been outlined in the various sections of this document.

The Papua New Guinea education system is a decentralized one and as such it is not good enough to have simply a National Education Plan. In order to achieve satisfactory outcomes there is going to have to be ordered implementation at the sub national level. There is still a lack of planning and administrative capacity at the sub national levels. The majority of the provincial education plans have now been completed although a number have yet to be formally endorsed by their respective Provincial Executive Councils. One of the requirements of the Organic

Law is that all districts should have District Development Plans that will cover all sectors. The Department will be supporting the provinces in their moves to develop the District Education Plans. At the same time as this is happening, schools will also be developing their own School Learning Improvement Plans.

Critical to the success of the education system is the performance of the children in the classroom. In order that this can be sustained at a high level great emphasis is going to have to be put on the implementation of the teacher In Service Plan.

Papua New Guinea is still indebted to our many friends in the donor community for the support that they provide us with for our development activities. The Department needs to continue to work closely with these donor agencies to ensure that the support that they provide is consistent with the outcomes expected in the National Education Plan and that this support complements, rather than duplicates, the efforts that are being made by the Department itself. It is important then that we continue to work on the development of a Sector Wide Approach (a SWAp) – or the Education Sector Improvement Program (ESIP) as the SWAp will be called in Papua New Guinea.